USAID
FROM THE AMERICAN PEOPLE

PATHFINDER

January 2024

Improving Contraceptive Availability and Use in Uganda by Strengthening District Supply Chain Management Capacity

Lessons from the USAID Uganda Family Planning Activity

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the sole responsibility of the Tubiteho Program and do not necessarily reflect the views of USAID or the United States Government.

Pathfinder is implementing the U.S. Agency for International Development (USAID) Uganda Family Planning Activity (2020-2025) in partnership with Uganda Protestant Medical Bureau (UPMB), Samasha Medical Foundation (SMF), and the Uganda Youth and Adolescent Health Forum (UYAHF), to address underlying social, cultural, and structural barriers to contraceptive access, particularly among young people, first-time parents, and low-parity women in 11 districts across Uganda.

Change lives with us. pathfinder.org

ON THE COVER: ***Ninsiima Midius, a nurse at Bugogo health center II, Kyegegwa district, and a USAID Uganda Family Planning Activity staff member review the family planning commodity stock card.*** PHOTO CREDIT: ***Pathfinder***

Summary

Effective supply chain management (SCM) is essential to the delivery of quality voluntary family planning (FP) services.

But despite robust SCM systems in Uganda, the USAID Uganda Family Planning Activity (USAID/FPA, 2020-2025) baseline assessment revealed inefficiencies hindering the country's procurement planning processes and contributing to contraceptive stockouts. Challenges included systemic gaps in district FP commodity stock management practices; inconsistent quality of health facility (HF)- and community-level FP stock data reported through District Health Information Software 2 (DHIS2); and limited capacity of health workers to analyze and use data to plan and make decisions. To address these gaps, USAID/FPA worked with district-level stakeholders to strengthen SCM; enhance capacity in web-based ordering at selected HFs; and monitor FP commodity stocking and use. USAID/FPA data suggest that over time, planning for contraceptive commodities grew more realistic, stockouts of most methods decreased, and the number of FP users increased. This brief provides an overview of the key strategies and activities that contributed to these promising results and offers data and programmatic insights for governments, donors, partners, and other SCM stakeholders to consider as they work to strengthen commodity security in their own contexts.

DEFINITIONS

National Medical Stores (NMS): Government organization mandated to procure, store, and distribute essential medicines & medical supplies to all public HFs in Uganda.

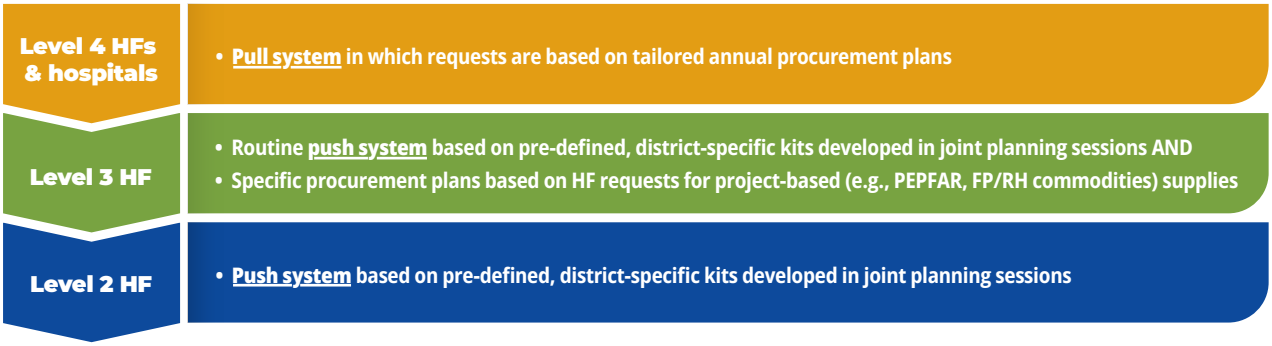
Alternative distribution strategy (ADS): Ministry of Health (MOH)-led initiative to accommodate emergency ordering using public-private partnerships to distribute select FP and RH commodities through innovative mechanisms to private not-for- profit HFs to reduce stockouts and increase uptake at public HFs.

Joint Medical Store (JMS): Private nonprofit organization established by Uganda Catholic Medical Bureau & Uganda Protestant Medical Bureau & licensed by the National Drug Authority to engage in the importation, warehousing, exportation, wholesale, & distribution of medicines and health supplies. JMS provides warehousing for ADS commodities under the One Facility One Warehouse strategy.

Background

The availability of commodities is essential to deliver quality FP services. In Uganda, the National Medical Stores (NMS) is mandated to procure, store, and distribute essential medicines and medical supplies, including donations, to all public HFs.[1] HFs place bimonthly commodity orders to NMS using the NMS+ Client Self Service Portal based on their annual procurement plans. HFs' orders to NMS are guided by their allocation under the government's reproductive health (RH) commodities budget[2] for procurement of

Figure 1. Commodity Procurement Approach by Health Facility Level



[1] In addition, to serve the private sector and address gaps in NMS distribution to the public sector, most commodities procured with support from development partners are handled through the ADS and managed by JMS.

[2] NMS Vote 116 under Output 15 - Supply of RH Items

essential medicines and health supplies for all public HFs.

NMS conducts an annual procurement planning activity with all HFs to project their essential medicine and health supply needs for the next fiscal year (FY) six to nine months before it begins (Figure 1). Realistic planning for the new FY requires quality historical data to accurately project the current performance level. But while each HF has been provided and knows its specific budget for essential medicines and supplies (including non-contraceptive commodities such as lidocaine and gloves) HFs are not provided and do not know their specific budgets for contraceptives. This limits the accuracy of projections of commodities needed, as less attention is given to supplies for which specific budgets are not allocated.

Despite the systems in place, inefficient ordering practices, overreliance on implementing partners to provide buffer stock from the alternative distribution strategy (ADS), and limited funding from the Government of Uganda (GOU) to procure FP commodities hinder the country's procurement planning process. A 2016 study conducted in two districts of Uganda found that contraceptive stockouts were common and contributed to stress, increased costs, domestic conflict, and unintended pregnancies among FP clients. Contraceptive stockouts also had an adverse effect on providers, who reported emotional distress, blame from clients, deterioration of skills, lower demand for their services, and inability to address stockouts under the existing supply system.[3]

The USAID Uganda Family Planning Activity (2020–2025)

Pathfinder implemented USAID/FPA in partnership with the Uganda Protestant Medical Bureau, Samasha Medical Foundation, and the Uganda Youth and Adolescent Health Forum. USAID/FPA aimed to support the GOU to increase adoption of positive RH behaviors among women, men, and young people to contribute to long-term demographic shifts in Uganda's modern contraceptive prevalence and fertility rates by 2025 in 11 focus districts.[4] USAID/FPA sought to increase access to quality, voluntary FP services by strengthening the health system with accountable leadership, sustainable financing, demand generation, health workforce development, SCM, and information system management at HF and community levels.

The supply chain management context

The USAID/FPA baseline assessment indicated several SCM challenges:

- **Systemic weaknesses in district FP commodity stock management practices;**
- **Low-quality HF- and community-level FP stock data reported through DHIS2; and**
- **Limited capacity of health workers to analyze and use data to plan and make decisions.**

The baseline stock status assessment indicated a 45% stockout rate for intramuscular and subcutaneous depot medroxyprogesterone acetate (DMPA IM & SC), a contraceptive tracer.[5] Of the 206 HFs assessed in the 11 supported districts, 56% were experiencing implant stockouts. Use of existing coping mechanisms such as inter-facility and -district redistributions was not well documented, potentially masking actual contraceptive needs in public HFs.

USAID/FPA's approaches to strengthen district-level supply chain management

To respond to gaps and needs identified in its baseline assessments, USAID/FPA implemented a set of interventions to improve FP commodity security at service delivery points by strengthening district supply chain systems. USAID/FPA leveraged the available data at the national and district levels to improve the annual NMS procurement planning process and systematically ensure alignment with patterns in method preference, HF-level capacity to provide specific methods, and demand generation activities to increase the uptake of FP services. The following strategies helped improve annual procurement planning processes:

- Strengthening district-level SCM capacity;
- Enhancing capacity in web-based ordering at selected HFs; and
- Monitoring FP commodity stocking and use

PHOTO: Pathfinder 2024

[3] Grindlay et al., "The Experience and Impact of Contraceptive Stockouts Among Women, Providers and Policymakers in Two Districts of Uganda," International Perspectives on Sexual and Reproductive Health 42, no. 3 (2016): 141, https://doi.org/10.1363/42e2016.

[4] Buliisa, Kiryandongo, Kibaale, Kyankwanzi, Kyegegwa, Kyenjojo, Ntoroko, Bundibugyo, Butambala, Gomba, and Rakai districts

[5] Contraceptive tracers are commodities tracked as a proxy on the stock status of different commodities at HFs, which are mandated to report on them monthly.

Robert Mucunguzi, the District MMS, works with Shiifah Nakaliisa, the assistant stores officer in Rakai district, to conduct an inspection of available FP commodities in store.

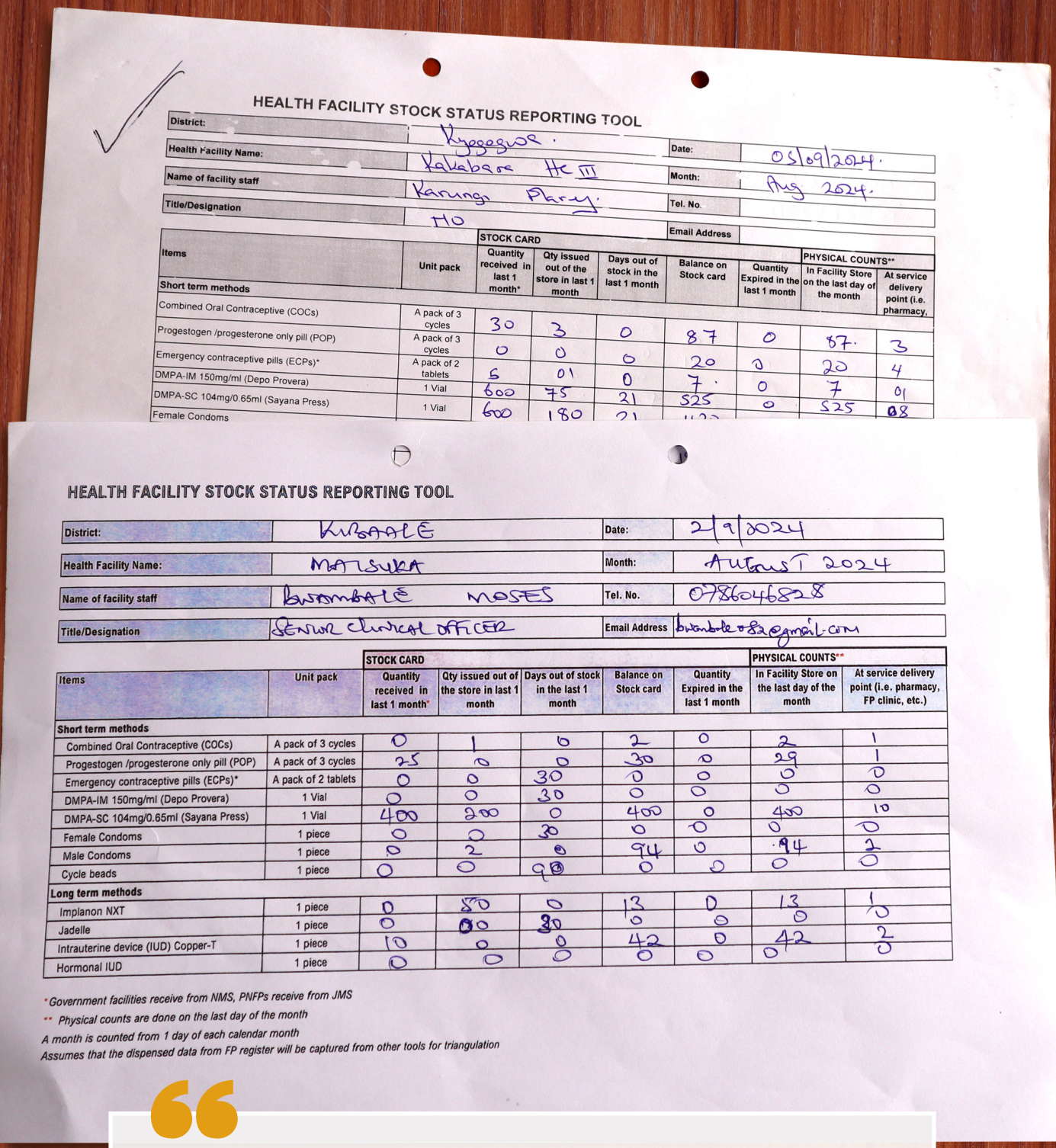
STRENGTHENING DISTRICT-LEVEL SUPPLY CHAIN MANAGEMENT CAPACITY

In 2021, the MOH introduced the One Facility, One Warehouse[6] strategy to provide a centralized mechanism of procuring, storing, distributing, ordering, and monitoring contraceptive commodities at all levels of the health system for both the public and private not-for-profit sectors. USAID/FPA translated this national strategy to the district level, orienting district health teams (DHT), including district-level implementing partners, on this strategy. USAID/FPA then developed district-specific plans to diagnose SCM challenges and ensure availability of the required commodities.

Guided by MOH policies and guidelines, the district health office (DHO) leads and coordinates the district FP program. The DHO designates a member of the DHT as the Medicines Management Supervisor (MMS) to support and coordinate supply chain functions to ensure commodity security. In collaboration with the MOH, USAID/FPA rolled out the Supervision, Performance, Assessment, and Recognition Strategy for RH Commodities (RH SPARS) in priority HFs across the 11 supported districts. This included training 88 MMSs to coordinate, monitor, and ensure contraceptive security at community, HF, and district levels.

USAID/FPA conducted quarterly supply chain performance review meetings, convening district and regional supply chain implementing partners, civil society organizations, and NMS regional teams to discuss bottlenecks. Participants coordinated actions to minimize supply chain disruptions using district and interdistrict redistributions; facilitated emergency ordering from ADS through JMS; prioritized support to low-performing HFs; and shared practical lessons.

[6] Carole Sekimpi, "How We Partnered with the Ugandan Government to Transform Contraceptive Choice" (MSI Reproductive Choices, March 2, 2022), https://www.msichoices.org/latest/how-we-partnered-with-the-ugandan-government-to-transform-contraceptive-choice/.



HEALTH FACILITY STOCK STATUS REPORTING TOOL

District:	Kyegegwa.	Date:	05/09/2024.
Health Facility Name:	Kakabara HC III	Month:	Aug 2024.
Name of facility staff	Karungi Flary.	Tel. No.	
Title/Designation	HO	Email Address	

Items	Unit pack	STOCK CARD					PHYSICAL COUNTS**	
		Quantity received in last 1 month*	Qty issued out of the store in last 1 month	Days out of stock in the last 1 month	Balance on Stock card	Quantity Expired in the last 1 month	In Facility Store on the last day of the month	At service delivery point (i.e. pharmacy,
Short term methods								
Combined Oral Contraceptive (COCs)	A pack of 3 cycles	30	3	0	87	0	87.	3
Progestogen /progesterone only pill (POP)	A pack of 3 cycles	0	0	0	20	0	20	4
Emergency contraceptive pills (ECPs)*	A pack of 2 tablets	5	01	0	7.	0	7	01
DMPA-IM 150mg/ml (Depo Provera)	1 Vial	600	75	21	525	0	525	08
DMPA-SC 104mg/0.65ml (Sayana Press)	1 Vial	600	180	21				
Female Condoms								

HEALTH FACILITY STOCK STATUS REPORTING TOOL

District:	KIBAALE	Date:	2/9/2024
Health Facility Name:	MATSUKA	Month:	AUGUST 2024
Name of facility staff	BWAMBALE MOSES	Tel. No.	0786046828
Title/Designation	SENIOR CLINICAL OFFICER	Email Address	bwambale82@gmail.com

Items	Unit pack	STOCK CARD					PHYSICAL COUNTS**	
		Quantity received in last 1 month*	Qty issued out of the store in last 1 month	Days out of stock in the last 1 month	Balance on Stock card	Quantity Expired in the last 1 month	In Facility Store on the last day of the month	At service delivery point (i.e. pharmacy, FP clinic, etc.)
Short term methods								
Combined Oral Contraceptive (COCs)	A pack of 3 cycles	0	1	0	2	0	2	1
Progestogen /progesterone only pill (POP)	A pack of 3 cycles	25	0	0	30	0	29	1
Emergency contraceptive pills (ECPs)*	A pack of 2 tablets	0	0	30	0	0	0	0
DMPA-IM 150mg/ml (Depo Provera)	1 Vial	0	0	30	0	0	0	0
DMPA-SC 104mg/0.65ml (Sayana Press)	1 Vial	400	200	0	400	0	400	10
Female Condoms	1 piece	0	0	30	0	0	0	0
Male Condoms	1 piece	0	2	0	94	0	94	2
Cycle beads	1 piece	0	0	90	0	0	0	0
Long term methods								
Implanon NXT	1 piece	0	50	0	13	0	13	1
Jadelle	1 piece	0	00	30	0	0	0	0
Intrauterine device (IUD) Copper-T	1 piece	10	0	0	42	0	42	2
Hormonal IUD	1 piece	0	0	0	0	0	0	0

*Government facilities receive from NMS, PNFPs receive from JMS

** Physical counts are done on the last day of the month

A month is counted from 1 day of each calendar month

Assumes that the dispensed data from FP register will be captured from other tools for triangulation

Using this tool, the project team evaluated existing stock management practices at community, HF, and district levels, to provide a clearer picture of order fulfilment rates, consumption, and contraceptive availability.

ENHANCING CAPACITY IN WEB-BASED ORDERING AT SELECTED HEALTH FACILITIES

Transparency was essential to districts' ability to identify the risk of contraceptive stockouts at service delivery points and take appropriate measures to avoid recurrence. Districts needed to know whether each HF made an order to NMS within the bimonthly order schedule; that the order matched consumption trends and was based on the latest stock position in the store and dispensing points; and to what extent the order was delivered at the end of the delivery cycle.

USAID/FPA supported MMSs to classify HFs based on their ability to directly enter orders into NMS+. This was determined by whether they had a functional computer and internet, whether personnel had been trained on NMS+, and whether trained personnel had been granted user rights. Then, in collaboration with the USAID Supply Chain Systems Strengthening Activity and NMS regional offices, USAID/FPA trained 112 staff from level 3 and 4 HFs and the district to use the NMS+ Client Self Service Portal to support web-based RH commodity reporting and ordering. Participants included health workers from 89 level 3 HFs previously on the kit-push system that transitioned to the pull system After the training, tracking of the reporting and ordering rates showed that all 116 HFs with user rights for the Client Self Service Portal were able to consistently order their commodities and supplies from NMS in a timely manner through the system.

MONITORING FP COMMODITY STOCKING AND USE

At baseline, USAID/FPA developed a comprehensive stock status monitoring tool for all FP commodities and supplies. Using this tool, the project team evaluated existing stock management practices at community, HF, and district levels, to provide a clearer picture of order fulfilment rates (OFR),[7] consumption, and contraceptive availability. This evaluation shed light on areas for improvement within supply chain processes. USAID/FPA worked with DHTs to coordinate consumption-based quantification and ordering for contraceptives and to monitor and analyze OFRs at the HFs. The MMS helped facilitate collection and analysis of monthly stock status data from HFs to determine instances of over- or under-stocking and make corrections—for example, through DHO-coordinated redistribution of overstocks to other HFs within and across districts. Where redistribution was insufficient, public HFs, through the DHO, placed emergency orders to JMS through the ADS. In addition, USAID/FPA supported monthly reviews with the district biostatistician and MMS to analyze and clean HF- and community-level FP data (e.g., on FP users and methods dispensed) reported through DHIS2. This process highlighted data gaps, such as incomplete or inconsistent reporting of FP clients served, and incomplete or inaccurate reporting of contraceptives dispensed. USAID/FPA focused on enhancing quality, timely, and complete reporting of FP commodities data. This involved providing health management information system (HMIS) tools to HFs and village health teams (VHTs) at the community level to capture FP data. USAID/FPA staff trained and mentored 584 health workers and 2,203 VHTs on correct and complete documentation of FP services provided to clients, including FP stock status data, in the HMIS tools. The district biostatistician worked with the HF data personnel on timely reporting of accurate monthly FP data to DHIS2. This effort included running queries for FP data in HFs' monthly outpatient report to aid the cleaning of FP data (e.g., clients served and stock status). Working with DHTs, USAID/FPA staff analyzed the FP data and held performance review meetings to discuss prioritizing interventions to improve FP service provision in the districts.

> **In a pull system, requests are based on tailored annual procurement plans.**
>
> **A push system is based on pre-defined, district-specific kits developed in joint planning sessions.**

PHOTO: Pathfinder Uganda

[7] The percentage of requested commodities that were delivered

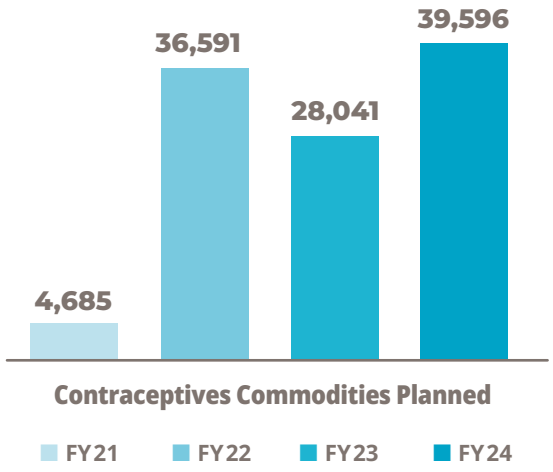
Results

Between FY21 and FY24, districts and HFs improved procurement planning, ensuring sufficient commodities were available to those seeking FP services. The number of commodities planned for procurement increased over time, from 4,685 in FY21 to 39,596 in FY24 (Figure 2).

In FY21, OFRs (the percentage of requested commodities that were delivered) were high (89% overall, Figure 3), but this is because the number of commodities planned for the same period was unrealistically low (Figure 2). From FY22 to FY24, when orders better reflected the population's contraceptive needs, overall OFRs increased from 19% in FY22 to 37% in FY24 (Figure 3). However, OFRs remained low, and there were large differences by method. OFRs were particularly low for injectables and Implanon NXT. These methods are in high demand and were affected by global supply chains, leading to a country-level stock out during FY23. Further, demand for injectables increased over time due to improved community-based distribution and the scale up of DMPA self-injection. These interventions were met with a challenge of low OFR coupled with delayed, combined[8] delivery of orders by NMS. This left many facilities with minimal stock or stockouts, forcing them to rely heavily on redistribution to try to meet community demand.

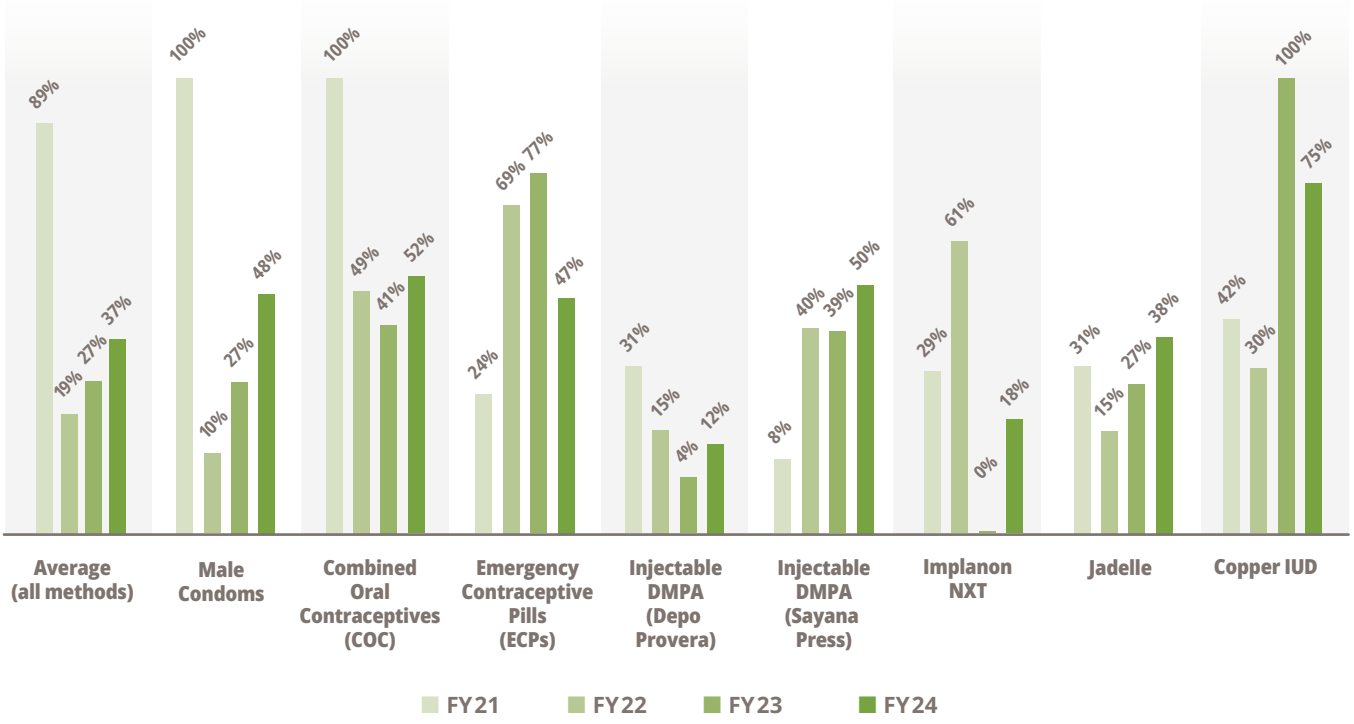
Given the ongoing challenge of low OFRs, monthly monitoring of stock levels at both district and HF levels played a crucial role in enabling stakeholders to proactively identify and mitigate potential supply gaps arising from low or non-fulfillment of orders. Although not all orders were fulfilled, the percentage of facilities reporting stockouts decreased for most methods between FY21 and FY24 (Figure 3).

Figure 2. Change in Contraceptive Quantities Planned for Procurement Over Time (11 supported districts)*



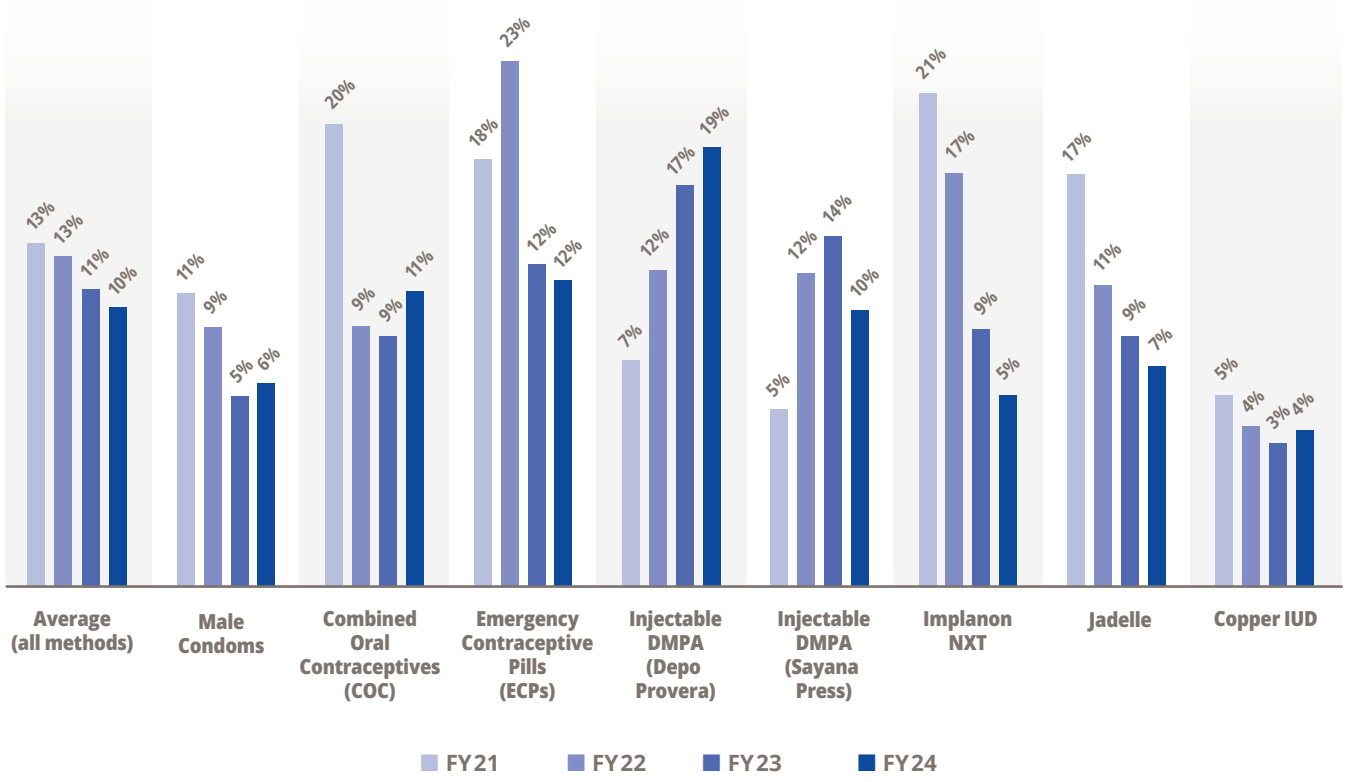
* FY20: March 2020–September 2020; FY21: October 2020–September 2021; FY22: October 2021–September 2022; FY23: October 2022–September 2023; FY24: October 2023–September 2024

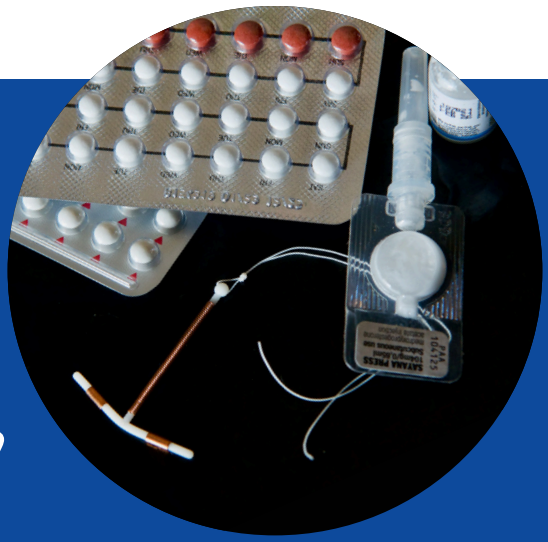
Figure 3. NMS Order Fulfillment Rates by Method Over Time (11 supported districts)



[8] Instead of delivering each cycle within the stipulated timeline, two or more cycles' worth of orders are delivered at once.

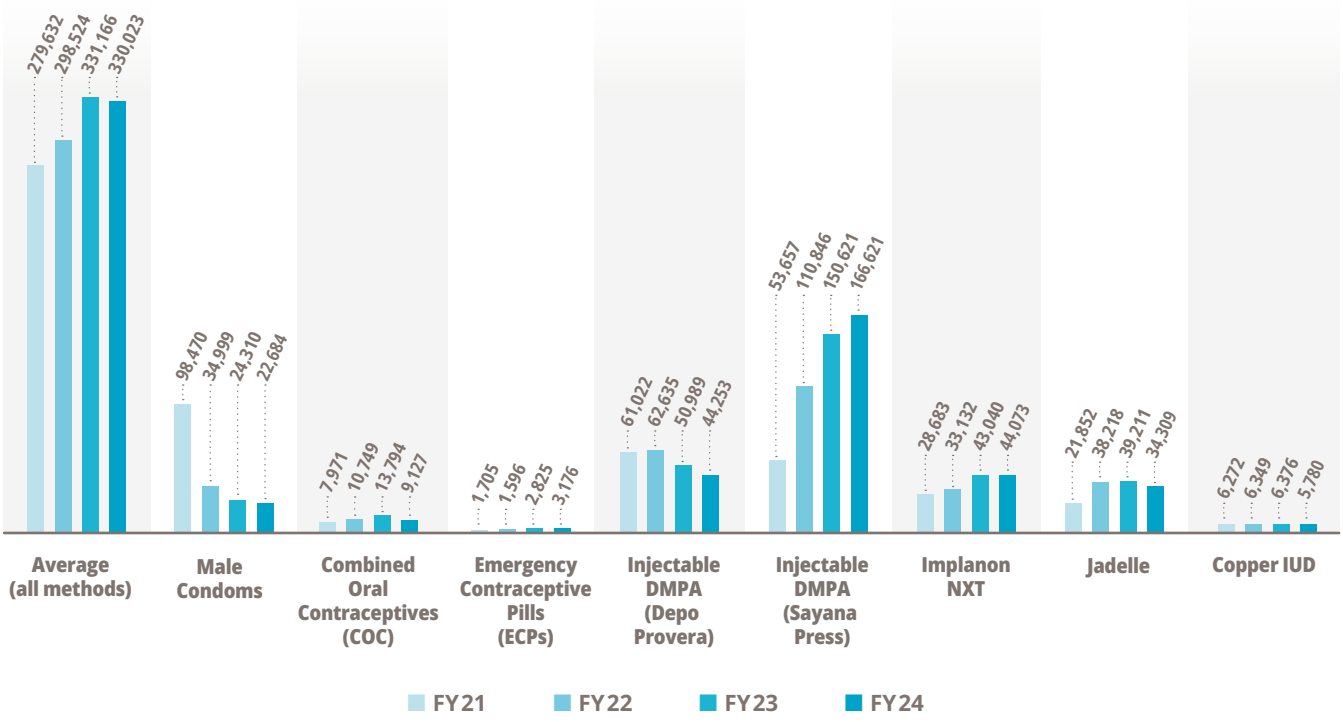
Figure 4. Percent of Facilities Reporting Stockout by Method Over Time (11 supported districts)





“Although not all orders were fulfilled, the percentage of facilities reporting stockouts decreased for most methods between FY21 and FY24.”

Figure 5. Number of FP Users by Method Over Time (11 supported districts)

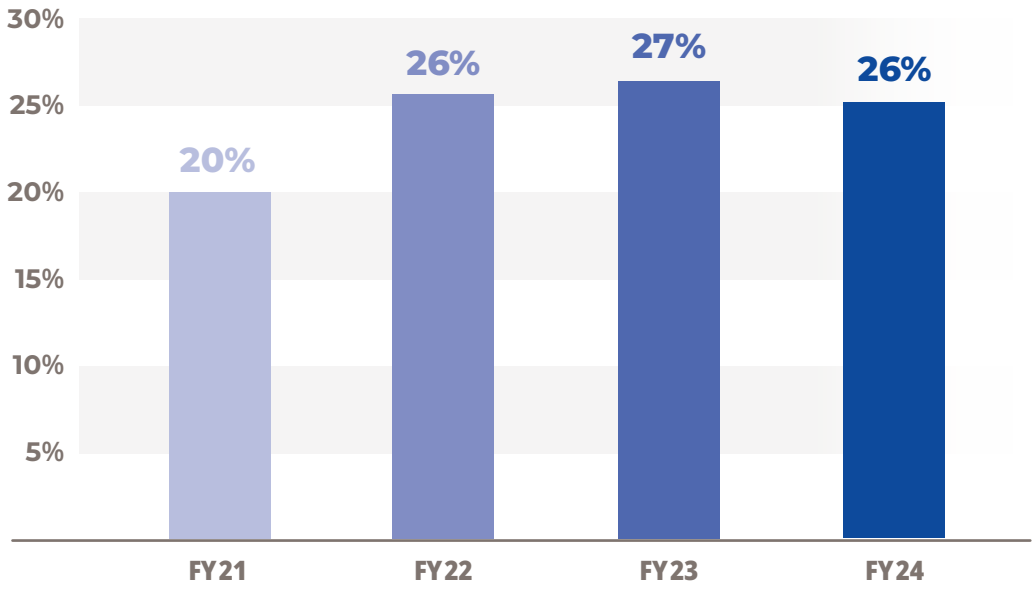


While securing contraceptive commodities is a major achievement, ensuring steady availability of all necessary supplies is vital for uninterrupted FP service delivery.

Averaging across methods and facilities, stockout rates dropped from 13% to 10% during the intervention period. However, more facilities reported stockouts for both forms of injectable DMPA (stockouts of Depo Provera increased from 7% to 19%; stockouts of Sayana Press increased from 5% to 10%). This is likely due to increases in demand for these methods alongside low OFRs resulting from national SCM challenges. Notably, the number of facilities reporting stockouts decreased for all long-acting reversible contraceptives (LARC). Stockouts of Implanon NXT fell from 21% to 5%; of Jadelle from 17% to 7%; and of the copper IUD from 5% to 4%. Given the low OFRs, one would expect stockout rates to be even higher. However, thanks to redistribution and the emergency orders fulfilled by JMS, stockout rates decreased over time. For example, while the OFR for Sayana Press in FY24 was 50%, only 10% of facilities reported stockout for this method in the same period.

Improvements in SCM likely contributed to increases in the number of clients provided with FP methods: overall, the number of FP users served across USAID/FPA districts grew from 279,632 in FY21 to 330,023 in FY24 (Figure 5). FP user data also supports our hypothesis that demand for injectables increased over time: the number of injectable users (Depo Provera and Sayana Press combined)

Figure 6. Percentage of FP Users Choosing a LARC Over Time (11 supported districts)



increased from 114,679 in FY21 to 210,874 in FY24. FP user data also supports the hypothesis that the decreases in stockouts of LARC methods (Figure 4) led to the ability of more girls and women who wish to choose a LARC to do so (Figure 6). The percentage of FP users choosing a LARC increased from 20% in FY21 to 26% in FY24.

Conclusion

USAID/FPA data show that over time, planning for contraceptive commodities became more realistic, stockouts of most methods decreased, and the number of FP users increased. The results indicate that HFs' ability to quantify, forecast, and order contraceptives based on reliable consumption data contributes to availability of a wider contraceptive method mix and therefore improved uptake of FP services at facility and community levels. Quality data (for example, HF- and community-level service use data, commodity and supply orders, NMS deliveries, and stocking trends at HF and district stores) is critical to a well-functioning FP/RH SCM system. While USAID/FPA had access to OFRs from NMS, the team did not have data on orders placed to JMS or fulfillment rates for these orders, making it difficult to understand the whole SCM picture. Emergency deliveries resulting from unfulfilled orders or growing demand should be included in quantification and annual procurement plans so that optimal resources that match the need can be gradually attained and sustained.

Continual district-level collaboration among the DHT and SCM stakeholders like NMS, JMS, development partners, and implementing partners was critical to the success of this intervention. This engagement helped districts understand their HFs' consumption-based commodity needs; identify the risk of contraceptive stockouts at service delivery points; and take appropriate measures to ensure contraceptive security. For example, DHT review of HF procurement plans and orders to NMS can help ensure that HFs' supply orders are based on consumption, reducing the risk of interrupted FP service delivery due to unavailability of non-contraceptive commodities such as gloves, syringes, local anesthetics, and applicable insertion and removal kits. The positive impact of collaboration among district leadership, the DHTs, and FP advocates and stakeholders underscores the importance of a comprehensive approach.
While securing contraceptive commodities is a major achievement, ensuring steady availability of all necessary supplies is vital for uninterrupted FP service delivery.

Contributors:
Gift Akampurira
Dr. Courtney L. Boudreau
Dr. Mohamad Ibrahim (Bram) Brooks
Elizabeth Futrell
Joshua Irafasha
Dr. Doreen Kenyangi
Eric Jemera Nabuguzi
Dr. Espilidon Tumukurate
Dr. Ritah Waddimba

Suggested citation: "Improving Contraceptive Availability and Use in Uganda by Strengthening District Supply Chain Management Capacity: Lessons from the USAID Uganda Family Planning Activity." Kampala, Uganda: Pathfinder International, 2024.

Pathfinder International Uganda
Plot 20 Ntinda II Road, Naguru | PO Box 29611
Kampala, Uganda
+256 414.255.939

pathfinder.org | @pathfinderInt:

PATHFINDER