COPPER ROSE ZAMBIA

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SAP OPERATIONAL ASSESSMENT REPORT

I. Introduction

1.1 Project Overview

Copper Rose Zambia (CRZ), a leading youth-led organization dedicated to empowering the youth and women in Zambia, is actively engaged in the Safe Reproductive Health Awareness Project (SAP). This initiative, operating across ten health facilities in Lusaka and Copperbelt Provinces, aims to enhance access to safe abortion care for women and girls in Mtendere, Chainda, Kalingalinga, and Ngombe Clinics and Chipata General Hospital in Lusaka, as well as Luangwa, Ndeke, Chimwemwe, Kawama, and Mindolo Clinics in Kitwe. However, a critical challenge faced by these facilities is the limited availability of safe abortion commodities and supplies, hindering consistent service provision. This is because once demand is generated, and the adolescents actually seek the health services that CRZ has highlighted, they may be disappointed to find that there are no safe abortion supplies and commodities for the services they are seeking. This may in-turn reverse the demand creation work that CRZ has done. To address this issue, CRZ initiated an operational assessment to identify bottlenecks in the supply chain and propose effective solutions to mitigating these bottlenecks in the supply of reproductive health commodities with a focus on safe abortion supplies at five target health facilities in Kitwe and five in Lusaka.

1.2 Assessment Objectives

The primary objective of this operational assessment was to conduct a comprehensive analysis of the supply chain of medical supplies and commodities related to safe abortion care.

Key objectives include:

- **Identification of Bottlenecks:** To identify existing challenges and bottlenecks in the supply chain, hindering the consistent provision of safe abortion commodities and supplies.
- **Recommendation Development:** To develop targeted recommendations addressing the identified bottlenecks, aiming for efficient and uninterrupted supply chain operations.

When doing a safe abortion, healthcare workers might use a range of medical tools, medications, and supplies to ensure the abortion procedure is as safe and comfortable as possible. Some of these include:

Mifepristone and Misoprostol:

These are drugs commonly used for medical abortion, especially in the first trimester. Mifepristone is usually taken first, followed by misoprostol one to two days later, to induce an abortion.

Sterile Gloves and Gowns:

Healthcare workers use sterile gloves and gowns to maintain aseptic conditions when attending to clients, reducing the risk of infection.

Ultrasound Equipment:

Ultrasound machines may be used to confirm the pregnancy and determine its gestational age, which helps healthcare providers choose the most appropriate method for the abortion.

Pregnancy Tests Kits:

Pregnancy test kits may be used to confirm the pregnancy especially in its very early stages.

Information, Education, and Communication Material for Counseling and Support Services:

Adolescents and young people seeking abortion should have access to counseling services to address their emotional and psychological needs. Supportive and non-judgmental advice is important during this process.

Contraceptives:

These may include condoms, oral contraceptives, or long acting reversible contraceptives. It is important to encourage clients who have had an abortion to use contraceptive measures in the future.

1.3 Project Scope

The operational assessment in Kitwe and Lusaka encompassed several essential tasks:

- **Desk Review:** We reviewed and analysed existing data, reports, and documents to understand the overall landscape of the supply chain.
- **Development of Assessment Tools:** We created specialized tools for operational assessment, tailored to the unique requirements of the safe abortion commodities supply chain. These tools included:
    - District Health Office (DHO) questionnaire
    - Facility questionnaire
    - Peer educator questionnaire
- **Stakeholder Consultations:** We facilitated engagement involving stakeholders at various levels including District Health Office staff, health facility staff, and peer educators who are part of the last mile supply chain.
- **Supply Chain Review:** We conducted a thorough examination of the supply and logistics system employed by ZAMMSA, focusing on procurement, storage, and distribution methods by adapting and using the Supply Chain Operation Diagnostic (SCOD) methodology developed by UNFPA. This ensured systematic identification of bottlenecks within the supply chain, enabling a precise understanding of the challenges faced during the supply of safe abortion commodities.
- **Recommendation Formulation:** This involved the development of clear and actionable recommendations to mitigate the identified bottlenecks and enhance the efficiency of safe abortion commodities supply to health facilities.

II. Methodology

2.1 Research Framework

The research methodology for this operational assessment was structured around a systematic exploratory design using the SCOD methodology which was recommended by the Reproductive Health Supplies Coalition. The design allowed for an initial collection of quantitative data through surveys, followed by in-depth qualitative investigations to provide context and depth to the numerical findings.

The following are the specific aspects that we were looking for based on our questionnaire

- Commodity distribution
- Supply chain system evaluation
- Inventory management
- Communication
- Technology utilisation
- Documentation and reporting
- Commodity storage
- Accessibility
- Bottlenecks

The following are the metrics used with the SCOD methodology

- Distribution and reverse logistics
- Storage
- Inventory management
- Information system and data integration
- Management of pending items and shortage
- Distribution, administration, and supply management
- Human talent
- Regulatory framework for supply chain management

2.2 Data Collection Techniques

Quantitative Data: Surveys and Data Analysis

Structured surveys were designed to gather quantitative data on procurement lead times, stock-out occurrences, demand forecasting accuracy, and inventory turnover rates.

Qualitative Data: Interviews

In-depth semi-structured interviews were conducted with key stakeholders, allowing for open-ended discussions. Qualitative data was analyzed thematically using thematic coding, ensuring that the perspectives and experiences of stakeholders were captured comprehensively.

2.3 Supply Chain Mapping

Visual Mapping Tools

We mapped the flow of commodities from national procurement to distribution at health facilities. Detailed annotations were added to highlight key stages, potential bottlenecks, and decision points within the supply chain.

2.5 Supply and Logistics System Review

Interviews with MoH/ZAMMSA Personnel

Semi-structured interviews with key District Health Office personnel were conducted. These interviews delved into procurement strategies, challenges faced, vendor relationships, and quality control mechanisms.

III. Supply Chain Overview

The ZAMMSA, established in 1976 under Act No. 9 of 2019 as a semi-commercial, limited company, operates under the Companies Act. It is responsible for the procurement, storage, and distribution of essential drugs for Zambia's public health sector. The Ministry of Health owns 2% and the Ministry of Finance owns 98% of ZAMMSA, both of which have delegated the responsibility for health supplies to public health facilities to ZAMMSA on behalf of the Ministry of Health. The primary goal of ZAMMSA is to ensure the nation receives high-quality drugs, medical equipment, and other supplies promptly and reliably. To fulfill its mandate, ZAMMSA has implemented the 'Last Mile' delivery approach to distribute supplies to various facilities. These facilities include regional hubs supported by the government located in Chipata (Eastern Province), Choma (Southern Province), Mongu (Western Province), and Ndola (Copperbelt Province). Commodities are sent from ZAMMSA's central warehouse in Lusaka to the regional hubs and the staging post (used to restock supply), from where they are distributed to local health facilities. This system aims to reduce the distance for Last Mile deliveries and enhance access to public health and medical products (IDC, 2017, as cited in Mwanaumo et al, 2023).

The challenge with commodities is highlighted by the International Federation of Gynecologists and Obstetricians who conducted a survey of healthcare facilities that they work with as part of the Self-Management of Abortion (SMA) Project. They indicated that 87% of them had no medical abortion drugs in stock. They further highlighted how pharmacists and supply chain managers are key players in ensuring that patients have access to the medications they need, so improving their skills on drug forecasting and quantification is crucial to prevent drug shortages and disruptions in patient care.

Supply Chain Structure:

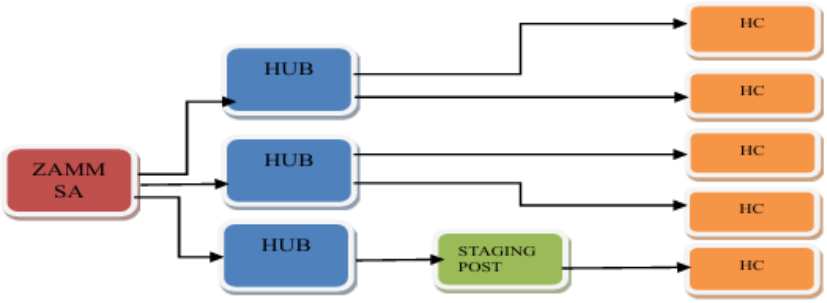

Fig 1: Structure of the supply chain Mwanaumo et al (2023)

Findings

The District Health Office utilizes a digital tool known as the Electronic Logistics Management Information Systems to plan and manage logistics for safe abortion supplies. This tool integrates historical data on these supplies to display trends, consumption rates, regional inventory levels, and target populations. It then generates purchase estimates for the upcoming six months, accounting for expiration dates and current inventory levels.

However, despite maintaining consistent effectiveness in general reproductive health supply purchases (in terms of pricing), there has been a significant decrease in the availability of safe abortion products. The logistics system, which manages the distribution of supplies from central and regional warehouses to health centers, is generally effective in tracking distribution and stock levels based on usage. Nevertheless, there is inadequate monitoring of safe abortion supply shortages, and expired commodities have been reported as received by some health centers over the past year. This suggests disorganization in the storage and dispatch of these supplies, with expiration dates often not being properly managed.

Clear procedures exist for inventory receipt, including verification of inventory status, lot revision, and expiration date checks using military standard sampling methods. Upon receipt, inventory is promptly recorded in the system and then appropriately stored, quarantined, or rejected based on its condition.

Health facilities lack information about patient adverse reactions or ineffectiveness related to safe abortion methods, indicating a weak feedback mechanism. Supply chain staff are chosen based on their logistics knowledge and expertise, with occasional training provided according to District Health Office schedules.

Detailed finding embedded can be found in the linked SCOD tool which was adapted for the purpose of this operational assessment.

Strengths and weaknesses of the safe abortion commodities supply chain based on SCOD method:

PROCESSES	Score
SELECTION AND PURCHASE	2.50
Distribution and reverse logistics	3.00
STORAGE	4.20
INVENTORY MANAGEMENT	2.50
INFORMATION SYSTEM AND DATA INTEGRATION	5.00
MANAGEMENT OF PENDING ITEMS AND SHORTAGE	2.50
DISTRIBUTION, ADMINISTRATION, AND SUPPLY MANAGEMENT	3.50
HUMAN TALENT	3.50
REGULATORY FRAMEWORK FOR SUPPLY CHAIN MANAGEMENT	4.00

Table 1: Analysis of the supply chain with regards to safe abortion commodities

Gap Analysis

Facility	Are safe abortion supplies readily available at your health facility?
Chainda	No
Chimwemwe	No
Kalingalinga	No
Kawama	No
Luwangwa	No
Mindolo 1	No
Ngombe	No
Chipata	Yes
Mtendere	Yes

Ndeke	Yes

Table 1: Facilities reporting readily available safe abortion commodities

As shown in the table above, six out of the ten facilities of implementation reported that safe abortion commodities are not delivered on time. Some facilities reported the delivery of Misoprostol and Mifepristone with very short expiry windows that would not allow for commodity usage. Some of the reasons attributed to the late delivery of commodities is the stock out at central level. Most facilities have highlighted that some officials along the supply chain are uncomfortable with procuring safe abortion commodities due to their values. Therefore, they sometimes have to wait until one without such withholding values is available to process the procurement request. This gap around the delivery of safe abortion commodities echoes the weakness highlighted with regards to the distribution and reverse logistics of safe abortion commodities.

It was also noted that there have been stock outs of safe abortion commodities at all 10 of the facilities in the past one year, which is still an issue as of the data collection for this report. This is evident in the recent numbers we have recorded with regards to the number of safe abortions conducted at facilities such as Kalingalinga, Kawama, Mindolo, and Ngombe who all recorded 0 abortions done in the month of March 2023.

This gap is reflective of the weakness found in the aspects of inventory management, and selection and purchase of safe abortion commodities. Since commodities are procured at central level, facilities are unable to go beyond informing the District Health Office of the need to procure safe abortion commodities.

During stockouts, facilities stated that they source from either other facilities which may have the commodities, or they lobby from stakeholders such as Marie Stopes Zambia and Planned Parenthood Association in Zambia. The biggest challenge with this is that the projects that used to supply these commodities are slowly being phased out as the number of facilities of implementation are slowly being reduced.

Recommendations

- To prevent running out of stock, facilities should begin ordering goods directly rather than relying on third-party services.
- Comprehensive abortion care (CAC) providers ought to collaborate closely with pharmacy personnel to improve coordination and efficiently manage drug supplies.
- CRZ should consider signing an MOU with organisations such as Marie Stopes to facilitate the supply of safe abortion commodities while CRZ continues to create awareness of the services.

ANNEX

1. **Data collection tools:**

Section I

Indicator Outputs	Responses			
modity Distribution				
g does it typically take for commodities to be l from the national warehouse to a facility?	Less than 1 month	1 month	2-3 months	more than 3 months
modities delivered on time and in good quality?		Yes	No	Don't know
e been any excess inventory at distribution the past year?		Yes	No	Don't know
ere been any stock outs points in the past year?		Yes	No	Don't know
ibution systems efficient and effective?		Yes	No	Don't know
a system in place to ensure last mile distribution nmodities?		Yes	No	Don't know
at system is in place?				
stem followed?		Yes	No	Don't know
he commodity distribution decided along the ain?				
exual reproductive health commodities stocked cility with reference to safe abortion ities.				

ply Chain System Evaluation				
pply chain system integrated from the national to vels?		Yes	No	Don't know
pinion, how efficiently do commodities flow e supply chain?	Score (1-5) 1-very Inefficient and 5 - Very efficient	1 2 3 4 5		
an official communication channel to facilitate the ion flow within the supply chain?		Yes	No	Don't know
abortion supplies specifically considered during anning?		Yes	No	Don't know
primarily responsible for reproductive health procurement?				
entory Management				
primarily responsible for reproductive health inventory management?				
have an inventory management system within the ain system?		Yes	No	Don't know
a system to track inventory records in an and timely manner?manner.		Yes	No	Don't know
e mechanisms in place to optimize inventory d prevent stockouts?		Yes	No	Don't know
hat mechanisms are in place?				

pinion, are inventory management systems and efficient?		Yes	No	Don't know
of information among stakeholders (community, istrict, etc) is clear and efficient. ee / 2-Neutral / 3-Agree hich applies		1	2	3
nology Utilization				
stem (software/paper based) are you using to ck orders?				
stem (software/paper based) are you using to stock of commodities and supplies?				
e any challenges or gaps in utilizing technology nd planning and order processing?		Yes	No	Don't know
have trained staff in using technology designed ly for supply chain management?		Yes	No	Don't know
umentation and Reporting				
a reporting system for tracking commodity usage k levels?		Yes	No	Don't know
stockout situations addressed, and is there a ncy plan?				

rds kept in an organized and secure manner?		Yes	No	Don't know
k levels regularly monitored and documented?		Yes	No	Don't know
odity storage				
re commodities such as mifepristone and stol stored at district level?				
age facilities adequate and secure?		Yes	No	Don't know
modities stored in a way that protects their ased on SOPs?		Yes	No	Don't know
ibility				
munity members able to access FP commodities nifepristone and misoprostol at the local r free?		Yes	No	Don't know
e they readily available?		Yes	No	Don't know
u experienced any barriers that affect the lity of FP commodities among adolescents?		Yes	No	Don't know
at are they? at apply: tation, Finance, Lack of Knowledge, Stigma, _____				

olicies surrounding Safe abortion enhance lity of health services and commodities?		Yes	No	Don't know
necks				
re been times when safe abortion commodities been available at district level in the past one		Yes	No	Don't know
what factor(s) contributed to the unavailability of tion commodities?				
level was the bottleneck?	National		Provincial	
re been any challenges with the supply of safe commodities from National to District level?	Yes		No	
at was/is the challenge?				