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INJECTABLES ACCESS COLLABORATIVE

Family Planning Supply Chain Assessment in Malawi

Photo: PATH/Will Boase

Family Planning Supply Chain Assessment in Malawi

This report was produced by JSI and inSupply Health. It describes the findings of a comprehensive assessment of the supply chain system for family planning in Malawi to identify areas for improvement and provide recommendations for interventions to improve system performance. The assessment was funded through the Injectables Access Collaborative project, led by PATH in partnership with CHAI, Jhpiego, JSI, and inSupply Health.

Acknowledgments

We would like to thank all the respondents who participated in this assessment for their valuable inputs, including respondents from the Ministry of Health, Central Medical Stores Trust, regional health offices, district health offices, service delivery points, implementing partners, and development partners and donors. Finally, this assessment would not have been possible without the support of CHAI in Malawi, as well as dedicated efforts of JSI and inSupply Health staff who were part of the assessment team.

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Acronyms and abbreviations

3PL	Third Party Logistics Provider
AC	Access Collaborative
AMC	Average Monthly Consumption
BLM	Banja La Mtsogolo
CHAI	Clinton Health Access Initiatives
CHAM	Christian Health Association of Malawi
CMST	Central Medical Stores Trust
COC	Combined Oral Contraceptives
DHIS2	District Health Information System
DHO	District Health Office
DMPA-SC/ IM	Depot Medroxyprogesterone Acetate Subcutaneous/Intramuscular
DISC	Delivering Innovation in Self Care
DTC	Drug Therapeutic Committee
eHIN	Electronic Health Information Network
EOP	Emergency Order Point
FGD	Focus Group Discussion
FP	Family Planning
GFPVAN	Global Family Planning Visibility & Analytics Network
GHSC - PSM	Global Health Supply Chain Program- Procurement and Supply Management
HMIS	Health Management Information System
HC	Health Center
HSSP	Health Sector Strategic Plan
HTSS	Health Technical Support Services
IMPACT	Information Mobilized for Performance Analysis and Continuous Transformation
Jhpiego	Johns Hopkins Program for International Education in Gynecology and Obstetrics
JMS	Joint Medical Store
JSI	John Snow, Inc
LMIS	logistics management information system
LMU	Logistics Management Unit
MHCLMS	Malawi Health Commodities Logistics Management System
MIP	Malawi Implementation Plan
MOH	Ministry of Health
MOS	Month Of Stock
NMS	National Medical Store
OJT	On-the-job training
OpenLMIS	Open Logistics Management Information System
QMP	Quality Management Pharmacist
RH	Reproductive Health
RHC	Reproductive Health Coordinator
RHD	Reproductive Health Department
RMNCAH	reproductive, maternal, newborn, child & adolescent health
RMS	Regional Medical Storer
SC	Supply Chain
SDP	Service Delivery Point
SOH	Stock On Hand
SOP	Standard Operating Procedures
TMA	Total Market Approach
TWG	Technical Working Group
UNFPA	United Nations Population Fund
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WFP	World Food Program

Overview and background

Project overview

The Injectables Access Collaborative

Led by PATH in partnership with CHAI, Jhpiego, JSI, and inSupply Health, the Injectables Access Collaborative (AC) provides data-driven technical assistance, coordination, and tools to ensure that women have increased access to DMPA-SC and self-injection as part of an expanded range of contraceptive methods, delivered through informed choice programming. Since 2017, the AC has been working with ministries of health and partners across public and private sectors to facilitate introduction and scale-up of the self-injectable contraceptive DMPA-SC. The AC provides dedicated technical assistance (TA) to integrate DMPA-SC alongside other methods in family planning programs—including support on monitoring and evaluation, health worker training and supervision, supply chain management, and advocacy and policy. The AC also shares data and information gathered across countries with international donors to help shape the global market for DMPA-SC, to ensure reliable supply is available to meet demand.

DMPA-SC in Malawi

Malawi has been a front-runner country in the scale-up of DMPA-SC and self-injection, completing public-sector scale-up within two years. As of 2023, national scale-up in the public sector is considered complete, with 100 percent of eligible facilities having at least one provider trained to administer DMPA-SC and initiate self-injection. On average, 27 percent of DMPA-SC visits were for self-injection in 2023.

Under the AC's short-term TA workstream, the inSupply/JSI team aimed to undertake supply chain assessments in select countries during Year 1. Malawi was identified as a beneficiary following consultations with key stakeholders in the country. Through collaborative efforts with the Malawi AC CHAI team, MOH, and local supply chain stakeholders, the assessment aims to uncover challenges hindering the full-scale availability of contraceptives, with a focus on DMPA-SC. This initiative is crucial for promoting DMPA-SC as part of a comprehensive range of contraceptive options, thereby improving reproductive health outcomes in Malawi.

Executive summary

The Injectables Access Collaborative (AC), led by PATH in collaboration with CHAI, Jhpiego, JSI, and inSupply Health, aims to enhance access to DMPA-SC and self-injection as part of a comprehensive range of contraceptive methods. In Malawi, the AC has played a pivotal role in facilitating the scale-up of DMPA-SC and self-injection within the public sector. This report presents the findings of a supply chain assessment conducted to identify challenges and opportunities for improving the availability of contraceptives, with a spotlight on DMPA-SC. It builds on a previous FP commodity tracking exercise led by RHD in 2023.

The assessment utilized a mixed-method approach, including desk reviews, focus group discussions, and facility visits, to evaluate various aspects of the family planning supply chain system. Key findings reveal persistent understocking of DMPA-SC in 2023, intermittent stockouts of FP products, excessive overstocking of Levoplant and IUCD, procurement and shipping delays, substantial donor dependency with a 26 percent funding gap, reliance on issues data for consumption estimation, accumulation of expired stocks due to disposal delays and lack of reverse logistics, and delays in finalizing and disseminating the Logistics Management System SOP Manual.

The report provides comprehensive recommendations to address these challenges and improve the efficiency and effectiveness of the family planning supply chain in Malawi. Key recommendations include transitioning to a pull system for commodity resupply, reporting and utilizing dispensed-to-user data, improving procurement efficiency and communication between donors and MOH, adherence to distribution schedule, amending the contract between CMST and 3PL to include reverse logistics of expired commodities, upgrading storage facilities, disseminating the newly developed Health Commodities Logistics Management System SOP and implementing efficient client training and counselling methods.

Implementation of these recommendations is essential to ensure uninterrupted access to contraceptives and improve reproductive health outcomes in Malawi. Collaboration among government agencies, development partners, and other stakeholders are crucial to successfully implement these interventions and sustain progress in the family planning supply chain system.

Summary findings

These findings highlight the strengths and challenges of the FP supply chain system. Findings were endorsed through a validation meeting with DTC and RH Technical Working Group.

Product availability	• DMPA-SC remained consistently understocked for the entire period of 2023, except for the month of May. • By the end of 2024, female condoms and DMPA-IM may face stockouts across all levels if ongoing efforts to replenish supplies are not successful. • Levoplant and IUCD are highly overstocked. • Historical data reveals sporadic stockouts in different regions for certain FP products.
Quantification and procurement	• Issues data, collected through Open LMIS, is used in generating consumption-based forecasts. Other methodologies (services, demographic) also used in generating forecasts. • Heavy donor dependency on contraceptive procurement, with a notable funding gap of 26 percent, especially for DMPA-IM and DMPA-SC • Delays in procurement and shipping have led to consistent stock shortages of DMPA-SC
Inventory management	• Constrained availability of family planning (FP) commodities in the visited health facilities were particularly notable in 2023 for items like DMPA-IM, DMPA-SC, and 1-rod 3-year implant. • Push system which result in supply imbalances (overstock/understock) and lack of understanding on emergency ordering. • RHD is using parallel SC system from multiple donors leading to delays in order processing and disruption of SC.
Logistics management information system	• Dispensed to user data, although collected by facilities with eHIN, is not available on open LMIS to inform resupply decisions. • Facilities with internet connectivity can enter data directly into the OpenLMIS, while others submit reports to nearby facilities or districts for data entry. • RHD calculates resupply quantities based on consumption, stock levels, and maximum stock levels (informed push), with limited consideration given to amendments suggested by district staff.
Transport and distribution	• Challenges with the reverse logistics of overstocked, expired and recalled FP products from facilities to the district stores, • Commodities going to youth services, outreach clinics and community not tracked, and in some cases missed on reports. • CMST waits for essential medicines order to distribute together with FP commodities leading to delays in distribution of FP commodities. • Frequent changes in distribution schedules and non-adherence to schedules, leading to delays in delivery of products.

Summary findings

These findings highlight the strengths and challenges of the FP supply chain system. Findings were endorsed through a validation meeting with DTC and RH Technical Working Group.

Storage	• Accumulation of expired stocks at all levels, consuming the storage space which should be used by usable stocks due to delays in disposal procedures (long approval processes) and lack of funding to board off expiries. • Lack of capacity for district councils and facilities to maintain SIABs due to higher maintenance costs.
Organization and staffing	• Some job positions that have supply chain duties do not have documented job descriptions describing those duties in detail. • District family planning supply chain committees are found in some but not all districts.
Organizational support for logistics	• Supply chain training, largely driven by development partners, is provided to staff but can be fragmented, and additional coaching and mentoring opportunities are desired for skill enhancement. • A logistics System SOP Manual (MHCLMS SOP) was developed in July 2023 but is in draft form (yet to be finalized and disseminated), making it difficult to use or reference officially.
Product use	• FP access barriers persist despite the availability of ten FP methods, including limited operating hours, unfavorable provider attitudes, insufficient skills, erratic stock availability, and cultural/religious beliefs. • There is a perception of substandard FP services by clients due to long queues and lack of privacy. • 100 percent of eligible facilities have at least one person trained in DMPA-SC and SI. There is provider bias towards administering injections themselves (less time), and a shortage of reinjection calendars.
Finance and donor coordination	• Malawi's FP program relies heavily on donor support, covering over 90 percent of procurement and operational costs, though government commitment is growing with a 10 percent annual increase in contributions. • MOH has around 3 million units of DMPA-SC from their most recent supply plan that are currently unfunded • Public-sector facilities are major providers of family planning services, accounting for about 60 percent, with not-for-profit and private sectors making up the rest, underscoring a reliance on government facilities.

Summary recommendations

These recommendations were developed and validated jointly with all stakeholders through focus group discussion workshops held with subnational and national stakeholders.

Quantification and procurement	• MOH should transition to collecting and using dispensed-to-user data for quantification to improve forecasting accuracy. • Future forecasts by Quantification team should be grounded in reported actual consumption and service data which should be regularly reviewed (supply plan monitoring) and updated based on new data and insights. • Improve procurement efficiency and communication between donors, MOH counterparts and TA partners, to align on future commodity requirements, funding cycles, lead times, and procurement planning.
Inventory management	• Transition from a push system by a pull system for FP commodities, enabling ordering based on actual consumption. A phased approach should be used for learning before scaling it up to country. • MOH should ensure availability of stock cards and other inventory management forms/ tools for efficient inventory management. • MOH to establish a proper mechanism for the redistribution of overstocked commodities to minimize stock imbalances, maximize the available storage space and prevent expiries.
Logistics management information system	• MOH to reinforce use of electronic reporting and roll out Open LMIS and eHIN to more facilities with electricity and internet connectivity. • MOH to expand LMIS reports and Open LMIS to capture dispensed to user data. • MOH to explore the possibility of establishing linkages between OpenLMIS, DHIS-2, and eHIN. • Implement mechanisms to track consumption data at youth services and community FP. • Strengthen District Supply Chain committees to support data availability, quality and use for decision making initiatives.
Transport and distribution	• Amend the contract between donors with 3PL to include collection and transportation of expired, damaged, or recalled commodities from facilities and districts back to CMST for proper disposal and submission of Delivery notes/ proof of delivery to RHD by 3PLs. • Integrate public health product delivery in a manner that one delivery will be made per facility per period. • Improve adherence to distribution schedules, minimize changes, and, when changes are made, they should be communicated in advance.
Storage	• Yearly disposal of expired drugs to prevent accumulation of expired medicines which consume the storage space at facilities and districts. • The central level should continue supporting maintenance of the SIABs, and also consider constructing permanent structures at SDPs
Organization and staffing	• MOH/HTSS/LMU should conduct an audit of job descriptions for all staff who are intended to have supply chain responsibilities and update or revise job descriptions to ensure that all relevant supply chain functions are included to improve accountability of staff. • All districts should establish family planning supply chain committees and regularly conduct committee meeting which can include other program commodities.

Summary recommendations

These recommendations were developed and validated jointly with all stakeholders through focus group discussion workshops held with subnational and national stakeholders.

Organizational support for logistics

- MOH/HTSS to establish standardized terms of reference for monitoring/supervision visits, outlining visit scheduling, preparation, activities, including supply chain performance indicator monitoring, and post-visit follow-up protocols.
- MOH/HTSS/LMU to ensure that all facilities receive a copy of the new MHCLMS 2023 SOP Manual as soon as it is published/available for distribution.
- Conduct a comprehensive assessment to identify supply chain training needs, develop targeted programs integrating coaching and mentoring, leverage support from development partners, explore funding opportunities, and ensure effective resource allocation for sustainable skill enhancement.

Product use

- Health education unit to ramp up behavior change communication addressing FP service uptake barriers including myths, misconceptions, and cultural/religious beliefs.
- Implementing partners should prioritize printing and distributing reinjection calendars and job aids to support self-injection, while sensitizing providers to employ efficient client training methods such as group sessions, video demonstrations, and locally translated job aids.
- Develop a communication/coordination mechanism for facilities to report their needs to program coordinators, DHOS, RHD, and partners.

Finance and donor coordination

- MOH/Finance should explore diversifying funding sources for FP products, services, and supply chain operations, considering options like adopting a total market approach and potentially introducing nominal out-of-pocket payments, mindful of potential financial burdens on clients.
- Funding gap for FP commodities (including DMPA-SC) needs be communicated to the funding agents for commitment and to regularly monitor the supply plan for adjustments and updates.

To ensure sustainable progress, it is vital for the Ministry of Health, in collaboration with development partners and relevant stakeholders, to prioritize the implementation of the recommendations outlined in this report. Prioritization should involve categorizing recommendations into high, medium, and low priority based on their urgency and potential impact. Once prioritized, the higher priority recommendations should be selected for further breakdown into specific costed activities, which can then be integrated into the master plan for the Reproductive Health Directorate (RHD). By incorporating these activities into the master plan, the Ministry can ensure that they receive the necessary funding and resources for successful execution, leading to tangible improvements in the family planning supply chain system for Malawi.

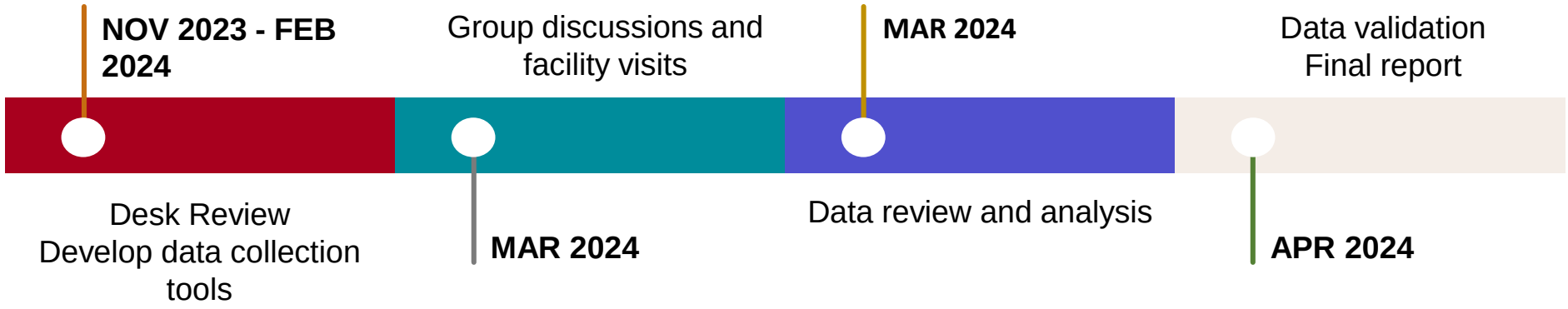
Methodology

Assessment timeline

This assessment was planned and conducted over a period of five months from November 2023 to April 2024. The assessment began in November 2023 by conducting initial engagements with the CHAI Malawi team to understand the local context followed with a desk review of existing reports including previous supply chain assessments conducted (commodity tracking activity), and FP logistics and service data. The team designed assessment tools for each level of respondents—central, regional and facility level—including questionnaires for focus group discussions and facility visits. The in-country data collection was conducted over a period of one week from March 5–8, 2024 and included a one-day central-level focus group discussion, followed by three one-day regional focus group discussion workshops, and capped by facility visits to six facilities in the three focus regions.

Following the data collection phase, the results were synthesized and summarized. Supply chain gaps were identified, and recommendations developed to address those gaps. A data validation workshop was conducted with selected stakeholders where the findings and recommendations were reviewed and validated. This report represents the validated findings and agreed recommendations.

Figure 1. Assessment timeline



Objectives and methodology

Objectives

The main purpose of this assessment is to identify the key gaps, challenges, and opportunities for improvement of the FP supply chain system. The objectives of this assessment are:

- Map the flow of family planning commodities and logistics information in Malawi's public health (FP/RH) supply chain.
- Evaluate the performance of key logistics indicators of contraceptives at central and regional level.
- Identify supply chain bottlenecks from end-to-end affecting contraceptive product availability at the last mile.
- Develop key recommendations for intervention to ensure undisrupted supply and availability of contraceptives at service delivery points.

Overall methodology

The assessment team collected data through a mixed-method approach including desk review of logistics data, reports and policies, group discussions with key national and subnational stakeholders, and field visits to service delivery points.

The following key elements of the supply chain system were assessed:

- Organization and staffing
- Logistics Management Information System (LMIS)
- Product Selection
- Forecasting
- Procurement
- Inventory Control Procedures
- Warehousing and Storage
- Transport and Distribution
- Organizational Support
- Product Use
- Finance / Donor Coordination / Commodity Security Planning

Assessment design

Desk Review: The assessment team obtained and reviewed existing supply chain policies, strategic plans, and previous assessments. Logistics data from the GFPVAN and facility levels for the last one year were collected to measure historical performance of key supply chain indicators.

Group Discussion Workshops: A National Focus Group Discussion was held in Lilongwe along with three Regional Focus Group discussions held in Blantyre, Mzuzu, and Mponela. Critical components of the logistics system were assessed with the aim of identifying strengths, challenges and recommendations for each supply chain function. The National level FGD included participants from HTSS, RHD, CMST and Implementing Partners. A list of participants can be found in the annex.
The team designed and administered a comprehensive questionnaire where participants were broken up into small groups to answer questions pertaining to each component of the supply chain system. All responses were captured electronically. Each group developed a list of strengths, challenges, and recommendations for their component and presented it to the larger group for feedback and validation.

Facility Visits: Facility visits were conducted at a few sample SDPs in the Northern, Central, and Southern Regions of Malawi. Each visit included interviews with facility supply chain staff, a physical count of sample FP commodities stock on hand (SOH), a review of logistics records and reports, and observations of storage conditions. All responses were captured electronically in an excel based tool.

Results Validation: Following the data collection phase, the team analyzed the data collected to develop preliminary findings and recommendations. A consensus building meeting was held with stakeholders during the scheduled DTC meeting as well as the RHD TWG meeting to obtain feedback and agree on the recommendations.

National Focus Group Discussion workshop.
Photo: inSupply Health/Johnson Anyona

Facility visit to Mapale DHO. Photo: CHAI/George Maruwo

Findings and recommendations

The findings and recommendations in this report are based on the observations and opinions of the respondents and the assessment team. Many of the assessment findings are based on information provided by respondents and are therefore affected by the knowledge, opinions, truthfulness, and biases of the respondents. Responses may have also varied by facility, as different facilities have varied opinions and knowledge with regards to the system. Some of the findings are based on data collector observations and interpretations. Any findings shown are based on desk review, interviews with a sample of facilities and individuals, and may or may not represent the situation in all facilities in Malawi.

I. Product availability

FP stock status at national level (central + SDPs)

A well-known slogan in the public health world is “No product, no service.” FP clients should have access to the method of their choice when and where they need it. A key measure of a strong and dynamic supply chain system is adequate availability of contraceptives at service delivery and resupply points. FP commodity availability was assessed at the central warehouses and SDPs through desk review of stock status reports, Global FP VAN, and data collected during the facility visits.

The National min-max parameters (central+SDP) has been set at 7-15 MOS. As of Jan 2024, the stock status was as follows as illustrated on Figure 2:

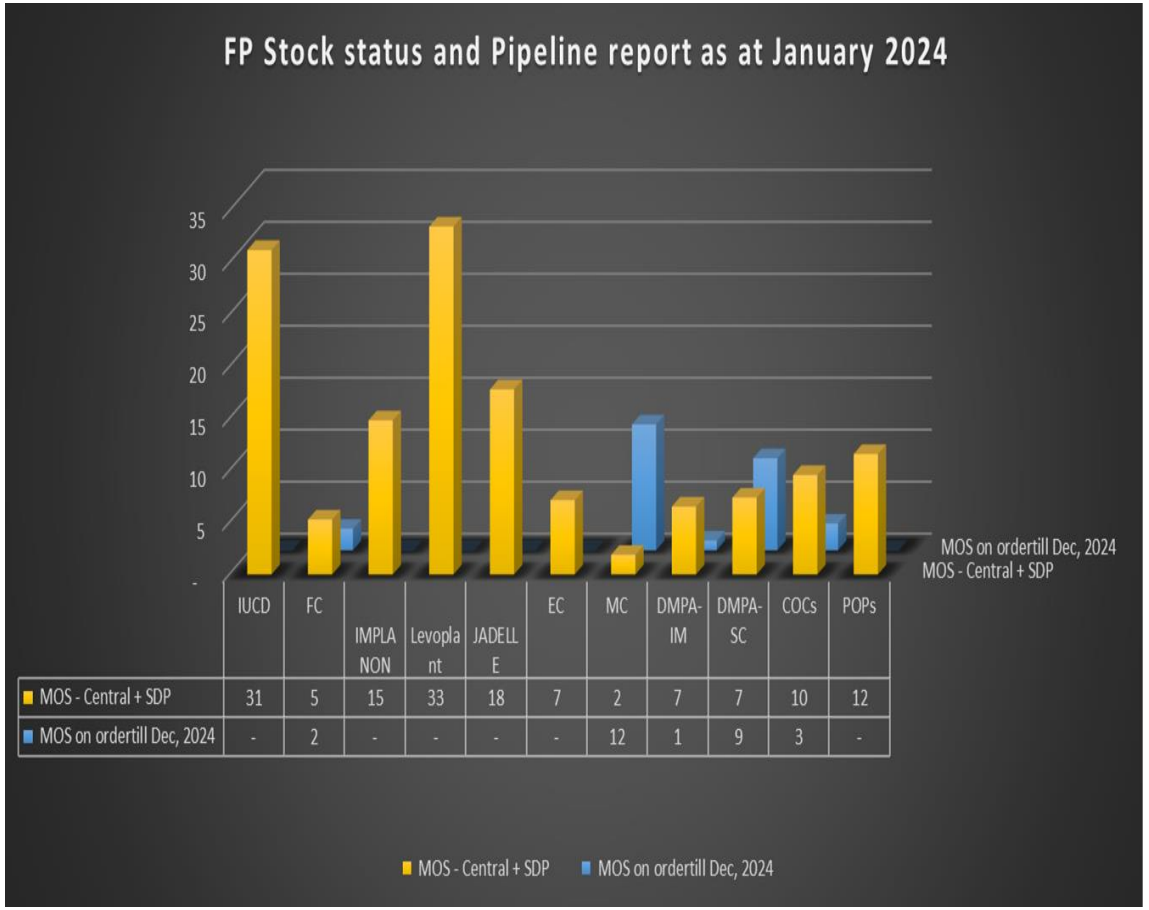
- **Understocked:** Male condoms (2 MOS), Female Condoms (5 MOS)
- **Optimally stocked:** EC pills (7 MOS), DMPA-IM (7 MOS), DMPA-SC (7 MOS), COCs (10 MOS), POPs (12 MOS), Implanon (15 MOS)
- **Overstocked:** Levoplant (33 MOS), IUCD (31 MOS), Jadelle (18 MOS)

The pending orders are as follows: Female condoms (2 MOS), DMPA-IM (1 MOS), COCs (3 MOS), DMPA-SC (9 MOS), and male condoms (12 MOS). Considering the entire supply chain, both female condoms and DMPA-IM are at risk of facing stockouts across all levels by the end of 2024 if no additional shipments are approved and received. Conversely, the remaining family planning commodities seem to have ample stock levels to satisfy the anticipated demand for the remainder of 2024. Therefore, it is recommended to prioritize and expedite orders for female condoms and DMPA-IM to prevent stockouts.

To mitigate the risk of wastage, it is imperative to assess the expiry risk of Levoplant and IUCD which are highly overstocked.

*Data source: USAID GHSC PSM RH FP/MNCH COMMODITY STOCK AND FP GAP UPDATES. March 15, 2024

Figure 2. FP stock status as of January 2024



	IUCD	FC	IMPLANON	Levoplant	JADELLE	EC	MC	DMPA-IM	DMPA-SC	COCs	POPs
MOS - Central + SDP	31	5	15	33	18	7	2	7	7	10	12
MOS on ordertill Dec, 2024	-	2	-	-	-	-	12	1	9	3	-

FP stock status at national level (central + SDPs)

Implementing proactive measures such as redistribution can help alleviate this risk. Additionally, targeted demand generation initiatives could enhance the uptake of these products, ensuring their efficient utilization and minimizing the likelihood of expiry-related losses.

The assessment team conducted visits to six SDPs across the three regions of North, Central, and South Malawi. At each facility, the team conducted a physical inventory count of COCs, DMPA-IM, DMPA-SC, Jadelle, and Implanon in the facility's storage area. Of the six facilities visited, only one was found to be out of stock of Jadelle, while all other facilities had the sampled family planning methods available on the day of the visit. However, upon reviewing historical records, some stockouts were discovered in the previous quarter:

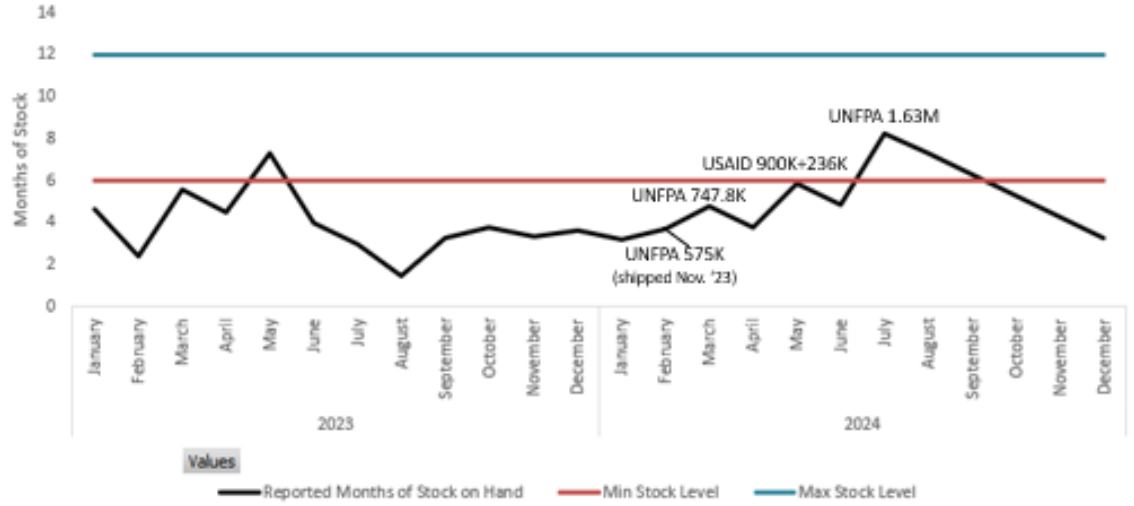
- Central region - Jadelle (11 days)
- Southern region - DMPA-IM (50 days), Jadelle (12 days)

The Northern region did not experience any stockouts of the sampled FP methods in the past quarter.

DMPA-SC stock status (national level)

Historical data was obtained from the Global FP VAN to review national-level (Central+SDP) stock status for DMPA-SC since January 2023. As seen in Figure 3 below, with the exception of May 2023, the country remained consistently understocked for the entire period of 2023.

Figure 3. DMPA-SC stock status based on approved and planned orders



Looking ahead into 2024, there are several approved orders that, if fulfilled as planned, will ensure the country maintains a relatively favorable stock position, until about Sept/Oct 2024 at which point the inventory will fall below minimum stock levels if additional orders are not funded and scheduled.

- UNFPA - 747, 800 (Mar 2024), 1,633,600 (Aug 2024)
- USAID - 900,000 (Mar 2024), 236,000 (May 2024)

It is crucial to highlight that the MOH has around 3 million units from their most recent supply plan that are currently unfunded. It is recommended that these needs be communicated to the funding agents for commitment and to regularly monitor the supply plan for adjustments and updates.

* Data Source: GFPVAN & Malawi Q1 2024 National Supply Plan

II. Quantification and procurement

Forecasting

The Health Technical Support Services (HTSS) of the MOH coordinates the FP quantification exercise in liaison with disease programs and implementation partners annually, supplemented by mid-year reviews. Previously, the Quantification team utilized various manual and electronic tools, causing non-standardization and duplication issues. In 2022, Malawi adopted the Quantification Analytics Tool, an updated tool for country-led forecasting and supply planning, integrating it into their routine contraceptive workshops. QAT enables users to do multimethod forecasting, compare outputs, quickly transfer the forecast to the supply plan module to optimize commodity procurement and delivery schedules, monitor the stock status of products and share data with external platforms and key stakeholders.

Several methodologies are used in generating forecasts, including consumption, service, and demographic method. While consumption data is sourced from Open LMIS and utilized for quantification purposes, this data doesn't directly reflect the amount of FP commodities dispensed to individual users. Rather, it represents the quantity issued by the pharmacy store to dispensaries, family planning clinics, or outreach programs, which might not accurately represent actual consumption.

Forecasting for DMPA-SC

Forecasts inherently involve estimating future outcomes, acknowledging the inevitability of errors. A review of the forecast accuracy (see Figure 4) for DMPA-SC in 2023 between the period of Jan 2023 and Oct 2023 uncovered an error of approximately 14.3 percent. Although this looks reasonable, a month-by-month analysis uncovers that with the exception of Aug and Sep 2023, the need for DMPA-SC was over forecasted. To mitigate this risk in future, it is advised to incorporate dispensed-to-user data for forecasting, regularly monitor and update forecasts and supply plans, and adhere strictly to inventory control policies.

Figure 4. Forecast accuracy for DMPA-SC

	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
Actual AMC	234,231	178,313	165,482	145,990	163,488	188,230	197,837	509,456	316,140	149,850	2,249,017
Forecasted AMC	257,025	257,025	257,025	257,025	257,025	257,025	257,025	257,025	257,025	257,025	2,570,250
										Forecast error (%)	14.3

Data Source: GFPVAN & Malawi Q1 2024 National Supply Plan

Forecasting

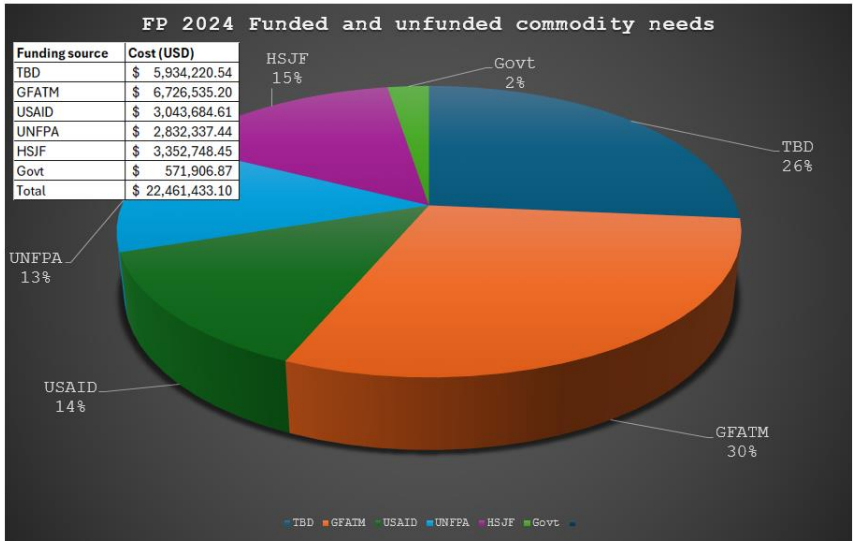
A review of the current forecast (2024) for DMPA-SC indicates an overestimation in demand, stemming from assuming an equal split in aggregate consumption between DMPA-IM and DMPA-SC. Service statistics reveal that 59.1% of injectable users opt for DMPA-IM, while only 40.9% choose DMPA-SC. While this overestimation aimed to accommodate self-injection, actual consumption suggests a more cautious forecast for DMPA-SC is warranted. Future projections should be grounded in reported actual consumption and service data. A forecasted AMC of about 200,000 to 250,000 in 2024 seems more realistic based on trends over the past couple of years for DMPA-SC compared to the current projection of 368,000 per month.

Data Source: GFPVAN & Malawi Q1 2024 National Supply Plan

Procurement planning

While CMST is the parastatal agency responsible for procuring essential medicines and medical supplies for all public facilities in Malawi, contraceptives are primarily procured by USAID and GHSC-PSM. As of March 2024, there exists a 26% funding gap for contraceptives, notably DMPA-IM ($2.16 million) and DMPA-SC ($1.632 million) constituting the largest proportion of unfunded contraceptives. As seen in Figure 5 below, the largest share of committed funds for the latest FP procurement plan are Global Fund (30%), HSJF (15%), USAID (14%) and UNFPA (13%). The least proportion has been committed by the Government of Malawi (2%), indicating heavy donor-dependency on FP commodity procurement.

Figure 5. 2024 FP funded and unfunded commodity needs

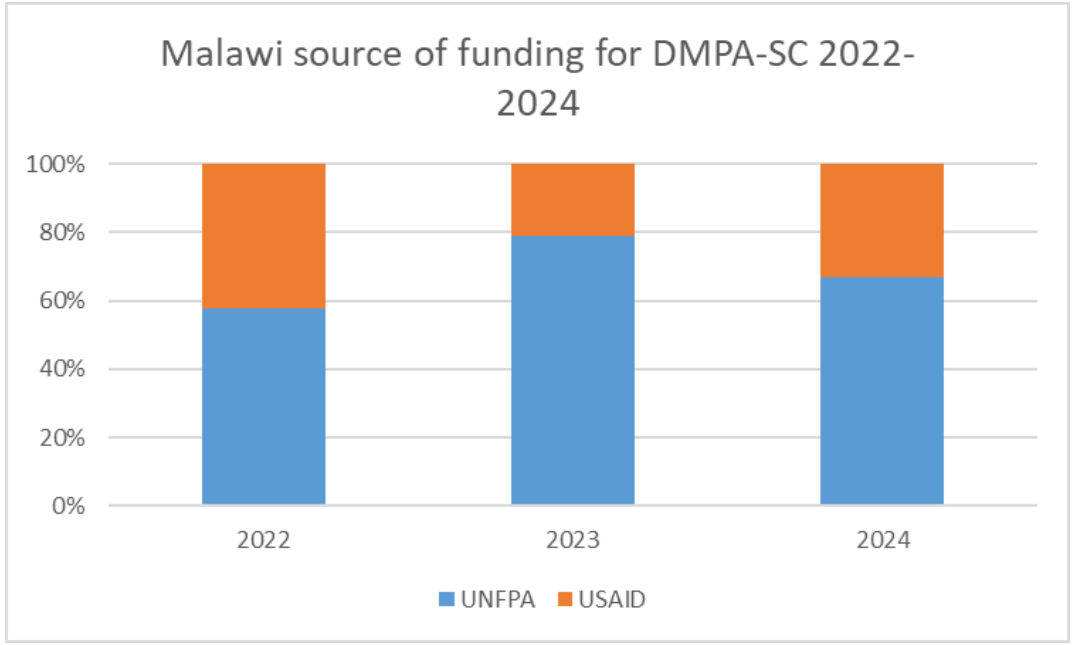


Data source: USAID GHSC PSM. Presented at the March 2024 RH TWG meeting

DMPA-SC procurement planning

An analysis of the source of funding for procurement of DMPA-SC unveils UNFPA as the most important source in the past three years as shown in Figure 6 below.

Figure 6. Source of funding for DMPA-SC procurement



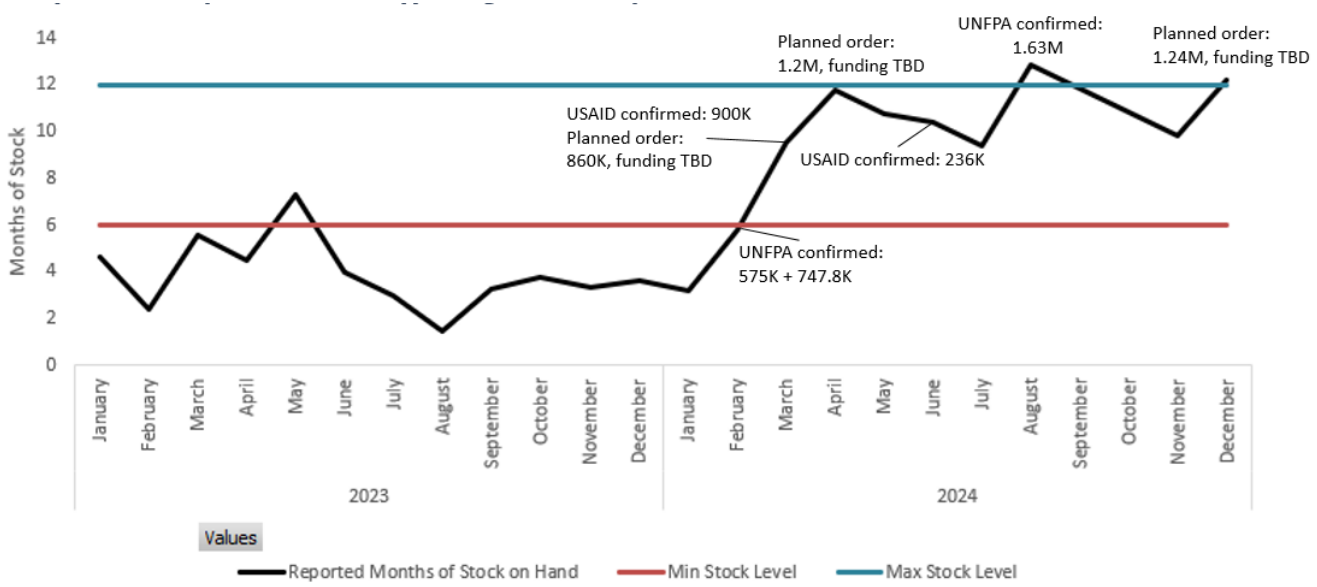
However, based on total Q2 2024 supply plan projections: 45% will come from UNFPA, 17% from USAID, 3% from Govt funding, 34% remains unfunded.

Procurement planning

Despite the receipt of multiple shipments of DMPA-SC from both UNFPA and USAID, the national stock status for this product consistently fell below the minimum level for all but one month in 2023, as seen in Figure 7. This indicates that the approved orders for the product were inadequate to maintain inventory at the desired optimum levels. Moreover, none of the approved orders were received during the planned month. For instance, a UNFPA-procured shipment of 1,000,000 DMPA-SC units, scheduled for receipt in March 2023, arrived in May 2023, while a USAID-procured shipment of 658,600 units, originally planned for August 2023, was received in November 2023. With a lean central level min-max inventory parameter of 6 to 12 months of stock, such delays in the procurement and/or shipment processes can quickly cause stock shortages, curtailing service provision.

Looking ahead, the current supply plan—if fully funded and shipped as planned—will put the country's DMPA-SC inventory for 2024 in a healthy position. It is therefore recommended that the supply plan be swiftly presented to development partners for additional funding commitments and reviewed with government agencies for domestic financing allocations.

Figure 7. Malawi stock status based on approved and planned orders



Data Source: GFPVAN & Malawi Q1 2024 National Supply Plan

Gaps and recommendations

Gaps	Recommendations
Issues data, rather than dispensed-to-user data, is used for quantification.	RHD should collect and use dispensed-to-user data for quantification to improve forecasting accuracy.
The current 3-day duration of the national FP quantification exercise is insufficient to comprehensively dispense of the exercise.	RHD should allocate one week for the FP quantification exercise. The supply plan should then be presented to development partners in a timely manner for additional funding commitments.
There appears to be an overestimation of the demand for DMPA-SC due to the assumptions adopted during forecasting of a 50-50 split of SC and IM	Future projections by quantification team should be grounded in reported actual consumption and service data which should be regularly reviewed (supply plan monitoring) and updated based on new data and insights.
There is approximately a 26% funding gap for public sector contraceptive procurement in 2024, with injectables most affected - DMPA-IM ($2.16 million) and DMPA-SC ($1.63 million). Indeed, the FP supply chain has been chronically understocked over the past few years. Government contribution towards FP procurement is notably low with only about 2% of 2024 FP procurement needs committed by government.	RHD needs to need to advocate directly to UNFPA and USAID for funding commitments for this year and advocate for a significant boost in government funding for FP procurement, in addition to the GOM's commitments already made under the UNFPA Country Compact.
Significant delays in approval of funding from donors and government for FP procurement.	Enhance communication from donors to MOH counterparts about funding cycles, so that they can incorporate them into their procurement planning process and streamline the procurement approval process. RHD should facilitate discussions with donors to ensure coordinated funding of FP commodities and flow of information on available funds, responsibilities and timelines. CPG to monitor and flag impact of delays and request expediting of funding approval by donors.

Gaps and recommendations

Gaps	Recommendations
Reconciliation of forecasts to arrive at a final forecast does not use a scientific approach or adherence to global practices in utilizing outputs from different forecasting methodologies.	Quantification team should consider using forecast reconciliation best practices such as averaging the forecasts, weighting the forecasts, or using the strongest forecast.

III. Product use

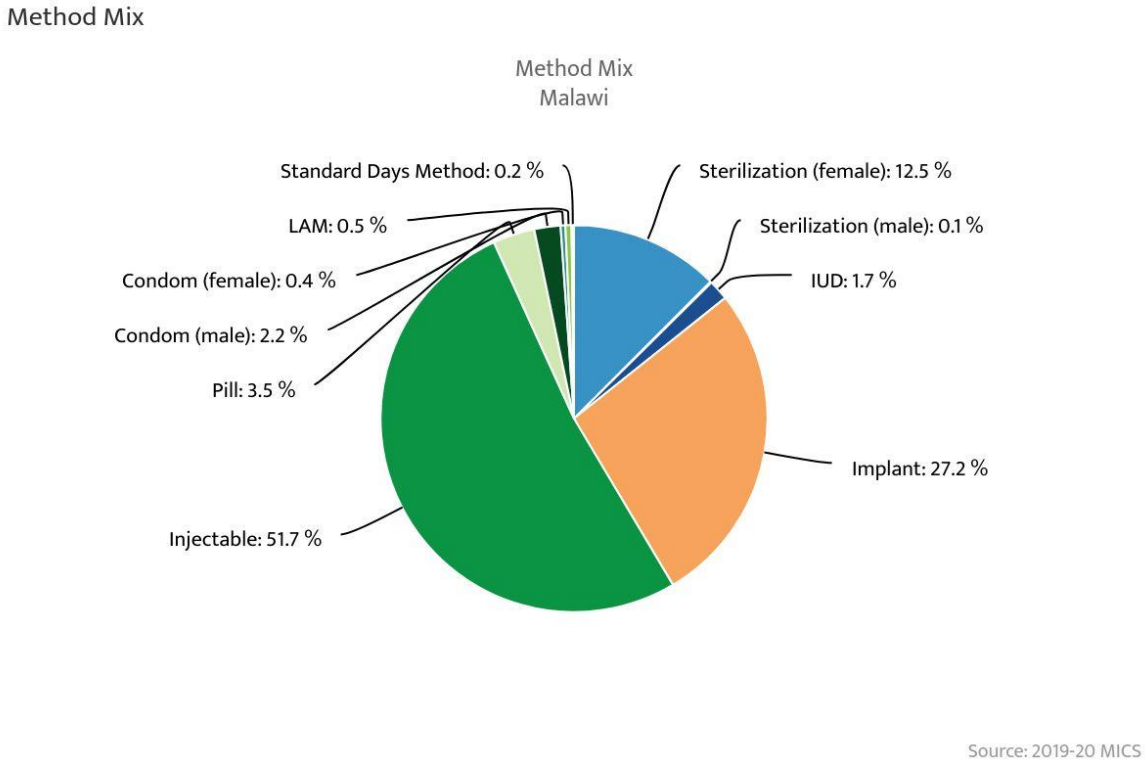
Product use

The primary goal of any logistics system is to meet the needs of its customers. In the public sector, FP clients are presented with a choice of ten FP methods–some offering multiple product options–allowing them the autonomy and choice to select products that align closely with their preferences, needs, and health conditions. According to Track20, 2.64 million women in Malawi were using a modern method of contraception in 2023, representing an mCPR of 48.6%. Injectable contraceptives, including both DMPA-IM and SC, are the most popular method by far at 51.7% of all women using a modern method of contraception in Malawi as seen in Figure 8.

FP access barriers: Despite the presence of a dedicated health education unit tasked with conducting behavior change communication campaigns, several barriers persist that impede access to FP services. These barriers include limited operating hours of FP clinics, unfavorable provider attitudes, insufficient provider skills to offer a comprehensive range of methods, erratic stock availability, and entrenched cultural or religious beliefs. It is recommended that districts and facility management ensure FP services are offered during normal hours of operation as provided in their service charters. Additionally, evidence suggests that including group counselling or training, while still maintaining opportunities for one-on-one interaction, can save time needed to offer FP services in high volume facilities.

Quality of care: Some clients perceive public health facilities as providing substandard FP services due to long queues, lack of privacy, and delays in starting to offer the services.

Figure 8. Modern Contraceptive Method Mix (all women)



Source: 2019-20 MICS

*Data Source: 2023 National Quantification of Health Commodities in Malawi

Self-injection with DMPA-SC

Self-injection scale-up: Malawi has been a front-runner country in the scale-up of DMPA-SC and self-injection, completing public-sector scale-up within two years. As of 2023, national scale-up in the public sector is considered complete, with 100 percent of eligible facilities having at least one provider trained to administer DMPA-SC and initiate self-injection. On average, 27% of DMPA-SC visits were for self-injection in 2023.

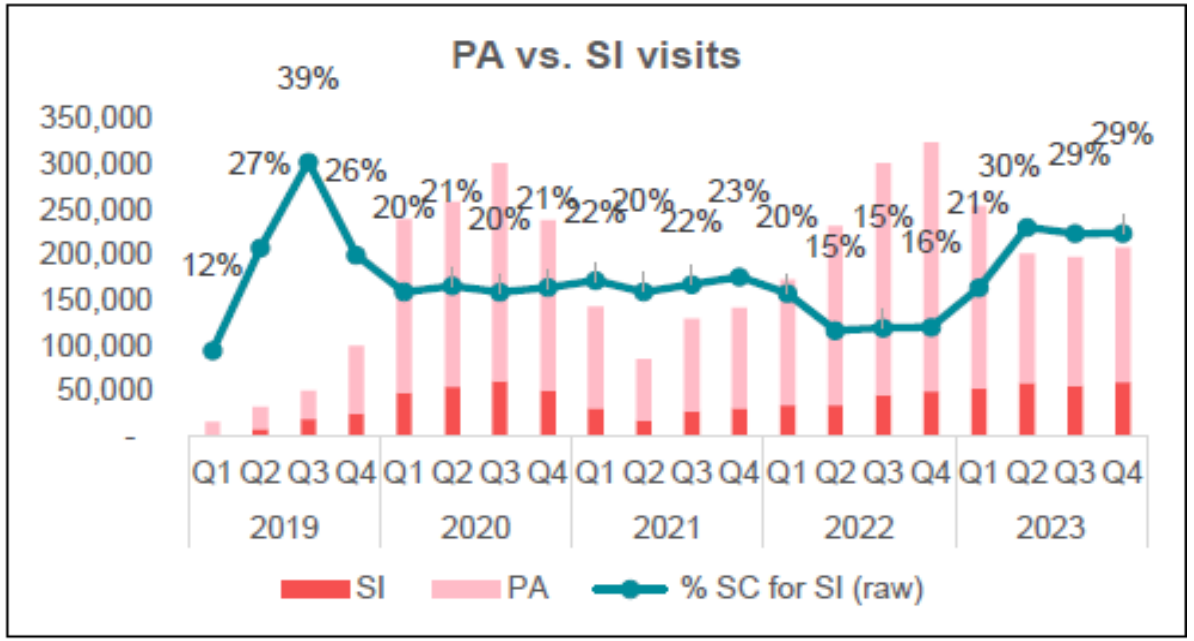
Drivers of uptake: Although factors such as training and stock availability have had an important impact on overall SC uptake, SI's share has been relatively resilient in Malawi. Apart from a period in 2022 where DMPA-IM scarcity caused a surge in SC provider-administered uptake (see Figure 9), SI share has been stable, and in fact grew in 2023 despite poor SC availability at national level.

Provider bias: Some providers exhibit a preference for administering DMPA-SC or DMPA-IM themselves, as it requires less time for client counseling compared to self-injection. However, as seen in Figure 9, SI uptake overall has been stable thanks to efforts made to support self injecting users.

Client self-injection package: In addition to the method and a job aid, self-injecting clients rely on a reinjection calendar to ensure timely administration of subsequent doses at home. However, across the facilities visited, there was a notable shortage of reinjection calendars, which is critical for reminding self-injecting clients of their dosage schedule.

Source: DMPA-SC Access Collaborative dashboard

Figure 9. Uptake of DMPA-SC (PA and SI)



Gaps and recommendations

Gaps	Recommendations
Uptake of self-injection mainly affected by: inconsistent availability of DMPA-SC, limiting quantities issued for SI (2023 stockout rates estimated at 23%); potential provider bias against SI due to the counselling time required per client; inconsistent availability of re-injection calendars.	Implementing partners should support printing and dissemination of reinjection calendars and job aids to support self injection. Scale up empathy-based training (e.g., Moment of Truth) and intensify mentorship on use of counselling tools to address provider bias, attitudes, and scale-up uptake of SI. Providers should be sensitized to incorporate efficient client training approaches such as group trainings, use of video demonstration, and job aids with local translation.
Lack of transparency and accountability regarding the usage of commodities at service delivery points.	Health facility pharmacists should introduce stock cards at service delivery points (DDAs) where commodities are kept before being issued to clients. Dispensed-to-user data should be collected and reported in eHIN and OpenLMIS. RHD/partners should develop and implement tools to track commodities issued and used at the community level, for partner outreach, youth friendly points, PAC and maternity Districts should strengthen their FP supply chain committee to supervise, conduct DQAs and mentor providers
Knowledge gaps and skills deficiencies among service providers affecting service provision.	MOH should increase the training of service providers to meet the demand for family planning services effectively, including long-term and permanent methods.

Gaps and recommendations

Gaps	Recommendations
Utilization of FP services are hindered by a complex interplay of factors, including societal stigma surrounding pre-marital FP access for adolescent girls, religious restrictions imposed by certain churches against contraceptive usage, the prevailing belief in some communities that children are a source of money and the considerable geographical distances to access some FP facilities.	The health education services division should intensify behavior change communication campaigns targeting myths and misconceptions, men, and cultural/religious beliefs that may act as barriers to FP service uptake. Partners need to conduct demand generation activities at facility and community level as a routine activity to support FP uptake.

IV. Inventory management

Inventory control system

An inventory control system informs the storekeeper when to order or issue, how much to order or issue, and how to maintain the appropriate stock level of all FP products to avoid shortages or oversupply. A well-functioning inventory control system requires clear guidance on the ordering system used and an understanding of the minimum and maximum stock levels at each level including the frequency at which SDP obtains its FP supplies.

SOPs and guidelines: The assessment team revealed that the updated *Malawi Health Commodities Logistics Management System Standard Operating Procedures Manual* was yet to be printed and disseminated and key informants at the district and facility levels were not aware of the review. All six visited facilities did not have a printed copy of the 2011 version at the pharmacy, indicating that insufficient advocacy and may be dissemination. The unavailability of this key SOP makes reinforcement to standard inventory control procedures difficult, as users do not have a quick reference for guidance. For example, all the pharmacists in charge of the six visited facilities were not aware of the proper timing for placing emergency orders. To standardize the process of emergency ordering, the updated version of the SOP needs to be finalized and disseminated, as it clearly outlines the process and timing of placing emergency orders.

Inventory control system: The inventory control system used is a forced ordering "informed push" approach in which facilities submit their logistics reports to the district every month for review and calculating the resupply quantities, but the central level through the RHD FP coordinator is the one who determines what to give to each facility. This is done by sharing a distribution list to facilities for review and amendments prior to issuing the FP consignment. However, the interviewed pharmacists in charge of the facilities visited claimed that once the distribution list is shared, lower levels cannot influence any change leading to receipts of quantities either in short or excess of their demands.

Figure 10. Kaweche HC storage room with enough space to keep stocks within min-max levels

Maximum-minimum stock levels: Maintaining the proper inventory levels is key to ensuring an uninterrupted supply of FP products to clients. According to the SOP manual, FP products should be kept between a maximum of 12 months of stock and a minimum of six months at the central level, and four to two months at the facility level. Five of the six facilities visited knew how to determine months of stock at the pharmacy store, hence aware if they were operating between max-min. The majority of the FP clinics order quantities small enough for a week or less.

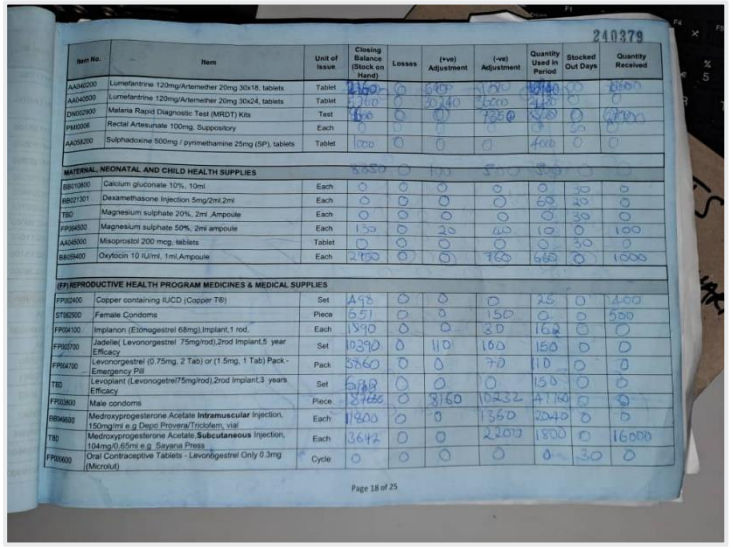
Ordering and redistributions

Ordering and redistributions are key components of any inventory management systems as they enable facilities to maintain appropriate stock levels through addition or removal of some quantities of FP products as needed.

Routine ordering: For FP products and other health commodities, the ordering process starts at the facility level, where LMIS monthly reports are submitted to the district. The LMIS report (Figure 11) captures the closing balance, losses, adjustments, consumption, stock out days, and the quantities received. While the district level calculates the order quantities for essential commodities, quantities needed by the facilities for FP products are calculated by the RHD. The RHD also prepares a distribution list and sends it back to facilities for review and adjustments followed by a bimonthly delivery. It was discovered that, even though distribution lists are shared for review and amendments, this is not reflected in their actual deliveries, leading to receipt of too much or less quantities as compared to what is needed by a facility. This may have caused shortages of DMPA-SC and IM at Blantyre district pharmacy and Ndirande HC, and expiries of Levoplant at Mpale DHO, Kaweche HC and Blantyre DHO in 2023. Although facilities are informed of when their consignments will be delivered, most facilities receive their consignments at a delay.

Emergency ordering. Health facilities are allowed to request FP products from districts or CMST under emergency cases when their stock falls below one month. Unfortunately, pharmacy staff are not aware of the emergency order point, and hence usually only place their orders when they are in critical shortages or stocked out, leading to disruption of services to clients. Also transport for emergency delivery is a challenge due to shortage of vehicles at the districts. Hence, most of the deliveries for FP products are supported by implementing partners or ambulance.

Figure 11. LMIS monthly report form



Redistribution: The district level is responsible for reviewing and assessing stocks from facilities once their reports are submitted to identify if they are overstocked or are running out of stock and to advise them to conduct inter-facility redistribution. In cases when enough stocks are available at the district store redistribution can be made. The main challenge of redistribution is the availability of transport for timely delivery, as most transfers are made during routine supportive supervision or are supported by partners. Also, the dependency on district staff to identify overstocks and understocks from facilities due to limited visibility of stock data between facilities by staff at SDPs is a major challenge. In most cases, this delays the decision to initiate redistributions, leading to stock outs which could otherwise be prevented.

Gaps and recommendations

Gaps	Recommendations
Push system which results in supply imbalances (overstock/understock) due to factors such as poor data quality, challenges with feedback on the distribution lists, lack of understanding of emergency order procedures among some SDP staff, and interrupted availability at central level.	MOH should transition from a push system to a pull system for FP commodities, enabling ordering based on actual consumption at the facility level. A pull system would improve accountability and ensure orders based on need. A phased implementation approach should be opted (pilot in selected facilities) for learning before scaling it up to country.
In facilities without eHIN, there is inadequate traceability at the user facility level. Once the product is issued from the pharmacy to the clinic or HSA, there is no tracking mechanism.	MOH should ensure availability of stock cards and other inventory management forms/ tools at clinics, Health Surveillance Assistants (HSA) facilities, and all other relevant facilities for efficient inventory management and reverse logistics after campaigns. Digitizing record management at SDP to track dispensed to user data in real time to improve traceability of stocks. Fast tracking the roll out of eHIN could be ideal for the time being.
Overstocking, sometimes large quantities are pushed during partner campaigns, such as with Levoplant, leading to storage space constraints, stock imbalances among facilities and expiries.	MOH to establish a proper mechanism for the redistribution of overstocked commodities to minimize stock imbalances, maximize the available storage space and prevent expiries.
Non-standardized tools for documenting and reporting, such as the use of hard copies/ covers to document and report expired FP commodities	MOH to develop standardized reporting tools for all service provision activities to improve data capture and streamline reporting processes for FP commodities. The developed tools should comprehensively distributed down to each facility.
Frequent stockouts of FP commodities in the visited health facilities were particularly notable in 2023, with stock outs lasting up to six months for items like DMPA-IM, DMPA-SC, and Implanon	Districts should establish a proper mechanism for the coordination redistribution of overstocked commodities to prevent stock outs and expiries. Also, strengthening district FP supply chain committees to ensure follow up on missed facilities on distribution. MOH/donors should address the funding gap for procurement of FP commodities to address stock outs resulted from national stock outs.
Expiries of slow-moving commodities like IUDs	Districts should establish a proper mechanism for the redistribution of overstocked commodities to prevent overstocks and expiries. MOH should establish pull system to order only what can be consumed by the facility. RHD should use consumption data to improve the accuracy of their forecasts and procurement, and should dedicate funding to districts for redistribution.

V. Logistics management information system

Logistics management information systems

Considered to be the engine of the logistics cycle, a functional LMIS provides essential data about commodities useful for resupplying the SDPs and for monitoring and improving supply chain performance. The assessment team met with stakeholders at six service delivery points (two facilities in each of the three regions visited) to observe the information systems used for management of health commodities. It was observed that a combination of paper-based and web-based tools are used for data management and reporting.

Dispensed-to-user data: Dispensed-to-user (consumption) data are considered to be the "gold standard" for the data needed to manage products, all the way from management of products in a facility and re-supply at the facility level, up to quantification at the national level. In Malawi, service providers track consumption data in a register (Figure 12), but this data stays with the provider and does not make its way into the monthly LMIS reports that the facilities submit.

Logistics data record keeping: At the facility level, within the facility pharmacy, staff use standardized stock cards (Figure 13) to record logistics transactions. The stock card contains the logistics data which is recommended to be collected: quantity received, quantity issued, losses, positive and negative adjustments, and quantity on hand. There is also a column for the date, the transaction, reference, and remarks. Some stock managers also keep a separate notebook to record stock losses (expiries and damages). Although the service providers do hold small quantities of stock, they do not typically maintain any stockkeeping records.

The e-HIN system has also been introduced in FP clinics at the District level and Health center level in some districts. This is a digital health initiative primarily deployed to improve health supply chain visibility at all points of health service delivery in the country and improve data quality and management.

Figure 12. Page from an FP register

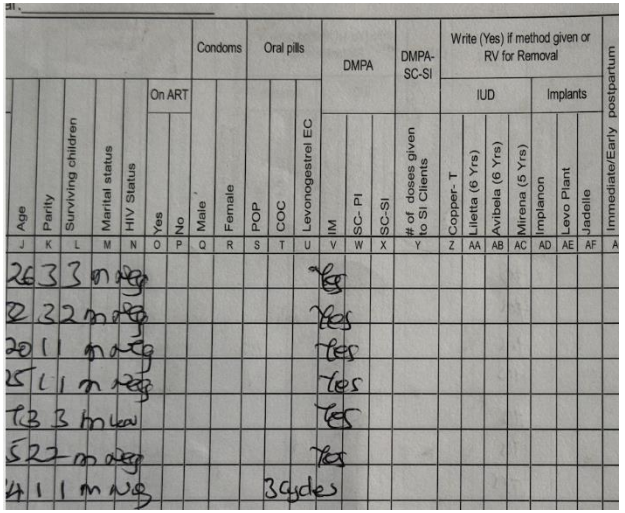
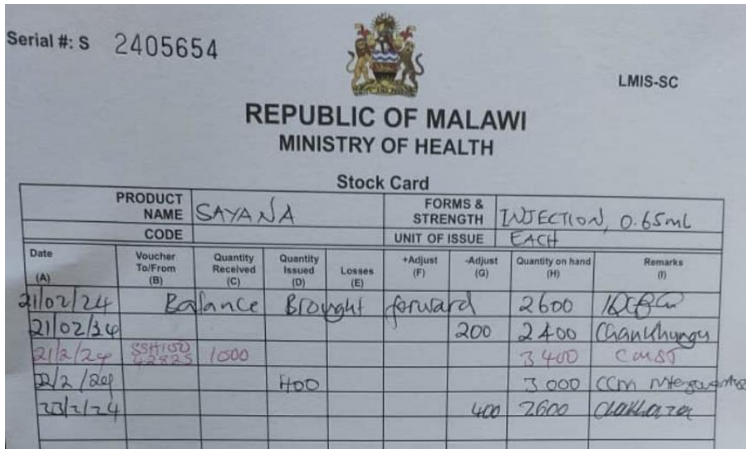


Figure 13. Example stock card



Logistics management information systems

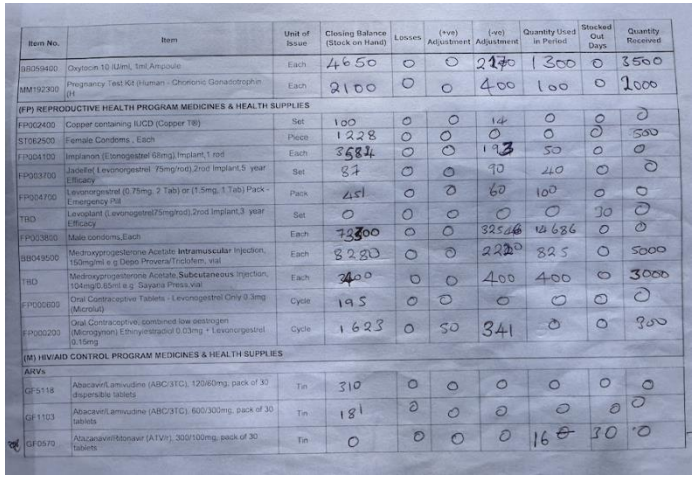
Logistics data reporting: Logistics data are reported on a paper-based monthly report format (Figure 14) and from there into an OpenLMIS-based computer program. Facilities that have internet connectivity can enter their data directly into the online system; those facilities that do not have internet connectivity can take their reports to a nearby facility or their district for data entry. The program has the capability of doing offline data entry for instances where the internet connection is spotty. Logistics data reported include closing balance (stock on hand), losses, positive and negative adjustments, quantity used during the period, days out of stock, and quantity received. As with the stock cards, service providers do not complete or submit a monthly report; therefore, what the pharmacy reports as "quantity used during the period" is actually the quantities that were issued to the service provider.

Calculation of resupply quantities: Resupply is done through a "push" system, whereby OpenLMIS calculates the resupply quantity needed, in theory based on recent consumption, current stock on hand at the facility, and the maximum desired stock level (in months of stock) for the product. District staff are informed of the quantities to be resupplied to the facilities and have the option to amend the quantities based on their knowledge of the local situation and then inform the warehouse staff of the amended quantities. It was unclear how often the quantities calculated by OpenLMIS are overwritten or amended by central or district staff.

Supervision: Supervision is conducted using checklists, and some supply chain monitoring is included among the supervision tasks.

Supply chain monitoring: Data are used to monitor a variety of supply chain indicators at the central/regional levels, at the district level, and at the facility level. It was reported that "the system" can notify of overstocks, understocks and stockouts, although this was not observed by the assessment team.

Figure 14. Page from a monthly report



Item No.	Item	Unit of Issue	Closing Balance (Stock on Hand)	Losses	(+ve) Adjustment	(-ve) Adjustment	Quantity Used in Period	Stocked Out Days	Quantity Received
08059400	Oxytocin 10 IU/ml, 1ml Ampoule	Each	4650	0	0	270	1300	0	3500
MM192300	Pregnancy Test Kit (Human – Chorionic Gonadotrophin (H	Each	2100	0	0	400	100	0	1000
(FP) REPRODUCTIVE HEALTH PROGRAM MEDICINES & HEALTH SUPPLIES									
FP002400	Copper containing IUCD (Copper T 380)	Set	100	0	0	14	0	0	0
ST062500	Female Condoms , Each	Piece	1228	0	0	0	0	0	500
FP004100	Implanon (Etonogestrel 68mg) Implant,1 rod	Each	3684	0	0	193	50	0	0
FP003700	Jadelle (Levonorgestrel 75mg/rod),2rod Implant,5 year Efficacy	Set	87	0	0	90	40	0	0
FP004700	Levonorgestrel (0.75mg, 2 Tab) or (1.5mg, 1 Tab) Pack - Emergency Pill	Pack	451	0	0	60	100	0	0
TBD	Levoplant (Levonogestrel75mg/rod),2rod Implant,3 year Efficacy	Set	0	0	0	0	0	30	0
FP003800	Male condoms,Each	Each	73300	0	0	32546	12686	0	0
BB049500	Medroxyprogesterone Acetate Intramuscular Injection, 150mg/ml e g Depo Provera/Triclofem, vial	Each	8280	0	0	2220	825	0	5000
TBD	Medroxyprogesterone Acetate Subcutaneous Injection, 104mg/0.65ml e g Sayana Press,Vial	Each	3400	0	0	400	400	0	3000
FP006000	Oral Contraceptive Tablets - Levonogestrel Only 0.3mg (Microlut)	Cycle	195	0	0	0	0	0	0
FP002200	Oral Contraceptive, combined low oestrogen (Microgynon) Ethinylestradiol 0.03mg + Levonorgestrel (0.15mg	Cycle	1623	0	50	341	0	0	900
(M) HIV/AID CONTROL PROGRAM MEDICINES & HEALTH SUPPLIES									
ARVs									
GF5118	Abacavir/Lamivudine (ABC/3TC), 120/60mg, pack of 30 dispersible tablets	Tin	310	0	0	0	0	0	0
GF1103	Abacavir/Lamivudine (ABC/3TC), 600/300mg, pack of 30 tablets	Tin	181	0	0	0	0	0	0
GF0579	Atazanavir/ritonavir (ATV/r), 300/100mg, pack of 30 tablets	Tin	0	0	0	0	16	30	0

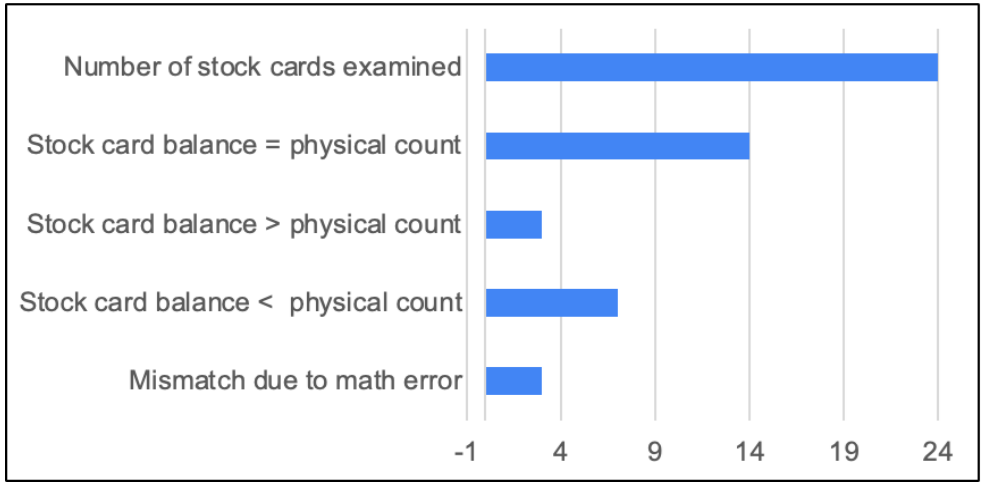
Data quality

Having access to and using good quality and timely data to make wise resupply decisions and monitoring the performance of the supply chain are essential to maintaining an efficient and effective supply chain.

Focus group participants and individual interviewees acknowledged that data quality problems do exist. Problems can include missing data (reports not submitted or entered into the electronic system), late data (reports submitted after the reporting deadline) and inaccurate data (mistakes made in the data being reported). And based on data quality checks conducted during the site visits, the teams were able to confirm that data quality can be an issue, while some aspects related to data quality were not an issue.

As shown in Figure 15, an examination of the stock cards for the four indicator products revealed that of 24 stock cards examined, only 14 had a recorded stock on hand balance that matched the physical count. Of the ten whose recorded balance did not match the physical count, three had a balance that exceeded the physical count and seven had a balance that was less than the physical count. Additionally, three of the incorrectly recorded balances were a result of math errors on the stock card: if the math error had not been made, the recorded balance would have matched the physical count. At the same time, it was noted that physical inventories were consistently done over time.

Figure 15. Stock card data quality



Through an examination of recent reports, it was found that all 24 product entries examined had a reported balance that matched the balance recorded on the stock card. So, while the stock on hand balances being reported do seem to accurately reflect the stock card balance, there can be errors in the stock card balance itself, which would mean that the true stock on hand balance is not being reported. (This would then likely skew the calculation of the resupply quantity needed.)

Data visibility and use

A strong supply chain requires good data visibility, based on routinely and accurately updated records and timely reporting, so that managers and supervisors throughout the system can use that data to make informed decisions. For managers and supervisors to have data available when and where they need it for timely decision making, warehouses and SDPs need to report on time and with accurate data.

The electronic data management system allows data to be aggregated, viewed by, and shared among various supply chain personnel in the system. Outside of the electronic system, data are also shared among ministry staff, CMST, and various partners. The data coming up through the system are used for logistics system performance monitoring and data-dependent tasks. Indicators such as stock levels and reporting rates are tracked, although reporting rates are reportedly not tracked regularly. The data is also used throughout the logistics cycle, including for forecasting, procurement, transport management, inventory management (including resupply), and scheduling supervisory visits. As mentioned earlier, access to dispensed-to-user data would be a great benefit to many aspects of supply chain management in Malawi.

The assessment team had the opportunity to present the preliminary assessment results for validation at two technical working group meetings during which supply chain was being discussed. Through those meetings, it was clear that supply chain managers, program managers, partners and others are using logistics data to manage their products and their programs. Various working group members were making program-specific presentations using a wide variety of logistics data to describe commodity status and to track and report on a number of supply chain performance indicators.

Gaps and recommendations

Gaps	Recommendations
Dispensed-to-user and dispenser-level stock on hand (SOH) data are not reported up the system; issues data are used for resupply and other supply chain decisions and may result in inadequate resupply or oversupply as well as challenges when doing national-level quantification.	MOH to expand reporting to capture dispensed-to-user data and dispenser-level stock on hand data. There are several options, depending on what is most feasible to implement: A. Adapt eHIN to capture dispensed to user and data for FP (and possibly other) products; service providers will submit dispensed to user data weekly/monthly and it will go directly into eHIN. (Stock on hand at the dispensing station could also be submitted.) B. Service providers submit written reports to the facility pharmacist, noting dispensed to user quantities during the month (possibly along with stock on hand at the dispensing station) to improve accountability. C. Service providers directly enter “dispensed to user” data onto the monthly report (in place of the pharmacist entering quantities issued to the service providers). This could work well in a facility with only one service provider; if there is more than one service provider, they would have to sit together and sum their totals, which may be an additional challenge. D. Have the pharmacist issue smaller quantities to the service providers, perhaps weekly, and based strictly on the quantities that they have dispensed to users over the last period from aggregated monthly FP reports. In this way, the quantities “issued” would more closely reflect “actual consumption” at the facility, and provide a better data point than “issues” made to the service providers without any link to the actual quantities that they dispense.
eHIN is not fully rolled out to all facilities, currently at only ~30% of SDPs.	Expand eHIN to all SDPs and link this system to OpenLMIS to inform resupply of facilities.

Gaps and recommendations cont.

Gaps	Recommendations
Lack of interoperability between Open LMIS, eHIN, and DHIS-2 results in gaps in available data in each system and inability to easily compare and align services data and logistics data.	MOH to explore the possibility of establishing linkages between OpenLMIS, EHIN and DHIS-2; MOH to intensify DQAs to improve data quality which circles back to improving quantification and forecasting.
Poor data quality due to inaccurate, incomplete, non-reporting, and delayed data; limited validation of reported data.	MOH to reinforce use of electronic reporting system: continue expanding the system to additional facilities, re-educate system users on offline data entry capabilities and upload processes, establish/reinforce deadlines for requesting data bundles, closer monitoring of report submissions with reminders for non-reporting sites. Hard-to-reach facilities that have electricity and internet MOH/LMU/Districts/IPs to strengthen the monitoring and evaluation system of LMIS by harmonizing indicators related to data quality (e.g., HMIS and LMIS), timelines, and use and regularly evaluate the effectiveness of LMIS interventions; better monitor supply chain data quality through ongoing data quality checks at time of supervision, spot checks of reported data. MOH/LMU/Districts could establish a recognition system for facilities that report on time, submit complete reports, have no data reporting errors, etc. Work with supply chain partners to improve trained HW capacity around supply chain and reporting, i.e., capacity building and mentorship.
Late or non-reporting of data due to challenges using the electronic data reporting system: no internet or poor internet connectivity, lack of data bundles, failure to submit reports.	

VI. Transport and distribution

Transport and distribution

The in-country distribution system is direct delivery from the CMST/regional stores to the districts and health facilities.

Routine distribution: Transportation of FP from the regional central medical stores to district pharmacies and facilities is done by the Cargo management Logistics (CML) delivery trucks/ vans guided by the distribution list provided by RHD. One of the observed challenges leading to shortage/ stock outs at facility level, which leads to the disruption of FP services by limiting the number of choices to the clients, are delays in sharing of the distribution list from RHD. Order processing begins on the 10th of each month, and the distribution schedule is shared with health facilities. Delays in the delivery of family planning products often lead to adjustments in the distribution plan, with affected facilities being notified. Such delays result in repetitive deliveries, which incur additional costs that CMST cannot recover. A good example was a delay by one month of receiving the recent deliveries which were supposed to be completed by January 2024. Instead, it was delayed to February 2024. This might have caused the observed stock out of Jadelle implants at Kaweche HC and Dowa district hospital as the product was available at central level.

Emergency distribution: Emergency distributions are usually coordinated by districts, and deliveries are made using district or partners vehicles. The ordering process is initiated by the facilities when they remain with few days stocks or running out of stock and this poses a challenge to the districts/ central stores to deliver the consignment within the limited time. In most cases emergency deliveries are not done on time due to inadequate vehicles and inconsistency availability of the same from implementing partners.

CMST delivery truck

Redistributions: The process is in most cases initiated by the pharmacist at the district level after receipt and review of monthly logistics reports from facilities. Facilities with shortages and overstocks are then identified. The stock imbalances are shared to facilities to prepare their requests. Deliveries are made by district vehicles or partners' vehicles and sometimes ambulances. Inconsistent availability of vehicles for redistribution makes the process difficult, leading to a disruption of services in outstocked facilities and a risk of expiries in overstocked facilities. Also, the overstocks consumes storage spaces limiting the implementation of good storage practices.

Gaps and recommendations

Gaps	Recommendations
Transportation challenges affecting routine distributions, emergency deliveries, and redistributions: Central level: Inadequate vehicles to support timely routine distribution to facilities District level: Inadequate vehicles, fuel, spare parts, and poorly maintained vehicles to support emergency delivery and redistributions	Donors should review the contract with 3PL to ensure that enough fleet is dedicated for distribution. The MOH/ districts should provide enough funding for transportation/distribution support such as fuel, maintenance, and reinforce vehicle inspections before loading to ensure that vehicles making deliveries are in good shape and lobby recapitalization to buy new fleet.
Frequent changes in distribution schedules and non-adherence to schedules, leading to delays in delivery of products.	RHD should share in advance and improve adherence to distribution schedules, minimize changes, and when changes are made, they should be communicated in advance.
Challenges with the reverse logistics of overstocked, expired and recalled FP products from facilities to the district stores,	Districts should strengthen redistribution of overstocked commodities between facilities and reverse logistics of overstock, expired and/ or recalled FP products from the facilities to the district stores.
Repetitive/multiple deliveries made due to parallel distributions for FP products and essential commodities.	MOH should integrate public health product delivery in a manner that one delivery will be made per facility per period. This would also help with adherence to delivery schedules and reduce transportation costs and resources needed.
CMST does not have dedicated funding for distribution of FP commodities.	MOH to lobby for funding for distribution of FP commodities.
RHD is using parallel supply chain systems from multiple donors by way of integration to manage the distribution together with the main supply chain (CMST), which sometimes delays the processing of orders leading to supply chain disruptions.	MOH/RHD should integrate distribution for FP products with other health programs and essential medicines for more efficient and cost-effective use of the available vehicle fleet.

VII. Storage

Storage guidelines and storage infrastructure

Products are stored at every facility in the pipeline to ensure physical integrity and safety, and packaged until they are dispensed to clients. The team gathered information about central and regional stores through FGD and the sampled district and facility stores by in-person visits.

SOPs and guidelines: The assessment team revealed that the updated *Malawi Health Commodities Logistics Management System Standard Operating Procedure Manual* was available though the majority of key informants at the district, and facility levels were not aware of its existence. All the six visited facilities did not have the printed copy available at the pharmacy indicating that insufficient dissemination and distribution of the updated copy was done after the review was completed in July 2023. The unavailability of this key SOP might compromise the adherence to good storage practices.

Storage space: Respondents suggested that the storage space at the CMST and regional warehouses are adequate to keep the usable stock, but the accumulation of unusable stock due to expiries and damages restricts storage. Plans are in progress to construct a bigger warehouse at CMST to maximize the storage space. At districts and HC, SIABs are used for storage (Figure 16). While storage space at the health centers equipped with SIABs seems to be adequate, a different case is for DHO e.g., Maple DHO pharmacy and Mponela RH stores were full, making it difficult to do routine cleaning and arrangement. The situation would be even worse when the facility are fully stocked after receipt of their deliveries.

Figure 16. Storage in a box (SIAB) at Mponela RH

SIABs status: These facility types have temporarily improved the storage in most facilities. A common infrastructure challenge currently is the leaking floor especially during rain, and unfortunately maintenance is still under the contractor limiting facilities/partners to timely refurbish and maintain the facilities. Also, materials used to construct the SIABs are not available in the Malawi market; ordering them from South Africa has a significant lead time thus affecting the timely maintenance of the facilities.

Store management

Generally the stores and warehouses at all levels are handled by following the available guidelines despite the fact that copies of the manuals were not found in facilities visited.

Handling of wastages: Once FP products expires/ become damaged they should be removed and separated from usable stock, removed from stock cards and recorded on an improvised expired pharmaceutical product list (see Figure 17). Observation at facility pharmacies indicated that expired products were separated from the usable stock, but not recorded on the list except, Kaweche HC who recorded expired products on an improvised sheet of paper. Inadequate documentation could render the valuation and disposal process difficult hence accumulation of wastages and eventually occupying the space. Also, a requirement to use pharma grade incineration as a recommended waste disposal method may lead to waste accumulation as it is available in few facilities. CMST's mandate does not include waste management at the health facility level, hence there are no reverse logistics for expired products. CMST provides reverse logistics through third-party logistics (3PL) for recalls, oversupply, damages, and defects, excluding expired medicines.

Good storage practices: The central and regional stores conducts biannual physical inventory whereas district and HC do it on a monthly basis and record on the stock cards as observed on the day of visiting. Other good storage practices such as cleanliness, securing store rooms, product arrangement and labelling, and fire safety equipments were available/ implemented. Common challenges included unavailability of alternative power source when there are power cuts, unavailability of ACs and maintenance of SIABs, which is very challenging as spare materials are not available in the Malawi market, hence should be imported from South Africa which is very expensive.

Figure 17. Improvised expired products list at Kaweche HC

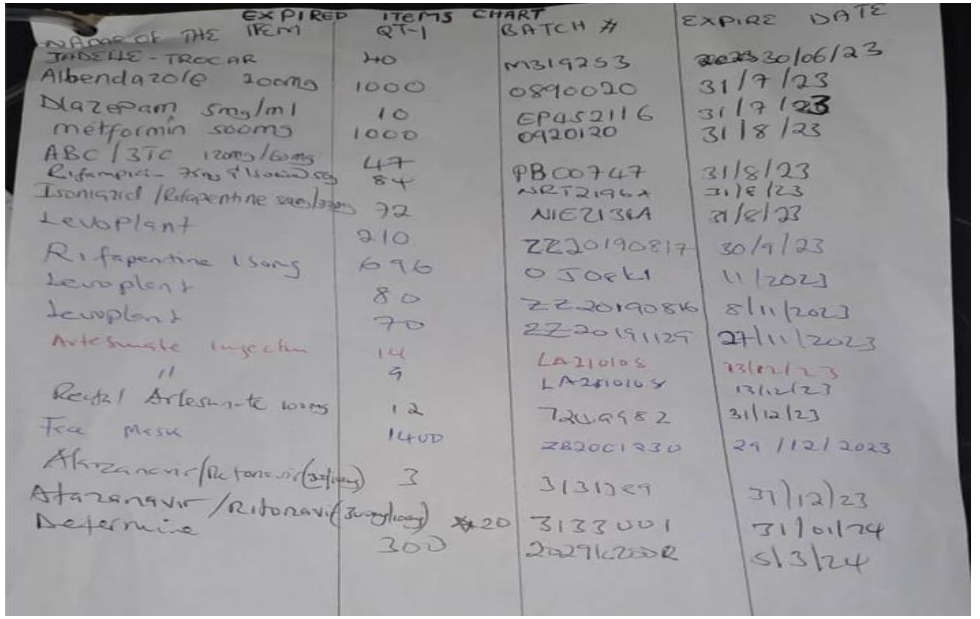


Figure 18. Interior, Kaweche HC SIAB

Gaps and recommendations

Gaps	Recommendation
Accumulation of expired stocks at all levels, consuming the storage space which should be used by usable stocks due to delays in disposal procedures (long approval processes) and lack of funding to board off expiries.	The RHD should use the actual facility consumption data among other data available for forecasting, quantification, and management of supply plans to minimize overstocks and prevent expiries. A yearly disposal mechanism of expired drugs should be implemented to prevent accumulation of expired medicines which consume the storage space.
Lack of capacity for district councils and facilities to maintain SIABs due to higher maintenance costs.	The central level to continue supporting maintenance of the SIABs and consider constructing permanent structures.
The Government not constructing permanent structures to replace the SIABs as the construction of SIABs in DHOs and HC was a temporary measure to address the storage space challenge. Inadequate storage spaces, notably and SDP level.	The Government should lobby/mobilize resources for improvement and maintenance of the existing SIABs and other permanent storage structures by installing ACs, maintenance of the available ACs, and shelving and flooring. Constructing/expansion of stores at SDPs to support implementation of good storage practices.
Inadequate number of staff with the requisite qualifications at the central warehouses and some SDPs to manage inventory by following good storage practices.	MOH should recruit additional staff with the required qualifications to align with their roles and responsibility and equip them with knowledge and skills to manage inventories through training and OJT.

VIII. Organization and staffing

Organization structure

A well-functioning supply chain requires the support of a well-coordinated organizational structure supported by standardized high-level policies and guidelines. These people, structures and guidance, the "organization and staffing" of the supply chain, set the context for the work that people will do to ensure product availability and essentially tell people (and units, departments) which supply chain functions they are responsible for and generally the context within which they will work.

Through the focus group discussions and key informant interviews, the assessment team gathered information to determine the organizational structure and understand the various supply chain functions managed.

It was observed that while there is currently no dedicated logistics management unit, all logistics functions are assured by various actors, with Health Technical Support Services (HTSS) taking the lead for some functions but contributing to most of the others. The Ministry of Health has recognized the necessity for a Logistics Management Unit (LMU). To address this, they implemented a Project Management Office in 2023 for a one-year period to lay the groundwork for the LMU's establishment. The Ministry has developed a comprehensive blueprint for the LMU and is currently mobilizing resources to achieve its full operationalization. Other actors who have significant responsibility for supply chain functions include partners seconded to HTSS, RHD and CMST. CMST itself is primarily responsible for storing and transporting products from central/regional stores out to the facilities. Discussions also highlighted the fact that there is a high level of coordination among the various supply chain actors, with regular coordination meetings, joint work plans, written communications and department meetings among the collaborations being implemented

In terms of staff numbers, HTSS currently has approximately 16 staff who are involved in some aspects of supply chain while CMST has about 80 staff among its facilities. The position of Deputy Director for Pharmaceutical Services was unfilled as at the time of the assessment.

Organization structure

Central: HTSS serves a key role in overseeing or participating in various supply chain functions. For instance, HTSS is responsible for managing the logistics management information system and implementing the forecasting process. HTSS also serves as the secretariat for the NMC, which is involved in product selection. HTSS also takes an active role, along with others such as CMST and development partners, in the processes for procurement, supervision and staff development. CMST is primarily responsible for procurement, warehousing and distribution, through a central warehouse and two regional warehouses, which are in essences branches of the central warehouse (and not a discrete level in the supply chain). Some products are also stored and distributed by third party logistics providers (3PLs).

LMU: As mentioned earlier, there is currently no dedicated logistics management unit. However, once the LMU is established, as planned by the MOH and LMU responsibilities are clearly defined, the overall organogram of the MOH, HTSS, LMU, etc. will need to be updated to clearly outline the relationships between and among the various entities, in particular who is primarily responsible for what/who has oversight over whom/what, who needs to be consulted on what issues, etc. Likely, the MOH and HTSS will continue to provide leadership in the areas of policy and context, while LMU will be more concerned with operationalizing and ongoing monitoring of supply chain functions and performance indicators (possibly including those for 3PLs). CMST would likely remain as "boots on the ground" managing storage and distribution but with some oversight by LMU. There may also be supply chain "liaisons" or others within specific programs whose role will be to interact regularly with and consult LMU on supply chain-related issues and decision.

District: District Health Officers oversee operations at the district level and would have oversight of pharmacy/supply chain operations. District staff are also meant to review quantities to be issued and provide input. It was also mentioned that at some districts there is a district family planning supply chain committee that monitors supply chain functions; such a committee would be of use in every district.

Service Delivery Points: The staffing structure at the SDPs varies depending on the size of the health facility and the type of personnel that are available. Some facilities may have a pharmacist/in-charge, a pharmacy technician or a pharmacy assistant, while others rely on nurses or other staff to manage the products as well as serve clients. Some facilities also have students who assist with supply chain functions.

Organization structure

An example of a data use approach is the Information Mobilized for Performance Analysis and Continuous Transformation (IMPACT) Team intervention that has been implemented by JSI and inSupply in several countries. This could be analogous to the district family planning supply chain committees that exist in some districts in Malawi.

As seen in Figure 19, no single component by itself but rather a combination of data, people, processes, and technology, under the leadership of governments is needed to institute a change in data use culture that leads to sustained improvements in supply chain processes and outcomes.

In this model, the teams meet regularly (monthly, bi-monthly, or quarterly) to review supply chain operations and assess specific supply chain performance indicators. Low performance leads to a root cause analysis to determine the real cause of the problem and then design and implement an intervention or interventions to address the challenge.

Figure 19. IMPACT Team Theory of change*

*Data source: https://doi.org/10.9745/GHSP-D-21-00345

Enabling policies

Another element of the organization and staffing structure are the policies that exist and should provide and promote a context for supply operations that support service provision, in this case for the provision of FP/RH products to support family planning and reproductive health services. Policies should exist that 1.) facilitate the provision of services and 2.) provide general guidance to facilitate supply chain operations in support of those services.

Focus group members identified a number of existing policy documents (Figure 20) that support the purposes and goals mentioned above. Among these documents are:

- a sexual and reproductive health rights policy under which family planning is a focus, it includes a youth-friendly strategy, and there is a strategic objective on supply chain
- Gender Equality Act section 19
- HSSP III
- Malawi 2063, MIP 1

While the documents noted above do provide a positive context for FP/RH, and might touch on supply chain issues, of most concern for the supply chain operational aspects is the *Malawi National Supply Chain Transformation Plan (MNSCTP 2023-2030),* shown on Figure 21. Based on a "maturity model" analysis, this document provides an excellent roadmap for improving supply chain operations including all functions of the supply chain. The plan identifies goals, objectives and activities for each supply chain function, and includes a detailed implementation plan. The plan also focuses on specific supply chain performance indicators that will be used to assess the improvements to be made.

Figure 20. RH/FP Policy Documents

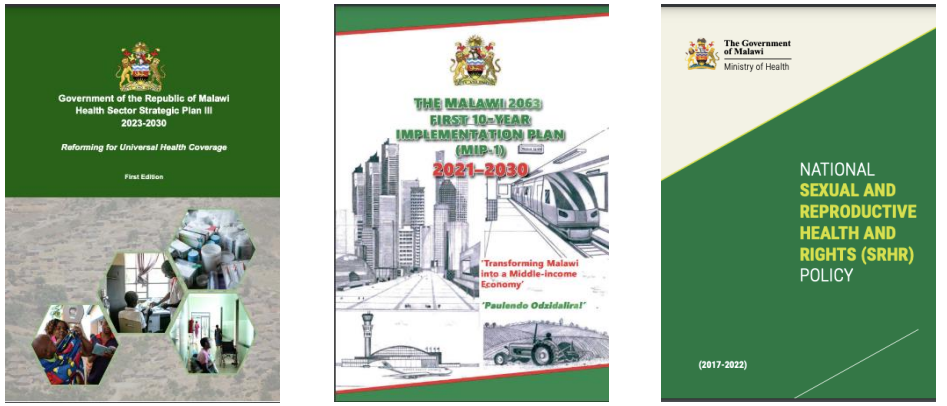
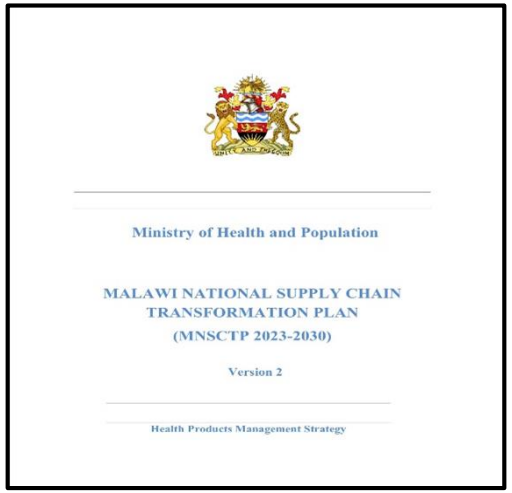


Figure 21. MNSCTP 2023–2030



Staffing

Managing the overall context of organization and staffing also includes being able to ensure that there are adequate personnel in the system to manage all supply chain functions throughout the logistics cycle and that staff are generally aware of which supply chain functions they are responsible for. For this, we can consider hiring of staff and job descriptions.

Hiring of Staff/Staffing of Logistics Positions: While the MOH and HTSS are a part of the recruitment process for logistics personnel, there are others who have a more prominent role in hiring. For instance, it was reported that Health Service Commission does hiring of central level staff, Local Government Service Commission handles for the district and CMST is responsible for hiring its own staff.

Job Descriptions: While there are some indications of job responsibilities found in the SOP manual, and interviewed staff did mention that some formal job descriptions related to supply operations do exist, it was unclear the extent to which those job descriptions go: do they exist for all job titles that have supply chain responsibilities, do they cover all supply chain-related job duties, and so on. While the SOP manual may tell people how to do a job or task, the job descriptions will clearly identify who specifically is responsible for each of the various supply chain functions at each entity or facility (committee members, logistics management unit staff, warehouse staff, district staff, service delivery point staff). The lack of complete and comprehensive job aids can result in some tasks not being adequately covered (each person thinks the other is the person responsible).

Gaps and recommendations

Gaps	Recommendations
National-level LMU is not fully established as a functioning entity.	It is essential to fast-track the establishment of the LMU with clearly defined responsibilities to coordinate and oversee all supply chain functions within the MOH. LMU must be staffed appropriately to manage the national commodity security and supply chain logistics.
Some, but likely not all, job positions that have supply chain duties have documented job descriptions describing those duties in detail.	The MOH,HTSS, and LMU to conduct an audit of job descriptions for all staff who are intended to have supply chain responsibilities. Update or revise job descriptions to ensure that all relevant supply chain functions are accounted for at each facility where supply chain tasks occur, and for each person having supply chain management responsibilities.
Inadequate number of staff with the requisite qualifications at the central warehouses and some SDPs to manage inventory by following good storage practices.	Recommend on-the-job trainings, mentorship, and supervision to improve capacity of existing staff. However, a key part of the issue here is also the lack of FTEs at the facility level to cover all roles and responsibilities, with a knock-on impact on supply chain and logistics management. Increased funding is needed to fully staff public health facilities so that sufficient capacity is available for all roles and responsibilities to be adequately covered.
District family planning supply chain committees are found in some but not all districts.	All districts should establish family planning supply chain committees and regularly conduct committee meetings. These could even include products for other programs.
Not a gap, per se, but as the new supply chain strategic plan is being implemented, there will need to be regular reviews of the new (2023) SOP.	As the strategic plan is being implemented, the MOH, HTSS, and LMU to monitor supply chain procedures and update SOPs to account for any changes in those SOPs based on what is being implemented under the strategic plan.

IX. Organizational support for logistics

Supply chain policies, guidelines, and SOPs

To manage supply chain activities well, staff need to have a clear understanding of their roles and responsibilities, knowledge, skills, and tools to do their jobs. A strong organizational structure, the "organization and staffing" seen earlier, cannot improve supply chain performance alone. While organization and staffing ensures the overall context for supply operations, organization support for logistics covers the guidance, tools, and support that personnel receive in order to be able to do their jobs effectively. Thus, the high-level guidance mentioned earlier needs to be complemented by "on the ground" standard operating procedures and other tools that are well documented, disseminated, and implemented by all users. SOPs provide guidance to users and aim to build standardized and well coordinated supply chain operations across levels of the supply chain and across geographic regions. In addition, users must receive training, continuing education, and job support to ensure they are in compliance and standards are maintained. During the group discussions, participants mentioned that guidelines, SOPs and other tools exist and should be available to all health facilities. However, during the facility visits it was observed that most facilities were not in possession of the manuals. Central-level staff did note that a new 2023 version of the SOP is in the process of being finalized and should be available for distribution in the near future.

SOPs and user manuals: One facility was able to produce an electronic version of a supply chain management SOP from 2003. In its favor, that SOP manual does include well documented procedures for all supply chain tasks. There was also mention of a user manual for OpenLMIS/eHIN, although those manuals were not in evidence during the visits. The assessment team was encouraged to learn that a new 2023 SOP manual is currently being finalized. A quick examination of that manual showed that, as with the previous 2003 version, it contains well documented and detailed procedures, job aids, and related information for all aspects of supply chain management. Once printed and distributed, it will serve as a valuable resource for supply chain/commodity managers.

Electronic tools for data capture and data management: As already mentioned in the LMIS section, there are several computer and technology-based tools in use for data capture and sharing these include; OpenLMIS which provides data entry for data coming from paper-based reports (which then also serves as a backup) and eHIN, a digital health initiative primarily deployed to improve health supply chain visibility at all points of health service delivery in the country. Challenges noted with the e-systems have been mentioned in the LMIS section along with related recommendations.

Supply chain policies, guidelines, and SOPs

Figure 24. Job aids posted at SDP

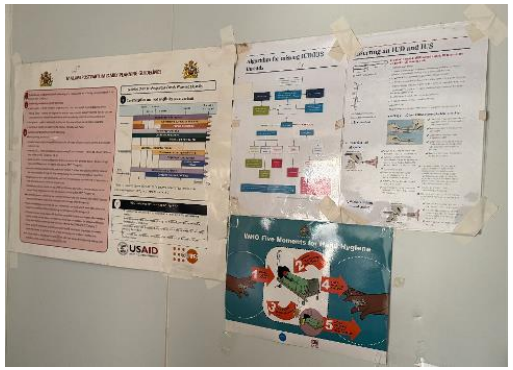


Figure 25. Job aid posted at SIAB

Job aids: In addition to the SOP Manual, workplace instructions can be complemented by other types of job aids: tools that further assist or guide staff on how to do their logistics or other work tasks. Such job aids can take the form of printed documents, including job aids that are themselves found within the existing and draft future SOP Manual, providing step-by-step instructions on how to perform various logistics tasks. Job aids can also take the place of posters, leaflets, pamphlets or other forms which provide different types of instruction. One good example of this is an instruction page on how to fill out the FP register, that page is printed as the first page in the register and gives detailed instructions on how to fill the register.

As shown in Figure 24 and 25, other types of job aids were observed in many of the facilities that were visited. While some (Figure 24) focused on FP/RH service provision (how to counsel clients, comparisons of different FP methods and products, etc.) there were also a number of those job aids (Figure 25) that do focus on supply chain operations, such as the one shown, how to correctly follow good storage guidelines. The use of such job aids will certainly contribute to better management of health commodities.

Supervision checklists: Another type of job aid that was mentioned during interviews was a checklist used by supervisors during monitoring and supervision visits. Although the team was not able to directly observe the tool, interviewees did indicate that such a tool is used regularly during visits and that it includes supply chain elements to be monitored/supervised, and that use of the tool helps to identify gaps and can lead to solutions.

Training, monitoring, and supervision

In order to ensure compliance of supply chain policies and SOPs, staff need to receive routine training and supervision. Both interventions are largely dependent on and driven by development partners. Each partner focuses on their project objectives which results in numerous training materials and supervision tools, creating duplication in efforts across programs. Similar to training and supervision interventions, monitoring forums such as TWGs, and review meetings take place depending on availability of partner funding.

Supply Chain Training: Out of the 12 staff that were interviewed at the six health facilities that the assessment team visited, six mentioned that they had received some type of training on logistics-related topics, ranging from more formal LMIS training and eHIN to general pharmacy management training and good storage practices. Staff also mentioned that some training took place on the job and that some was done in college. Most of those interviewed, specified that these training events were provided or sponsored by development partners, such as CHAI or Chemonics, and some indicated that training is somewhat fragmented and not comprehensive. Some interviewees mentioned that on-the-ground coaching and mentoring are used to help improve supply chain management skills over time; others mentioned that more coaching and mentoring would be a positive addition to existing capacity-building efforts. Additionally, the staff that the team spoke with mentioned that additional opportunities for staff development/training would be welcome. Interviewees mentioned in-service trainings in particular. While in-service training can be beneficial, it can also be resource intensive.

Monitoring and Supervision: Again, among the 12 SDP staff interviewed, five were able to recall having received one or more monitoring and/or supervision visits in the recent past, with the frequency ranging from “one or two” to “one each quarter”. (There is apparently a schedule for supervision although that schedule is not always strictly adhered to.) Visits were variously conducted by HTSS, RHD, DHO, family planning coordinator, and PSI. The activities conducted during the monitoring/supervision visits included those related to supply chain management: conducting physical inventory, checking recordkeeping, providing feedback and making suggestions for improvement, and collecting data. Several staff mentioned that the supervisors used some sort of checklist to guide the supervision visit though others stated that there were no documented ToRs for supervision; nevertheless, the feeling was that the supervision visits were generally useful. Interviewees also mentioned that in some instances they can receive multiple supervision visits during a month, from different supervisors or units. And aside from the SDP level, focus group discussion participants indicated that supervision takes place at all levels of the system, starting at the central level to region, region to district, and then district (or central/regional) to SDP.

Gaps and recommendations

Gaps	Recommendations
Lack of ongoing professional development/skills building opportunities.	MOH/HTSS to explore options for providing more opportunities for formal or on-going staff development in the area of supply chain management. Options to consider may include: • organizing multi-day, one-day, half-day intensive in-service training. • reinforcing/expanding the mentoring/coaching system. • developing "virtual" training modules (online videos) focusing on specific supply chain management tasks. • sending "reminder" texts to staff on discrete supply chain management tasks. • incorporating a minimum number of supply chain management-related courses at schools/institutions that train staff destined to work in public-sector pharmacies. • incorporating supply chain CPDs points to license renewals for health workers working in supply chain management. In addition to the various options for training delivery, MOH/HTSS should also conduct inventory/audit all existing training opportunities with a view to regularize in-service and other trainings, to ensure ongoing skills refresher or development opportunities that cover the full range of logistics functions.
Lack of regular monitoring and supportive supervision visits based on established MOH guidelines: • Some facilities do not receive regular monitoring and supportive supervision visits (vs. the guideline indication that a facility should receive one visit per quarter); • Some facilities, especially in easier to reach locations, may receive up to four monitoring and supervision visits to the same facility within the same timeframe from different implementing partners.	• MOH/HTSS to rationalize the scheduling of monitoring and supervision visits to ensure equal coverage and reduce duplication. • Improve resource mapping to ensure resources are better leveraged to reach a greater number of facilities. • Consider conducting integrated supervision and monitoring visits and ensure that supply chain indicators are monitored during each monitoring/supervision visit.

Gaps and recommendations

Gaps	Recommendations
Although there are tools/checklists to guide the supervision visit, these may not be universally available and/or supervisors may not have been trained on how to use them during a supervisory visit. The assessment team found a general lack of knowledge among supervisors of what to do during a monitoring/supervision visit (i.e., how to conduct a structured supervision visit).	The MOH and HTSS should ensure that there are documented terms of reference and training for supervisors on how to conduct a monitoring/supervision visit: when to conduct a visit, how to prepare for the visit, what to do during the visit (including which supply chain performance indicators to monitor and how to calculate them), and what to do as follow-up to the visit.
Lack of availability of SOP manual at all service delivery points. The latest version available is in draft form, making it difficult to use or reference officially.	HTSS to finalize the latest draft of the MHCLMS SOP 2023. MOH/HTSS/LMU to ensure that all facilities receive a copy of the new 2023 SOP Manual as soon as it is published and available for distribution. Special notes: • While electronic versions may be accessible to some facilities, those without computers/tablets/other would need to receive a hard copy. • Also, a hard copy may be preferred when taking into account the level of comfort some people have with technology which may deter them from actually using the manual as an ongoing reference. • It would also be beneficial to take advantage of the distribution of the manual to provide some refresher training on supply chain procedures, particularly for any procedures that have changed since the previous SOP was put into place.
Even in cases where facilities have the tools and/or SOP manual, there is some lack of familiarity with some use of the tools and related commodity management procedures.	MOH/HTSS/districts to continually monitor application of supply chain SOPs and tools and provide refresher training when needed. In particular, interviews showed a need for refreshers on the existing emergency order procedures and the use of OpenLMIS in "offline" mode when the internet connection is spotty. District FP Supply Chain Committees should provide these resources and incorporate resources and information on Supply Chain SOPS and tools into their routine OJT and supervision activities to help with sustainability and maintenance of capacity within district structures, instead of relying on central level resources and capacity.

X. Finance and Donor Coordination

Finance

While there is a high donor commitment to support the FP program in commodity procurement, the result is that there is a high level of dependency on the donors. It is estimated that more than 90% of commodities are funded by donors. Figure 26 below reinforces this notion: all past procurements for DMPA-SC for instance, are partner funded, either by USAID or by UNFPA. In addition to the commodity costs covered, donors also cover a portion of supply chain and related operational costs, including support for supervision, support for internet access, and others. Government commitment is increasing, evidenced by a 10% annual rise in contributions for FP procurement by the National Treasury.

Similarly, there is a high level of dependence on government facilities for family planning services and products. Public sector accounts for approximately 60% of services, with the not-for-profit sector–which also relies to some extent on government funding–accounting for approximately 37% of services, and private sector approximately 3% of services.

Focus group participants observed that districts that have a partner to support them tend to perform better in terms of supply chain management.

There is also some level of duplication of efforts, which can contribute to the strain on finances. For instance, interviewees noted that facilities may receive multiple shipments in a single month or multiple supervision visits during the same month. This can result in excessive spending on those activities, using precious financial resources.

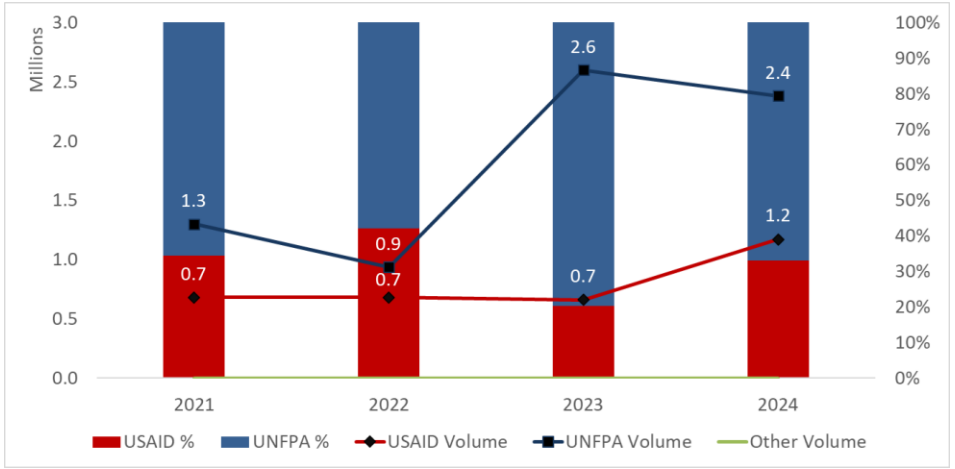
Total Market Approach: A total market approach (TMA) is when public and private players coordinate to jointly meet the healthcare needs of a population and leverage the strengths of each player to maximize the reach and quality of services. In many developing countries, segments of the population use the private sector for their healthcare needs. The private sector is a diverse group that includes individual clinics operated by doctors, nurses, or midwives, as well as hospitals, drug shops, and pharmacies. These providers can be for profit, not for profit, or faith-based organizations.

Source: https://www.fpfinancingroadmap.org/learning/specific-topics/total-market-approach

Funding for DMPA-SC procurement: As shown in Figure 26, USAID and UNFPA have procured 100% of the DMPA-SC needs for the Malawi MOH in past years. The total procured in 2021 was almost 2M units, up to around 3.6M in current commitments for 2024, and another 2-3M units forecasted to meet 2024 needs. The MOH's forecast for 2024 includes a government procurement of 230K units, leaving 2.3M currently unfunded (note: projected needs not shown in graph).

Source: Q2 2024 supply plan, GFPVAN, April 2024.

Figure 26. DMPA-SC procurement funding



Donor coordination

As mentioned earlier, there are a number of technical working groups and other bodies organized to help ensure coordination among government and the various supply chain donors and partners. These coordination mechanisms have varying degrees of success in preventing duplication of efforts and resources.

The existing coordination mechanisms help to ensure some level of transparency in sharing of information and that everyone is informed about supply chain operations and issues, including product availability. Among other things, coordinating mechanisms are responsible for redistribution of products (from overstocked to understocked facilities), quality-related issues, and reviewing supply plans and the stock situation on a regular basis.

Through its attendance at two technical working group meetings, the assessment team was able to observe first-hand the participation of various partners in the presentations and discussions, thereby demonstrating the high level of coordination.

With the upcoming creation of a Logistics Management Unit, this unit will be able to take the lead to provide additional means for ensuring ongoing and regular coordination among the various partners: government, CMST, development partners, and others.

Gaps and recommendations

Gaps	Recommendations
High level of dependency on donors/development partners for commodity costs and for some supply chain operational costs.	MOH/Finance to explore ways of diversifying funding sources for FP products, services and supply chain operations. One option would be to consider applying TMA to the provision of FP/RH services. Another option would be to explore the possibility of requiring some out-of-pocket payments for FP products or services, although this could place significant financial burden on the clients. Ensure alignment and adherence to UNFPA Compact agreements, as part of a plan for increased domestic financing for FP commodity procurement over time.
Inadequate donor coordination with regard to procurement of FP commodities. Some commodities have had more commitments from donors, while there are gaps in other commodities.	Promote improved coordination between the government and donors/development partners to ensure efficient use of resources across all funding sources. Donor coordination would involve timely and direct sharing of quantifications, supply plans, and funding gaps with donors. Overall, there is a need for increased investment and coordination/leadership from RHD around donor coordination.
There is currently a significant funding gap for DMPA-SC in 2024/2025.	Increase ongoing advocacy to donors, led by RHD, but in conjunction with TA partners, the Access Collaborative and the Consensus Planning Group (CPG), to ensure donors commit sufficient and timely funding to keep central stock levels within the healthy min-max levels.

Conclusion and way forward

Conclusion and way forward

The supply chain assessment conducted in Malawi under the Injectables Access Collaborative Project has provided valuable insights into the challenges and opportunities for improving overall supply chain performance and improving the availability of contraceptives. The findings underscore the need for urgent actions to address supply chain gaps and enhance the efficiency and cost-effectiveness of family planning commodity distribution in the country.

To ensure sustainable progress, it is vital for the Ministry of Health, in collaboration with development partners and relevant stakeholders, to prioritize the implementation of the recommendations outlined in this report. Prioritization should involve categorizing recommendations into high, medium, and low priority based on their urgency and potential impact. Once prioritized, the higher priority recommendations should be selected for further breakdown into specific costed activities, which can then be integrated into the master plan for the Reproductive Health Directorate (RHD); medium and lower priority recommendations can be addressed as resources allow and/or at a later time. By incorporating these activities into the master plan, the MOH can ensure that they receive the necessary funding and resources for successful execution, leading to tangible improvements in the family planning supply chain system for Malawi.

Appendix

List of respondents: National group discussion

Name	Position	Organization
Felix Kaminyoghe	ASRMNH	CHAI
George Maruwo	AS - SRMNH	CHAI
Frehiwot Birhanu	Director of programs	CHAI
Elinat Matupa	Program Manager	CHAI
Chisomo Chilombo	SCO	GHSC – PSM
Rose Chikumbe	Logistics officer	MOH – RHD
Andrews Gunda	CD	CHAI
Tanaw Bawoke	CD	BLM
Juliana Kanyengambeta	DDRH	RHD
Bernadette Chibwana	Pharmacist	MOH – HTSS
Eliza Ngulu	LSCO	UNDP
Thokozile Mussa	CBFSC	GHSC - PSM

List of respondents: National group discussion

Name	Position	Organization
Mary Phiri	CRHO – FP - RHD	MOH – RHD
Samuel Noah	Pharmacist	MOH – KCH
Nelson Nanchinga	PO	MOH – DHA
Felix Khuluza	Consultant	KUHES
Emmanuel Ndilowe	STA	HTSS – PSM
Noah Chirwa	CQTM	BLM
Semu Bangelo	PSM Officer	DHA
Jessie Chirwa	PRHD – FP	MOH – RHD
Godfrey Kadewere	Director HTSS	MOH – HTSS
Charles Nzawa	M&E Specialist	GHSC - PSM
Daniel Teddesse	Country Director	GHSC - PSM
Denver Raisi	PSM Director	GHSC - PSM

List of respondents: National group discussion

Name	Position	Organization
Abera Mengitsu	MIS & DA Director	GHSC – PSM
Innocent Mbowela	Ag DM	CMST
David kulemela	Ag QAM	CMST
Prosper Mtambo	Pharmacist	FPAM
Steve Phuma	Pharmacist	CML
Beatrice Banda	LDM	CMST
Lifton Palani	PSM Officer	NTLEP
Chikhulupiliro Chimwaza	Pharmacist	MOH - HTSS

List of respondents: Regional group discussion—Central

Name	Position	Organization
Mirriam Chikafa	SMC	MOH
Patrick Kumpukwe	CO	BLM
Joyce Mtonga	SMC	LL DHO
Rebecca Nchocholo	SMO	LL DHO
Mary Chirambo	FP Coordinator	LL DHO
Linda Chimbalanga	Reproductive DNO SNMO	LL DHO
Monica Jali	PT	LL DHO
Luka Mgona	FP Coordinator	MOH D2
Owen Chikhwaza	DDRH	MOH RHD
Mirriam Nyava	HMISO	LL DHO
Keneth Matumba	SD Coordinator	FHS
Enock Foster	BMC	CMST

List of respondents: Regional group discussion—Central

Name	Position	Organization
Telia Phiri	NMO	MOH DHO
Fraser Chisale	Pharm Tech	MOH
Blessings Tambe	Nurse	MOH – Mchinji
Enipher Changóndola	FP Coordinator	MOH – Mchinji
Benson Banda	SMO	MOH – Dedza
Roy Saizi	SMO	MOH - Mchinji
Patrick Chikafa	Pharmacist	MOH – Mchinji
Steve Chigule	HMIS	MOH – Mchinji
Jawo Makeswa	CO	MOH – Ntchisi
Aviss Chioko	NO	MOH – Ntchisi
Felistas Bunu	FP Coordinator	MOH – Ntchisi
Ndindase Maganga	DNMO	MOH - Ntchisi

List of respondents: Regional group discussion—Central

Name	Position	Organization
Racheal Soko	Pharm Tech	MOH – Ntchisi
Charity Nyando	Phar Assistant	MOH – Dedza
Chancy Banda	DNMO	MOH – Dedza
Alufeyo Chirwa	FP Coordinator	MOH – KU
Jonathan Ngáma	HMIS	MOH – KU
Gloria Magombo	DNMO	MOH – Kasungu
Veronica Mdengero	HMIS	MOH – DZ
Derek Mwayamai	HMIS	MOH – NS
Mwayi Sabola	SMC	NU – DHO
Monica Chisale	FP Covid	NU – DHO
Madalito Mwamlima	SNO	NU – DHO
Chicco Msowoya	HMIS	MOH – NU

List of respondents: Regional group discussion—Central

Name	Position	Organization
Vincent Mkwepere	CO	MOH – NU
Francis Mussah	SPA	MOH – NU
Bernadette Chibwara	Pharmacist	MOH – HTSS
Nelson Nanchinga	PO	MOH – DHA
Tinamwabi Msiska	DNMO	MOH – Nchinji
Charles Nzawa	MadeSpec	GHSC – PSM
Daniel Taddesse	CD	GHSC – PSM
Denvar Raisi	PSM Director	GHSC – PSM
Abera Mengitsu	MIS & DA Director	GHSC – PSM
Innocent Mbowela	Dry DM	CMST
David Kulemela	AgQAM	CMST
Prosper Mtambo	Pharmacist	FPAM

List of respondents: Regional group discussion—Central

Name	Position	Organization
Stevie Phuma	Pharmacist	CML
Kenneth Matumba	SD Coordinator	FHS
Beatrice Banda	LDM	CMST
Lifton Palani	PSM Officer	NTLEP

List of respondents: Regional group discussion—North

Name	Position	Organization
Joshua Chikuta	SNO	MOH – NB – DHO
Emmanuel Malinje	HMISO	MOH – NB – DHO
Jaston Chataika	HMA	MOH Mzimba North
Phillimon Nyondo	NIMT	MOH – NB – DHO
Tumalike Mwambyale	NMO	MOH – NB - DHO
Chance Kondowe	CO	MOH – NK – BAY
Chimaliro Spain	SNO	MOH Karonga
Bernadette Razunga	DNMO	MOH Karonga
Ruth Ngwalo	FP Coordinator	MOH Karonga
Dennis Chiona	RO	MOH Karonga
Evaristo Nthete	Pharm Tech	MOH – NB – DHO
Khwima Munthali	Pharm tech	MOH – MZN - DHO

List of respondents: Regional group discussion—North

Name	Position	Organization
Jessie Salamba	RRHO FP	MOH – RHD
Clifford Dedza	PSM	MOH – HTSS
Lifton Pillani	Pharmacist	MOH – NTLEP
Judith Chaula	CHNO	MOH – MZN – DHO
Austin Moyo	Manager	BLM
Martha Munthali	CUNHAN	MOH Mzimba North
Creamy Chilango	Clinician	Mzimba south
Lumbani Mnyenyembe	HMIS	Mzimba South
Paul Kasalu	SMC	Mzimba South
Olive Zgambo	SNO	Mzimba South
Tupilike Moyo	CHNT	Mzimba South
Brenda Miamba	Pharm tech	Mzimba South

List of respondents: Regional group discussion—North

Name	Position	Organization
Mercy Banda	NO	Mzimba North
Thomas Kalua	HMIS	MOH Karonga
Louis Hawonga	Pharmacist	MOH karonga
Witness Chawinga	SMC	Mzimba North
Henry Phiri	DD	MOH – RHD
Clifford Dedza	SPT	MOH – HTSS
Brenda Silika	PT	CMST
George Maruwo	SA SRMNH	CHAI

List of respondents: Regional group discussion—South

Name	Position	Organization
Chrissy Chamveka	FP Coordinator	Machinga DHO
Tawonga Mkandawire	Pharmacist	Zomba Central
Andy Kisyombe	Senior Pharm Tech	Thyolo DHO
Kelvin Makina	Sinior Pharm Tech	Machinga DHO
Davison Ndhlovu	Clinician	Thyolo BLN
Ben Soko	Clinician	BLN
Alice Khonje	SNO	Machinga DHO
Mayamiko Kayuzga	SMC	Zomba DHO
William Mlotha	DMO Rep	Zomba DHO
Lephnat Mauzu	FP Coordinator	Nsanje DHO
Ronald Mulumpuna	HMIS	Nsanje DHO
Maclean Changadeya	SNO	Nsanje DHO

List of respondents: Regional group discussion—South

Name	Position	Organization
Lameck Kandiero	DMO Rep	Nsanje DHO
Modester Chimwenje	SMC	Nsanje DHO
Esther Mwalwanda	HMIS	Zomba DHO
Yanko Yakobe	SNO	Zomba DHO
Henry Khaniwa	FP Coordinator	Zomba DHO
Ellida Bvutula	SMC	BT – DHO
Naomi Banda	SNO	BT – DHO
Mercy Nkumbadzala	HMIS	BT – DHO
Adamson Kaira	Pharm Tech	CZ – DHO
Felix Botha	Pharm Tech	ZA DHO
Francis Nangantani	Pharm Tech	Nsanje DHO
Manasse Chapita	Pharm Tech	BT DHO

List of respondents: Regional group discussion—South

Name	Position	Organization
Rose Chikumbe	Logistics Officer	MOH – RHD
Christina Diness	NO	PE – DHO
George Lipande	SCO	PE – DHO
Lordsons Mkonjo	Senior Pharm Tech	PE DHO
Ganizani Paul	FP Coordinator	PE – DHO
Bertha Stanford	FP Nurse	BT – DHO
Jessie Dawa	NO	Machinga DHO
Darlington Mwehiwa	CO	Machinga DHO
Gift Malizani	HMIS	Machinga DHO
Matilda Thomas	Pharmacist	QECH
Felix Kaminyoghe	ASRMNH	CHAI
James Njinga	HMIS	MH - DHO

List of respondents: Regional group discussion—South

Name	Position	Organization
Andrew Kaphamtengo	HMIS	PE – DHO
Euvencio Kambalame	MSC	MH – DHO
Macdonald Gondwe	SMNA	MH – DHO
Emmanuel Nkonde	Clinician	MH – DHO
Patricia Yosiya	FP Coordinator	MH – DHO
Esmie Kamaliza	SNMO	Thyolo DHO
Duncan Chakana	Pharm Tech	Mangochi DHO
Regina Mponya	FP Coordinator	Thyolo DHO
Christina Bizweck	NO	Thyolo DHO
Blessings Dangwe	HMIS	Thyolo DHO
Veronica Makondetsa	SMC	PE – DHO
Grivin Khonje	SCO	Mchinga DHO

List of respondents: Regional group discussion—South

Name	Position	Organization
Shadok Kadzepe	PT	CMST
Juliana Kanyengambeta	DDRH - FP	MOH – RHD
Godfrey Kudimuvu	DHSS	MOH
Aleck Asima	CO Coordinator	Ndirande HC
Chisomo Mkandawire	SDM	FSH
Chikhulupiliro Chimwaza	Pharmacist	MOH - HTSS

List of respondents: Facility visits

Name	Position	Organization
Leman Dinala	Pharmacist	Dowa DHO
Limbitso Sengani	Pharm Tech	Dowa DHO
Hislade Ngwira	Pharmacist	Dowa DHO
Idah Kachikoti	FP Coordinator	Dowa DHO
Timoth Chunde	Pharm Tech	Mponela DHO
Oscar Nkwante	Pharm Assistant	Kaweche HC
Beatrice Chikudzu	Nurse Midwife	Kaweche HC
Kwhima Munthali	Pharm Tech	Mapale DHO
Beatrice Banda	Nursing Officer	Mapale HC
Nemah Mwenda	Nurse	Ndirande HC
Thompson Chipeta	Pharmacy Assistant	Ndirande HC
Symon Goliat	Senior Pharmacy Technician	Blantyre DHO
Manasse Chapita	Pharmacy Technician	Blantyre DHO

List of participants: Consensus building meeting

Name	Position	Organization
Chikondi Magaleta	Chief Internal Auditor	MOH - DTDU
Chisomo Chirombo	CSO	GHSC - PSM
Nelson Namchinga	PO	MOH - DHA
Sarah Mayuni	PO	MOH - DHA
Phyllis Ocran	Supply Specialist	UNICEF
Viktor Pot	SC	WFP
Aeron Mbotzale	SC	WFP
Beatrice Banda	WM	CMST
Prosper Mtambo	PA	FPAM
David kulemela	Ag QAM	CMST
Mayankho Dana	SC Manager	BLM
Kenneth Matumba	SD Coordinator	FSH

List of participants: Consensus building meeting

Name	Position	Organization
Thokozile Mussa	CBFIC	GHSC - PSM
Kondwani Kuthyola	MIS + DA Assistant Director	GHSC - PSM
Lusungu Mkandawire	DISC Coordinator	FSH
Llyud Myafih	LSCS	HTSS - PSM
Kondwani Shaba	LMU SCA	GHSC - PSM
Felix Khuluza	RHD Consultant	KUHES
Elinat Matupa	Program Manager	CHAI
Frehiwot Birhanu	Director of Programs	CHAI
Chikhulupiliro Chimwaza	Pharmacist	MOH - HTSS

List of participants: Reproductive health commodity security meeting

Name	Position	Organization
Kingston Balala	PQMO	MOH - QMD - SEZ
Lucy Chigwenembe	CQMO	QMD - SWZ
Gift Kwamdera	CQMO	QMD - SEZ
Martha valeta	PM	PSI
Lusungu Mkanadawire	DISC Coordinator	FHS
Prosper Mtambo	PA	FPAM
Chisomo Chiombo	SCO	GHSC - PSM
Ruth Mwale	CQMO	QMD North
Rose Chikumbe	Logistics Officer	MOH - RHD
Samuel Kapito	CSD	BLM
Juliana Kanyengambeta	DDRH	MOH - RHD
Thandi Bobe	P. Ass	PROPEL Health

List of participants: Reproductive health commodity security meeting

Name	Position	Organization
Alinafe Tolimbana	SDC	FSH
Tiwonge Ngonda	PIC0-N	CMST
Matha Zemberi	SPM	FHS
Frehiwot Birhanu	Director of Programs	CHAI
Mercy Katantha	CQMO	QMD - SWZ
David kulemela	Ag. QAM	CMST
Elinat Matupa	Program Manager	CHAI
Flora kalimba	RH/FP SCC	GHSC - PSM
Doreen Namagetsi Ali	D-RHD	RHD

List of figures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