

## Final Report

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# Reproductive Health Commodity Supply Chain and Logistics Management Information System Assessment: Eastern Cape and KwaZulu Natal, South Africa

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Submitted to:  
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## Acronyms

CHC	community health centre
CHW	community health worker
DHIS	District Health Information System
DIO	District Information Officer
FEFO	first expiry first out
FIO	Facility Information Officer
HAST	HIV, AIDS, STIs and TB
HIV	human immunodeficiency virus
JSI	John Snow Inc.
KPI	key performance indicator
LMIS	logistics management information system
LSAT	Logistics Systems Assessment Tool
MEDSAS	Medical Supplier Administrative System
NDOH	National Department of Health
NSN	national stock number
NTO	non-traditional outlet
PDS	primary distribution site
PPSD	provincial pharmaceutical supply depot
RH	reproductive health
SITA	State Information Technology Agency
SDS	secondary distribution site
SRH	sexual and reproductive health
UNFPA	United Nations Populations Fund
USAID	U.S. Agency for International Development
WMS	warehouse management system

## Executive Summary

To assist the United Nations Populations Fund (UNFPA) South Africa country programme, which is providing technical support to strengthening sexual and reproductive health through support to policy and systems for quality service delivery; a commodity supply chain and logistics management information system (LMIS) assessment for condoms and other Reproductive Health commodities was carried out from October 5<sup>th</sup> to October 16<sup>th</sup> 2015. The assessment focused on eight districts: three (Alfred Nzo, Amathole & OR Tambo) in Eastern Cape and five (Ilembe, Ugu, Umkhanyakude, Uthukela, and Zululand) in KwaZulu Natal.

The objective of this assessment was to inform UNFPA and the South Africa National Department of Health (NDOH) and provincial departments of health (KZN and EC) if health facilities have uninterrupted supply of condoms, other contraceptives and lifesaving reproductive health medicines and to provide recommendations to best address the main issues found. Due to limited time it was not feasible for the team to visit all eight districts in KZN and EC. The team was able to visit facilities in Ilembe and Uthukela in KwaZulu Natal as well as facilities in Amathole and OR Tambo in the Eastern Cape.

To accomplish the objective, the team conducted key informant and partner interviews during the site visits. The team also conducted a workshop in each of the provinces and invited all districts to attend. This allowed the team to ensure inclusion of districts which could not be visited in the assessment.

Primarily qualitative data was collected to provide context and understand existing procedures and processes by focusing on five key supply chain technical areas: (1) Human Resources & Organization, (2) Procurement, (3) Storage & Warehousing, (4) Distribution & Transportation and (5) Inventory Management. This allowed the team to achieve a deeper understanding of the supply chain situation in these two Provinces in a short period of time.

### KwaZulu Natal

In KwaZulu Natal, the team was able to meet with the Provincial Health Office staff, visit primary health facility and a Primary Distribution Site (PDS) in Ilembe district. A community Health Clinic (CHC), Ideal Clinic, Hospital and PDS were assessed in Uthukela district. In addition, a workshop which included representatives from the remaining three districts, Ugu, Umkhanyakude, and Zululand was held. For the Condom and other reproductive health (RH) Commodity Supply Chain in the five targeted districts the findings and challenges were as below:

#### 1. Human Resources & Organization

- Dedicated RH staffs are present at the district level, but there are no dedicated staff for condom management.

## 2. Procurement

- Condoms are procured by the Supply Chain Management Department at the Provincial Health Office. The condom procurements are done via national contracts with selected condom suppliers, which seem to be creating challenges with provincial procurements, since suppliers are not always responsive due to the location of some of the districts. In addition, suppliers are not always able to deliver full condom orders.
- The Provincial Pharmaceutical Supply Depot (PPSD) procures most of the other RH commodities, which are either on national or provincial contract without major challenges. RH supplies are usually purchased by hospitals and facilities, which affects reliable pricing and consistent availability.

## 3. Storage & Warehousing

- Condoms are initially either stored at designated PDS located within the districts, or at the PPSD. Storage at the health facilities, or Secondary Distribution Sites (SDS), varies from separate store rooms dedicated to condoms, to store rooms combined with the other pharmaceutical supplies. On average, storage conditions were found to be adequate and adhered to best practice recommendations such as being stored off the ground and in a cool room without direct sunlight<sup>1</sup>. However, space constraints were observed at a few of the sites due to bulky condom packaging.

## 4. Distribution & Transportation

- For condoms, suppliers are requested to deliver directly to the PDS in the district and the PPSD in Durban. PPSD delivers condoms to health facilities once a month, via a hired courier. If facilities need more condoms than what PPSD deliver, they use their own vehicles to pick up condoms from the PDS.
- The PPSD in Durban delivers all pharmaceuticals, including RH commodities, once a month via hired courier.

## 5. Inventory Management

- Bin cards and stock cards are used to manage condom inventory at PDS and facilities. No electronic system is used.
- For RH commodities, Medical Supplier Administrative System (MEDSAS) is used within the PPSD for all products. Bin cards and stock cards are used at the health facilities. Some hospitals have computer based stock management systems.
- Consumption for condoms and other RH commodities is reported from hospitals and clinics by Data Capturers to the sub-district Facility Information Officer (FIO). The FIO then aggregates the data from their sub-district and sends it to the District Information Officer (DIO) to input into the national level District Health Information System (DHIS).

## Eastern Cape

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<sup>1</sup> John Snow, Inc./DELIVER in collaboration with the World Health Organization. Guidelines for the Storage of Essential Medicines and Other Health Commodities. 2003. Arlington, Va.: for the U.S. Agency for International Development

In Eastern Cape province, the team was able to meet with the Provincial Health office, the PPSD in Mthata and Port Elizabeth, two CHCs in OR Tambo district and a PDS and hospital in Amathole district. In addition, a workshop was held in East London, which included representatives from the remaining district, Alfred Nzo. For the Condoms and other RH Commodity Supply Chain in the three target districts the findings and challenges were as follows:

### **1. Human Resources & Organization**

- Dedicated condom management (Condom Coordinator) are present at the district level.
- Dedicated RH staff are present at the district level.

### **2. Procurement**

- Condoms are procured by the Supply Chain Management Department at the Provincial Health Office. Condoms are on national contracts with selected condom suppliers, but only one supplier is willing to deliver to Eastern Cape. This presents an issue when the supplier runs out of stock or is not responsive, which has happened in the past.
- As in KwaZulu Natal, the PPSD in Port Elizabeth and Mthata procure most other RH commodities which are either on national or provincial contracts without many challenges. RH commodities and supplies are usually purchased by hospitals and facilities, which affects reliable pricing and consistent availability.

### **3. Storage & Warehousing**

- Condoms are initially either stored at designated PDS located within the sub-districts or at the PPSD in Mthata for certain sub-districts. The Port Elizabeth PPSD does not store condoms due to lack of space. Storage at the Mthata PPSD is adequate, with pallets available to store boxes up off the ground and a cool room without direct sun exposure.
- Health facilities or SDS storage facilities varies from separate store rooms dedicated to condoms, to store rooms combined with the other pharmaceutical supplies. Space constraints were noted at a few of the sites due to bulky condom packaging.

### **4. Distribution & Transportation**

- For condoms, suppliers are requested to deliver directly to the PDS in the sub-district and the PPSD in Mthata. To further distribute condoms down to clinics, Condom Coordinators pick up the boxes and deliver them to the health facilities themselves, usually in their personal vehicle. At the clinics, condoms are distributed to CHWs during outreach programs.
- The PPSD in Port Elizabeth and Mthata delivers all pharmaceuticals including RH commodities once a month via hired courier.

### **5. Inventory Management**

- Bin cards and stock cards are used to manage condom inventory at PDS and facilities. No electronic system is used.
- For RH commodities, the eLMIS MEDSAS is used within the PPSD for all products. Bin cards and stock cards are used at the facilities.
- Consumption for condoms and other RH commodities is reported from hospitals and clinics by their Data Capturers to the sub-district Facility Information Officer (FIO). The



FIO then aggregates the data from their sub-district and sends it to the District Information Officer (DIO) to input into the national level District Health Information System (DHIS).

### Data Analysis of PPSD in KwaZulu Natal (Durban) and Eastern Cape (Port Elizabeth and Mthatha)

In addition, a desk based analysis of the eLMIS that the PPSD are currently using, the Medical Supplier Administrative System (MEDSAS), was conducted by pulling National Stock Numbers from the National Health Contract, "HP03-2013FP: Supply and Delivery of Family Planning Agents to the Department of Health" for the Period 01 October 2013 to 30 September 2015. Where RH commodity data could be analyzed using the provincial MEDSAS system, some idea of current ability of the provinces to supply the target districts with RH commodities has been established. This can be summarized as:

- *Durban Depot:* Demand fulfillment for Durban is at 97% even though average stock availability is at 83%. Twelve RH items (Table 20 below) plus male condoms were found to be carried at the PPSD through the MEDSAS system.
- *Port Elizabeth Depot:* Demand fulfillment for PE is at 99% with average stock availability at 96%. Twelve RH items plus male condoms were found to be carried at the PPSD through the MEDSAS system.
- *Mthatha Depot:* Demand fulfillment for Mthatha is at 96% even though average stock availability is at 80%. Twelve RH items plus male condoms were found to be carried at the PPSD through the MEDSAS system.

Data analysis summary - MEDSAS

	Average demand fulfillment	Average stock availability	Number of RH items with "no-stock" on hand in January 2016	Number of RH items with "less than 1 months" stock on hand in January 2016	Number of RH items "over" stock on hand in January 2016
Port Elizabeth Depot	99%	96%	0 out of 4 items	3 out of 4 items	0 out of 4 items
Mthatha Depot	96%	80%	3 out of 6 items	2 out of 6 items	1 out of 6 items
Durban Depot	97%	83%	7 out of 12 items	3 out of 12 items	2 out of 12 items

Demand fulfillment is on target for all depots. This indicates that all depots are supplying health facilities and clinics with RH contraceptive quantities they demand. However this demand is not always filled on time since in order to deliver on time to health facilities and clinics, the depots require availability to be at least at 95%. Only the PE depot was found to have stock availability above 95%.

The "current" no-stock items are an issue for both Durban and Mthatha depots. All depots also have stock below one month average demand, with a large number of supplier deliveries due to the depots. The stock on hand situation could be explained by the timing of when this report was run. The report was run by SITA on MEDSAS in the first week of January 2016. This is traditionally the lowest stock month of the year, as companies have been shut down for the December holidays and will only resume deliveries in the second week of January.

None of the PPSDs are carrying all 14 of the RH commodities, which are on the National Contract (see Annex F).

## **Recommendations**

### ***Condom Supply Chain***

#### Short-Term

- 1) It is recommended that existing SOPs be revised. Several processes have been devolved to provincial level and revisions to the existing business processes need to be reflected. Updating the SOP document and training staff down to the facility level will enforce and clearly establish the responsibilities of facility staff and supervisors. This includes ensuring bin cards and stock cards are filled out accurately and in a timely manner and information is shared regularly from the facility level upwards.
- 2) In conjunction with updating the SOPs, a decision should be made on how to best handle and how to capture the distribution of condoms to the NTOs. Currently NTOs are not able to be listed as a “site” in the DHIS and therefore many times their consumption is not recorded and missing from the data.

#### Long-Term

- 3) Integrate the condom supply chain with the PPSD managed supply chain. This will help with two issues the condom program is currently facing:
  - a. Storage and Transportation
  - b. Lack of eLMIS

### ***Other RH Products & Supplies Supply Chain***

#### Short-Term

- 1) While the RH supply chain seems to run well as a whole, overstocking of IUDs and Implants was noted by many of the staff the team interviewed and supported by the site visits. The issue appeared to be mostly with Implanon, which was observed in the facilities and PPSD in Mthata.
- 2) Conduct further analysis to understand why not all RH commodities are visible in MEDSAS as carried at all three of the PPSD the assessment team covered through the data analysis.

#### Long-Term

- 3) Ensure all other RH products and supplies are on a negotiated national or at least provincial contract for PPSD to procure. This will ease the process and cost of procurement and help guarantee delivery of the correct right quantities.
- 4) For RH supplies, if PPSD is not currently procuring, ensure there are SOPs developed to define a process for facilities to follow when procuring these supplies.

### ***National Level***

- 1) Re-assess the current national condom suppliers on contract to determine if they are best located to support all provinces and districts. Consider having dedicated suppliers for provinces based on location rather than requiring all suppliers to deliver to all provinces.

- 2) Address the NSN duplication identified in MEDSAS. In order to be able to accurately and effectively analyze data on commodities the PPSD handle, it is important that NSN are not switched. A thorough evaluation of the current data should be conducted with strict process controls on NSN usage put in place to ensure future analysis can be completed with ease.

## Introduction

A recent rapid assessment of the condom supply chain and logistics management information system (LMIS) conducted in March 2015 in three provinces (Mpumalanga, Free State and Gauteng) identified a number of challenges, providing the visibility required to address these challenges and strengthening the supply chain. This assessment follows a series of actions previously financed by USAID and UNFPA and executed by JSI personnel namely:

- In depth assessments of the electronic LMIS and Condom Procurement and Distribution Process including User Requirement Specifications for a new LMIS 2007
- Rapid assessment of Condom Stock situation and distribution process 2009
- Drafting of 12 NDoH and 7 provincial condom supply chain SOPs (Annex A) 2010
- Training of trainers on Condom Supply Chain SOPs
- Re-training of 44 provincial Condom Supply Chain SOP users 2012

No similar assessments have been undertaken recently in KwaZulu Natal and Eastern Cape provinces to understand the current status (successes, challenges and opportunities) of the reproductive health commodities supply chain and LMIS. To assist the United Nations Populations Fund (UNFPA) and its current country programme, which is providing technical support to strengthening sexual and reproductive health through support to policy and systems for quality service delivery, a condom and other Reproductive Health commodity supply chain and LMIS assessment was conducted from October 5<sup>th</sup> to October 16<sup>th</sup> 2015, with a focus on eight districts: three (Alfred Nzo, Amathole & OR Tambo) in Eastern Cape and five (Ilembe, Ugu, Umkhanyakude, Uthukela, and Zululand) in KwaZulu Natal.

## Objective

The objective of this assessment was to inform UNFPA and the South Africa National Department of Health (NDOH) and provincial departments of health if health facilities have uninterrupted supply of condoms, other contraceptives and lifesaving reproductive health medicines. To accomplish this, the team assessed the functionality of the condom and other reproductive health commodities supply chain and LMIS, including identifying areas of success, current opportunities, operational and strategic bottlenecks/challenges, and proposed feasible actions to improve the availability of reproductive health commodities including condoms. Where continuous supply did not exist, the breakdowns in the distribution and ordering systems were investigated and assessed. Empirical information about the health facility storage conditions and distribution system was also gathered.

## Inception Meeting

On August 21<sup>st</sup>, UNFPA, joined by key stakeholders from NDOH and member of the JSI assessment team (see table below), led an Inception Meeting to kick-off the condom and other RH commodity supply chain and LMIS assessment activity.

**Table 1: Participants at Inception Meeting**

Organization & Title	Name
<i>NDOH, HIV Prevention Cluster</i>	<i>Moeketsi Motsepe</i>
<i>NDOH, HIV Prevention Cluster</i>	<i>Itumeleng Kgomanyane</i>
<i>NDOH, Maternal and Women's Health Cluster</i>	<i>Mogalagadi Makua</i>
<i>UNFPA, Program Officer - Eastern Cape</i>	<i>Siziwe Jjongizulu</i>
<i>UNFPA, Program Officer -Pretoria</i>	<i>Lebogang Schultz</i>
<i>UNFPA, Technical Specialist SRH&amp;HIV integration - Pretoria</i>	<i>Leonard Kamugisha</i>
<i>JSI, Deputy Director, Health Logistics</i>	<i>Carmit Keddem</i>
<i>JSI, Program Coordinator</i>	<i>Bethany Saad</i>
<i>JSI, Technical Advisor</i>	<i>Julia Bem</i>
<i>JSI, Contracts Manager - South Africa</i>	<i>Tony Odendaal</i>

The inception call clarified that there were two separate supply chains, one for condoms and the other for RH commodities. The assessment covered both supply chains. A list of the products included in the assessment can be found in Annex B.

At each level – national, provincial and district – the assessment team conducted key informant interviews. At the provincial level, main storage sites for both condoms and RH commodities were visited. One of the recommendations from the inception call was to visit clinics following the “Ideal Clinic” model. It should be noted only one Ideal Clinic was able to be scheduled and visited during the assessment period. At the district level, due to the large distances between districts, it was agreed that 1-2 districts will be visited in each province, with an emphasis on visiting at least one rural district. In order to ensure data from all 5 districts in KwaZulu Natal and three districts in Eastern Cape were captured, a workshop in each province was organized to bring together representatives from each district to a central location.

## Methodology

The condom and RH commodity supply chain and logistics management information system assessment was conducted from October 5th to October 16<sup>th</sup> 2015, with a focus on two provinces and eight districts. The first province, KwaZulu Natal, the Ilembe, Ugu, Umkhanyakude, Uthukela, and Zululand districts were assessed. And in the second province, Eastern Cape, the Alfred Nzo, Amathole & OR Tambo district were assessed.

Two distinct supply chains were assessed during the technical assistance, one for the condom program as well as one for the RH commodities. As part of the methodology, the team conducted key informant and partner interviews, workshops, and site visits to understand the structure, bottlenecks and challenges of each supply chain. To achieve a deeper understanding of the supply chain these two Provinces within a short time, qualitative data was collected through key informant interviews. .

## Key informant interviews

At the national and provincial level, key partners and personnel were interviewed to provide information on five key components across the condom program and RH commodity supply chain: organization and human resources, procurement, storage and warehousing, transportation and distribution, and LMIS. An adapted version of JSI's Logistics Systems Assessment Tool (LSAT) was used to help guide the interviews<sup>2</sup>. Please see Annex C for the LSAT questionnaire used.

## Selected site visits

To validate the qualitative information collected through the stakeholder workshops, field visits to health facilities in four of the eight districts were conducted. . These included the two provincial health offices, four clinics/community health centers, one ideal clinic, two hospitals, three PDS, and two PPSD. For the condom supply chain, hospitals and clinics which distribute condoms are also referred to as Secondary Distribution Sites (SDS). Although not a representative sample by any means, these visits confirmed the types of tools and approaches used for information management at health facilities and key storage points in these districts. In addition, where available, bin cards and stock cards were reviewed to assess their accurateness as well as the current stock status.

## District assessment workshops

The team, in coordination with UNFPA and DOH counterparts facilitated one-day district assessment workshops in both Eastern Cape and KwaZulu Natal Provinces. Due to the limited time and unfeasibility of visiting all eight districts, personnel from each province were invited to attend a workshop on October 9<sup>th</sup>, 2015 in Durban, for KwaZulu Natal and October 14<sup>th</sup>, 2015 in East London for Eastern Cape. The intent of each of the workshop was to have participation from health facility, district and provincial level staff to understand the issues at each of these levels *and* the connections between staff at different levels along the end-to-end supply chain. However, the actual participants at the workshop largely ended up representing the RH program and facility staff workers. Others working directly on supply chain issues were not well represented. The workshops utilized a questionnaire (Annex D) targeted at each supply chain, condom & RH; to better understand the current state of the supply chain in the targeted districts. After completing an anonymous completing questionnaire, a participatory assessment approach through group discussions was utilized to engage stakeholders to identify the strengths, weaknesses and opportunities for improvement in each of the key supply chain dimensions. A compiled version of all responses received from the workshops for KwaZulu Natal is located in Annex H and for Eastern Cape in Annex I. Responses and feedback from the workshops are incorporated in the report.

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<sup>2</sup> USAID | DELIVER PROJECT, Task Order 1. 2009. *Logistics System Assessment Tool (LSAT)*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

**Desk-based analysis**

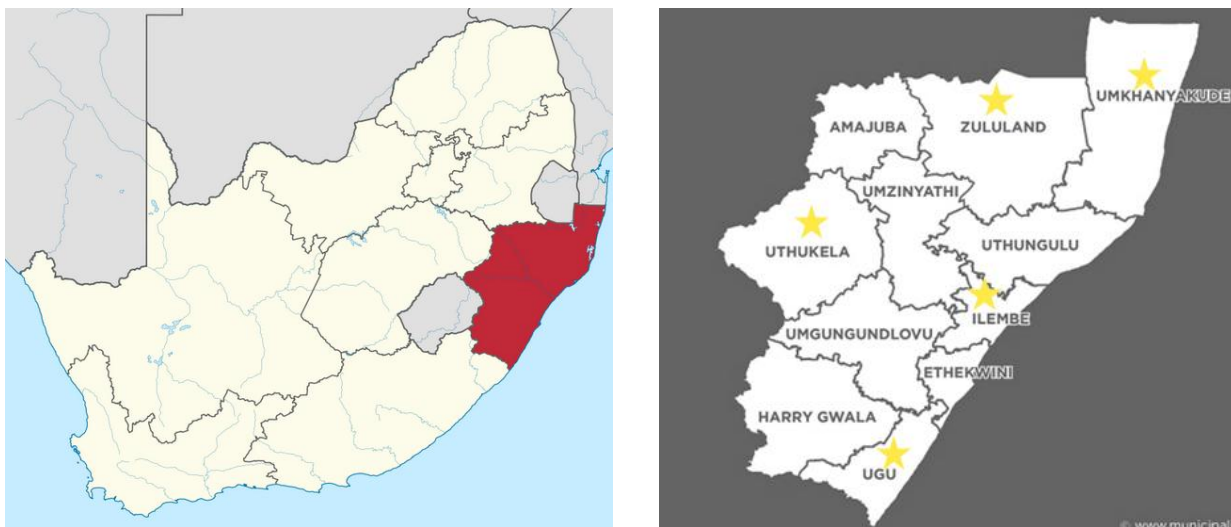
To further evaluate the LMIS, quantitative data from the depot's MEDSAS system was collected to provide a snapshot of performance and evaluate the effectiveness of the LMIS. For commodities where the data was available electronically, the team conducted a desk-based analysis to review key metrics and indicators of the supply chain. . These key indicators included demanded quantity, demand fulfillment, and stock availability. For commodities with a paper-based system, an on-site evaluation was done at the provincial, district and facility level to assess adherence and effectiveness of the LMIS.

## KwaZulu Natal Province

### Overview

While KwaZulu Natal Province is the country's third-smallest province, it has the second-largest population of approximately 10.3-million people (South Africa Census 2011). The capital of KwaZulu Natal and government seat is in Pietermaritzburg, with Durban being its largest city and site of their Provincial Pharmaceutical Supply Depot (PPSD). Table 2 below lists the sites visited and well as the schedule the team adhered to. Since visiting every district included in the assessment was not possible due to time limitations, only facilities in Ilembe and Uthukela were visited. The Provincial Health Office, two condom PDS, two hospitals, an Ideal Clinic and two other clinics were assessed. A workshop was held with participants from all five districts; Ilembe, Ugu, Umkhanyakude, Uthukela, and Zululand, to verify data which was collected and obtain feedback data from districts that could not be visited. While the workshop generated similar data observed during the site visits in Ilembe and Uthukela, it was difficult to judge the veracity of the answers given by participants in Ugu, Umkhanyakude, and Zululand. Annex E contains a list of all participants who were in attendance at the workshop. It should be noted that the assessment team was unable to visit the PPSD in Mobeni since an invitation from the Director was not secured in time.

**Figure 1. Maps of KwaZulu Natal Province and Districts Included in Assessment**



**Table 2: KwaZulu Natal assessment schedule**

Tuesday October 6 <sup>th</sup>
Provincial Health Office: Pietermaritzberg
Ilembe District: Sundumbili Clinic
Ilembe District: Amatihulu Centre Primary Distribution Site



<b>Wednesday October 7<sup>th</sup></b>
Uthukela District: Primary Distribution Site
Uthukela District: Watersmeet Clinic (Ideal Clinic)
<b>Thursday October 8<sup>th</sup></b>
Uthukela District: Ladysmith Hospital
Uthukela District: St. Chad Community Health Center
<b>Friday October 9<sup>th</sup></b>
Condom & RH Workshop: Durban

## Condom Supply Chain

### *Findings*

#### *Organization and Human Resources*

Dedicated staffing for the Condom Program only exists at the Provincial level, with one Condom Coordinator present during the team's visit to the Provincial Health Office. At the district level HIV Coordinators are available to manage condoms, in addition to their other program duties.

At all sites visited, the team asked those who managed condoms at the hospitals and clinics and, whether SOPs to guide management of condoms were available. Some indicated that SOPs are available and others responded that they did not have any. None of the staff at any facilities visited had could provide nor access SOPs at the time of the visit.

#### *Procurement*

When the Provincial Health Department staff was asked to describe the procurement process for condoms, very little was known. It is believed that the Supply Chain Management department issues paper based Purchase Orders (POs) to the suppliers.. The Supply Chain Management department then processes the invoices and sends them back over to the HAST finance department. it was highlighted that suppliers are not always able to deliver full orders. In addition, not all condom suppliers which are on the national level contract are willing to fill accept their requests, since most are located far away from the province. They also noted that the exchange rate is an issue that sometimes makes procurement challenging.

#### *Storage & Warehousing*

There are three main storage sites for condoms in the districts visited in KwaZulu Natal: the PPSD in Durban, the Ilembe Primary Distribution Site (PDS) and the Uthukela PDS. . The team was able to visit both the Ilembe PDS and the Uthukela PDS, who store the buffer stock of

condoms for those districts. However, the team was not able to visit the PPSD in Durban. ~~Unfortunately the team was not able to visit the PPSD in Durban~~

As seen to the right in Figure 2, the Ilembe PDS condom storage area is in good condition. Boxes of condoms are stored up off the ground on pallets, the ceiling is insulated and there is A/C. A bin card was found with correct stock levels. Staff indicated and the team verified<sup>3</sup> that FEFO was practiced. These represent recommended best practices according to the World Health Organization and the USAID | DELIVER PROJECT<sup>3</sup>.

**Figure 2. Ilembe PDS Condom Storage**



At the Uthukela PDS, there were large amounts of condoms stored within multiple rooms of an office space-type facility. The space was well insulated although the A/C was not working well. Due to the cramped storage conditions with multiple rooms and manual bin card system, the team was unable to verify whether FEFO was used in practice.

At the workshop, participants from the districts felt that the amount of storage space was inadequate, especially at the SDS level. This, they stated, is requiring the SDS to have to travel to the PDS more frequently and usually at their own expense.

### **Transportation & Distribution**

In the KwaZulu Natal districts visited, the flow of condoms either originates from the supplier to PPSD in Durban, or supplier direct to the Ilembe PDS and the Uthukela PDS. During the workshop in Durban, participants from all districts discussed key issues they currently face with condom supplier deliveries. These issues included irregular delivery schedules resulting in unannounced and incomplete deliveries at the PDS.

The PPSD in Durban contracts a courier to deliver all pharmaceutical supplies, including small quantities of condoms, to all hospitals, clinics and Secondary Distribution Sites (SDS). At Ladysmith Hospital, PPSD delivers once a month, but will deliver more frequently if there are stock-outs. As described by the staff at the Sundumbili clinic in Ilembe, most often the SDS requires more stock than the PPSD deliveries provide so, they pick up quantities at any time, at the PDS, using their personal vehicles or other available transportation.

To get condoms down to non-traditional outlets (NTOs) such as taverns, tuck shops and restrooms, different mechanisms are employed. At some clinics, community health workers

<sup>3</sup> John Snow, Inc./DELIVER in collaboration with the World Health Organization. Guidelines for the Storage of Essential Medicines and Other Health Commodities. 2003. Arlington, Va.: for the U.S. Agency for International Development

(CHW) distribute condoms directly to clients through their outreach programs, as was witnessed at the Sundumbili clinic in Ilembe. In an effort to get more regular and district wide distribution to the NTOs, Uthukela District had contracted a private courier to deliver to all NTOs in the district. The district discontinued this practice after it received assistance from Society for Family Health (SFH), but their support is inconsistent, depending largely on whether they have priorities elsewhere.

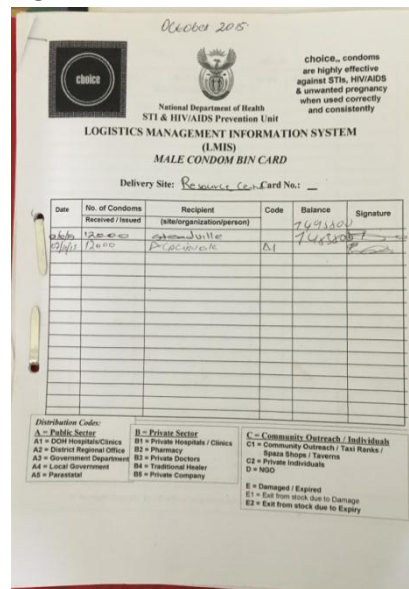
**Inventory Management**

In KwaZulu Natal Province, condom consumption is reported from hospitals and clinics by their Data Capturers to the sub-district Facility Information Officer (FIO). The FIO then aggregates the data from their sub-district and sends it to the District Information Officer (DIO) to input into the national level District Health Information System (DHIS). Data on distribution to NTO’s is not necessarily recorded separately as there are no facilities listed in the DHIS system for NTOs, when the District hires private vendors to distribute condoms, there is no way to track the distribution in DHIS. When clinics have CHWs distribute to NTOs, this distribution is counted as consumption against the clinic in DHIS. Again, there is no way to track distribution to a patient visiting the clinic versus condom distribution to NTOs. It should also be noted that when SFH or hired vendors distribute condoms to NTOs from the PDS, there is no mechanism to record this distribution or “consumption” in DHIS.

it was noted in the workshop and during site visits that hospitals and clinics use bin cards to manage receipts, issues and stock balances. While bin cards were seen to be used at almost all sites visited, their accuracy and use was not consistent. Many times the bin card quantities did not match the physical inventory bin quantities witnessed at the time of visit. Also, frequently staff admitted to not using the stock(bin) cards to determine their order quantities or replenishment requests. There seemed to be a general lack of attention to condom inventory management.

At the Ladysmith Hospital, the team observed a computer based LMIS named PlankMed being used for inventory management and internal transactions of all pharmaceutical products, including condoms, at the hospital. Stock cards are used in addition to PlankMed; these are kept for each product and are up to date. Remote Demanders Module (RDM) are also utilized to send orders electronically to PPSD to notify them of their requested quantities for the next delivery.

**Figure 3. LMIS Male Condom Bin Card**



The mobile phone Stock Visibility Solution (SVS) developed by Vodacom was not seen to be used to manage condoms at any sites. The team was informed it is only used for stock level reporting of ART, TB & Vaccines at the facility level.

At the workshop, some participants noted there had been cases of stock-outs in the last 12 months, especially with female condoms. During the assessment period the team did not observe any stock-outs at the district / PDS level. However the Ideal Clinic (Watersmeet clinic) was stocked out of condoms, most likely due to the observed lack of attention paid to condom inventory management, only being exacerbated by the absence of reliable transportation for condom delivery.

## **Conclusions**

### **Strengths**

Through the assessment in KwaZulu Natal the team observed a few best practices regarding the condom supply chain worth noting. They were:

- At many of the clinics condoms were given out in brown bags along with medication to increase patients comfort level and confidentiality.
- In Uthukela district, agents on contract were hired to distribute condom to NTO. Although these contracts have since expired, the practice of utilizing private vendors produced a reliable distribution mechanism to the outlets known to consume the most condoms.
- KwaZulu Natal is utilizing the PPSD for condom storage and distribution. The assessment team notes that integrating condom distribution with the pharmaceutical distribution is a good practice, both from a management and cost efficiency perspective.

### **Challenges**

- Condom inventory management is quite poor with little to no training. No facilities were able to produce a SOP when asked. (see list of existing SOPs in Annex A)
- Suppliers are delivering on an irregular schedule, arriving at PDS without warning.
- Suppliers are not delivering complete orders.
- NTO distribution data is not always captured in the DHIS.
- Storage space is limited causing the need for hospitals and facilities to frequently pick up condoms at the PDS.
- Transportation for distribution is ad hoc:
  - NTOs are no longer receiving a reliable and consistent distribution of condoms now that private vendors are no longer being contracted.
  - While the team feels allowing PPSD to manage the condoms is a best practice, based on the site visits and interview, quantities delivered from PPSD seem to be insufficient, forcing the clinics to utilize their own transportation to pick-up additional quantities from the PDS.

## Non-Condom Reproductive Health Commodities Supply Chain

### *Findings*

#### *Organization and Human Resources*

Dedicated staffing for the RH commodities exists at the provincial level and district levels usually within the Maternal and Child Health Program. At all sites the team asked those who managed RH products at the hospitals and clinics whether they had SOPs and if they were available. Some indicated that SOPs are available however; others responded that they did not have any. At no facility did someone have them on hand or had access to them. At the workshop, participants from the districts noted that monthly supervision visits were regularly conducted.

#### *Procurement*

Unlike condoms, PPSD, rather than the Supply Chain Management department, manages the procurement of all RH products (see Annex B for product list), most of which are on national or at least provincial contract. PPSD appears to be better equipped from a capacity perspective to handle procurements and seems to have been able to establish good relationships with their suppliers.

For surgical sundries, hospitals and larger clinics issue tenders and procure on their own. The Sundumbili Clinic procures and distributes surgical sundries to their 7 satellite clinics and 2 mobile clinics within their catchment area. St. Chad CHC also procures surgical supplies for their 9 satellite clinics. A few products were identified, such as plastic speculums and water for irrigation, that do not seem to have neither national nor provincial contracts in place, making quality, pricing and availability vary greatly across the province.

#### *Storage & Warehousing*

All RH products are stored at the PPSD in Durban. At the hospitals and clinics, RH products are stored with other pharmaceuticals. Depending on the type of facility, storage location and size but for the most part conditions were adequate. At the clinics visited, RH commodities were observed to be stored in pharmacy dispensaries organized on shelves with AC units.

#### *Transportation & Distribution*

All RH products are distributed by the PPSD contracted courier in Durban to hospitals and clinics once a month. Hospitals and Clinics are responsible for placing their orders on designated days of the month.

#### *Inventory Management*

In KwaZulu Natal Province, RH commodities consumption is reported from hospitals and clinics by their Data Capturers to the sub-district Facility Information Officer (FIO). The FIO then aggregates the data from their sub-district and sends it to the District Information Officer (DIO) to input into the national level District Health Information System (DHIS).

At the hospitals and clinics, bin cards are used to manage receipts, issues and stock balances. While bin cards were seen to be used at almost all sites visited, their accuracy and use was not consistent, however, they were better managed (on average) than the condom bin cards. This may be due to the fact that some of the clinics were moving towards using Pharmacy Assistants for stock management of all medical products. To determine re-order quantities, the average of two months of stock based on consumption was said to be used. In practice, the team observed a more ad hoc determination of re-order quantities, with facility staff ordering when visual inspection of quantity levels looked low.

At the Ladysmith Hospital, the team witnessed a computer based LMIS named PlankMed being used for inventory management and internal transactions of all products kept at the stores. Stock cards are used in addition to PlankMed and were seen by each product and kept up to date. They also utilize the Remote Demanders Module (RDM) to send orders electronically to PPSD to notify them of their requested quantities for the next delivery.

The mobile phone Stock Visibility Solution (SVS) developed by Vodacom was not seen to be used to manage stock levels of any RH products at any sites.

One of the biggest challenges mentioned by many of the RH staff was the lack of demand for many of the RH products, especially the Implants and IUDs. While stock-outs were not a common issue, overstock of Implants and IUDs were observed by the team.

### ***Findings - Ideal Clinic***

As a part of the assessment the team was asked to visit an Ideal Clinic. Ideal Clinics are those which have been identified to meet over 170 metrics to meet “ideal” status. An ideal clinic is a clinic with good infrastructure, adequate staff, adequate staff, adequate medicines and supplies, good administrative processes and sufficient bulk supplies that use applicable clinic policies, protocols, guidelines as well as partner and stakeholder support to ensure the provision of quality health services to the community. One of the components of developing and sustaining an ideal clinic is medicine, supplies and adequate laboratory services. The objective is to have over 3700 clinics with Ideal Clinic status. The team visited the Watersmeet Clinic in Uthukela District, which was identified as an Ideal Clinic. It is of concern that the clinic visited displayed very poor supply chain management with respect to condoms and RH products:

- The district condom coordinator was unfamiliar with the location of the clinic.
- Condoms (both male and female) were out of stock.
- The condom bin card was located after a search.
- RH stocks did not match the bin card totals.
- Bin cards reflected no supervisory signatures indicating no checks by clinic or district management.
- Transaction dates displayed unrealistic ‘last’ entries.

- The pharmacy store had an air conditioner but it reportedly had not worked for several months.

Overall the team did not find any best practices or significant differences between this Ideal Clinic and other clinics visited. Condoms were clearly not a priority within the clinic, as they were out of stock on the day of visit and the staff did not know where the condom bin card was located. As with other clinics visited, the RH products were better managed within the Pharmacy Store, but the bin cards were still inaccurate and not kept up-to-date.

## **Conclusions**

### **Strengths**

- KZN has started using Pharmacy Assistants for stock management of all medical products. Clinics that had Pharmacy Assistants managing stock had greater data quality on the bin cards and better overall management.
- Dedicated RH program staff is present at the district level make monthly supervision visits.

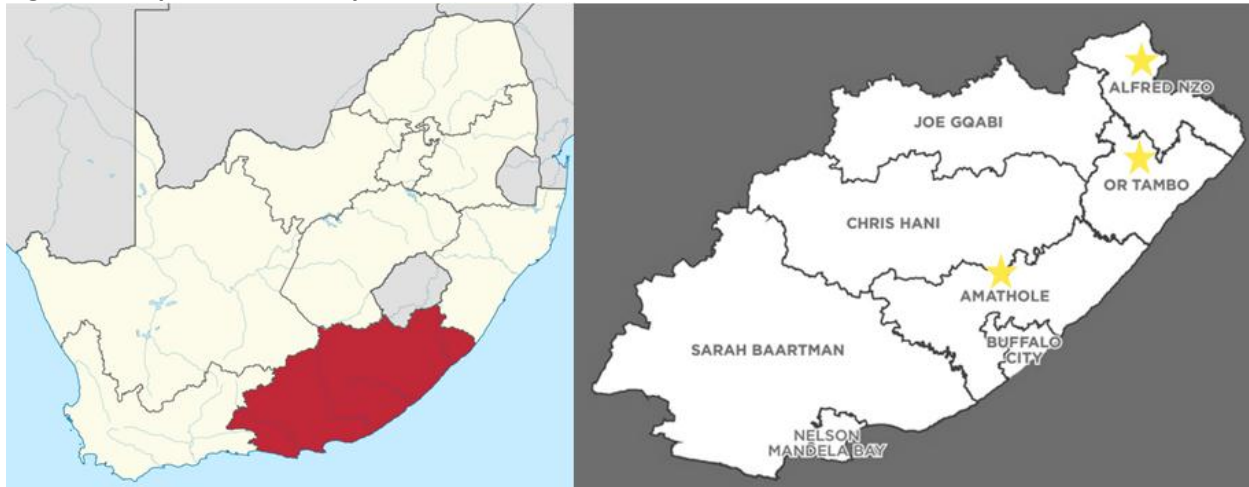
### **Challenges**

- Bin cards were not found to be up-to-date or accurate at all sites visited.
- No established process known to determine order quantity.
- Throughout the province there were overstocks of IUDs in health facilities. According to facility staff and RH program personnel this is largely due to lack of demand.
- Some surgical sundries are not on national or provincial contract, making procurement difficult, lengthy, and unreliable.

## **Eastern Cape Province**

### **Overview**

The Eastern Cape is the country's second-largest province after the Northern Cape, taking up almost 14% of South Africa's land area and with a population of around 6.5-million people (2011 South Africa Census). The capital of Eastern Cape is Bisho and its major cities include Port Elizabeth, East London, and Mthata. There are two PPSD operating in Port Elizabeth and Mthata, which were both visited. In addition, two CHCs, one PDS, and one hospital were visited. Unfortunately, scheduling a visit to another Ideal Clinic was requested, but not possible due to time constraints. Table 3 below lists the sites visited and well as the schedule the team followed. Since visiting every district included in the assessment was not possible due to time constraints. A workshop was held with participants from all two of the three districts: Alfred Nzo and Amathole. Alfred Nzo was the only district not visited, but as seen in Appendix B, the list of all participants who were in attendance at the workshop, Alfred Nzo was well represented.

**Figure 4. Maps of Eastern Cape Province and Districts Included in Assessment****Table 3: Eastern Cape assessment schedule**

<b>Monday October 12<sup>th</sup></b>
Mthatha Pharmaceutical Depot
OR Tambo District: Baziya Community Health Centre
OR Tambo District: Qunu Community Health Clinic
<b>Tuesday October 13<sup>th</sup></b>
Provincial Health Office, Bisho
Amathole District: Amahlathi Local Service Area for Health (PDS)
Amathole District: SS Gida Hospital & Gateway Clinic
<b>Wednesday October 14<sup>th</sup></b>
Condom & RH Workshop: East London
<b>Thursday October 15<sup>th</sup></b>
Port Elizabeth Pharmaceutical Depot



## Condom Supply Chain

### Findings

#### Organization and Human Resources

Dedicated staffing for the Condom Program exists at the Provincial level, with an Assistant Director for Condom Logistics. At the district level there are Condom Coordinators, who manage the condom program.

At all sites the team asked those who managed condoms at the hospitals and clinics whether they had SOPs and if they were available. Some indicated that SOPs available but others responded that they did not have any. None of the staff at any facilities visited could provide nor access SOPs at the time of the visit.

#### Procurement

All procurement of condoms is done through the Provincial Health office, through the Assistant Director for Condom Logistics. The biggest challenge identified in the Eastern Cape is that only one supplier from the national list of vendors could deliver to the province.

As the vendor is also supplying other provinces, sometimes they stockout and cannot deliver full orders. This supplier, identified as BARRS, has a warehouse located in Port Elizabeth, and therefore is located within the Province. All other suppliers have communicated that it is too expensive for them to deliver to Eastern Cape hence, they are reluctant to do so.

#### Storage & Warehousing

In Eastern Cape a government owned PDS is identified for every sub-district which stores condoms. The one PDS which was visited, the Amahlathi Local Service Area for Health, currently has its condoms being stored by the Mthata depot. The Mthata PPSD only stores condoms for certain sub-districts, as it does for Amahlathi. As can be seen in Figure 5, the Mthata PPSD's has ample storage space and keeps the boxes up off the ground on pallets. The Port Elizabeth PPSD does not handle condoms due to their lack of storage space.

**Figure 5. Condom Storage at the Mthata PPSD**



#### Transportation & Distribution

Suppliers are responsible for delivering directly to the identified PDS in every sub-district. To further distribute condoms down to clinics, Condom Coordinators pick up the boxes and deliver them themselves, usually in their personal vehicle. At the clinics, condoms are distributed to CHWs during outreach programs.

Other than limited distribution by SFH and CHWs, there is no organized distribution to NTOs.

### **Inventory Management**

In Eastern Cape Province, condom consumption is also reported from hospitals and clinics by their Data Capturers to the sub-district Facility Information Officer (FIO). The FIO then aggregates the data from their sub-district and sends it to the District Information Officer (DIO) to input into the District Health Information System (DHIS).

In addition, the Assistant Director for Condom Logistics at the Province collects stock level information from all PDS's and then aggregates the information. Other than the DHIS data, this is the only place where condom stock information at the district or provincial level can be seen.

At the hospitals and clinics, bin cards are used to manage receipts, issues and stock balances. While it was observed that bin cards were used at almost all sites visited, their accuracy and use was not consistent. The bin card quantities often did not match the physical inventory quantities witnessed at the time of visit. Also, frequently staff admitted to not using the stock cards to determine their order quantities or replenishment requests. There seemed to be a general lack of attention to condom inventory management. In many cases, when condoms bin cards were not managed by pharmacy assistants along with the other commodities in the facility, limited training on bin cards and expectations were observed to be the key barriers. As observed in KZN, the mobile phone Stock Visibility Solution (SVS) developed by Vodacom was not seen to be used to manage condoms at any sites. The team was informed it is only used for stock level information for ART, TB & Vaccines.

There were no major issues observed with stock-outs of male condoms by the assessment team. The Baziya CHC did mention they do not have any female condoms due to lack of funds.

## **Conclusions**

### **Strengths**

- There seems to be a higher emphasis and greater attention paid to condom management, most likely due to the dedicated condom staff located at the provincial and district levels.

### **Challenges**

- Only one condom supplier is willing to deliver to the Eastern Cape, and that supplier has difficulty making regular and complete deliveries. This greatly limits the procurement options for Eastern Cape.
- Condom inventory management at the PDS and SDS is quite poor with little to no training and no updated or distribution SOPs.
- The condom and RH supply chains operate separately requiring two separate management structures and operations for warehousing and distribution.
- Since SFH is not regarded as a "site" on DHIS, when they pick up condoms from PDS for distribution to NTOs their consumption is not recorded in DHIS.

## Non-Condom Reproductive Health Commodity Supply Chain

### Findings

#### Organization and Human Resources

Dedicated staffing for the RH program exists at the provincial level and district levels. At the district level a Maternal Child and Women's Health Coordinator is responsible for the RH commodities.

SOPs were not available at all the sites that were visited during the assessment.

#### Procurement

Both the Mthata and Port Elizabeth PPSD manage the procurement of RH products, which are all on national contract. For RH supplies, the vaginal speculum is not on national contract, hence the PPSD must go out and tender to local suppliers, which is usually more time consuming and expensive.

#### Storage & Warehousing

All RH products are stored at the Mthata and Port Elizabeth PPSD. The Port Elizabeth PPSD is a very large professional warehouse space, with security, cages around all commodities, pallet racking, pallet trucks and all appropriate equipment to run a full service warehouse operation. They utilize MEDSAS as their Warehouse Management System (WMS). The Mthata PPSD opened as a supplement to the Port Elizabeth PPSD, and is a smaller warehouse space in comparison. It is equipped with pallet racking and the proper equipment. Space seems to be ample, and they have an entire level which is currently empty. The floor needs some improvements though before it can be useable.

Figure 6. Mthata PPSD - Empty Floor



Figure 7. Baziya CHC Pharmacy Storeroom



At the hospitals and clinics, RH products are stored with other pharmaceuticals. Depending on the type of facility, storage space and conditions varied, but for the most health facilities the storage was adequate. Both Baziya and Qunu CHCs have small pharmacy storerooms where all stock is stored on shelving and air-conditioners were available. SS Gida Hospital & Gateway Clinic had a larger separate storage space and also pharmacy storeroom.

### **Transportation & Distribution**

All RH products are distributed by the Mthatha and Port Elizabeth PPSD to hospitals and clinics at least once a month. Clinics are responsible for placing their orders on designated days of the month. Bigger institutions, like hospitals, usually order once a week. The Port Elizabeth PPSD contracts out their transportation for distribution to a private vendor named Skynet.

### **Inventory Management**

Similarly, in Eastern Cape Province, RH consumption is reported from hospitals and clinics by their Data Capturers to the sub-district Facility Information Officer (FIO). The FIO then aggregates the data from their sub-district and sends it to the District Information Officer (DIO) to input into the District Health Information System (DHIS).

At the hospitals and clinics, bin cards are used to manage receipts, issues and stock balances. While bin cards were seen to be used at almost all sites visited, their accuracy and use was not consistent, but were better managed than condom bin cards.

At the Port Elizabeth and Mthatha PPSD, a computer based system called MEDSAS is being used to manage the RH inventory and generate orders.

The mobile phone Stock Visibility Solution (SVS) developed by Vodacom was not seen to be used to manage any RH products at any sites.

A challenge mentioned frequently by the hospitals and clinics was that when they place orders to PPSD they frequently did not receive everything they ordered. This seemed to especially be the case for the clinics within the Mthatha PPSD catchment area, who felt they rarely received a complete order, either receiving short quantities or not all products requested in the order. Investigation of this complaint revealed that in some cases facilities do not submit their demands in time for the scheduled 'route'. This results in an 'ad hoc' delivery having to be done.

A common complaint was that paracetamol tablets (not part of this assessment) were often out of stock – in one case for the previous six

**Figure 8. Plastic Vaginal Speculum**



months. It was also mentioned by most hospitals and clinics visited that all sizes of gloves are difficult to keep in stock. The Baziya CHC reported that they used to receive plastic speculums from the Mthata PPSD, but that they have also been out of stock for a long time. In addition, the Baziya CHC noted they do not stock IUDs because there is no demand.

### **Conclusions**

#### **Strengths**

Through the assessment in Eastern Cape the team observed a few best practices regarding the reproductive health supply chain worth noting. They were:

- Many in the Province are using the mobile application WhatsApp to coordinate stock levels peer to peer for RH products and other essential medicines.
- The PPSD's have fixed ordering dates and planned routes for product delivery, making delivery reliable and consistent, as long as facilities place orders on time.
- The PPSD in Port Elizabeth was very well run, with best practices in warehousing observed to be followed.

#### **Challenges**

- Inventory management processes are not well known or clearly defined.
- Throughout the province there are overstocks of IUDs, largely due to lack of demand.
- Some surgical sundries, such as plastic speculum, are not on national or provincial contract, making procurement difficult, lengthy and unreliable.

## LMIS Data Analysis

### Overview of IT System and Data Analysis

The data analysis is based on data received from the three provincial Depots Medical Supplier Administrative System known as the MEDSAS system. The MEDSAS eLMIS system is used in all three of the depots. MEDSAS system is operated by State Information Technology Agency (SITA), for Provincial Departments of Health that use this system. While the system is common to the three Depots that were analyzed, each Depot operates a totally independent version of the system, and the data in each depot is therefore independent.

The ability to fully assess the RH commodity supply chain performance across the different supply chains and target districts is very limited due to the Legacy or Manual LMIS being used by National and Provincial Health departments. This analysis is limited to RH commodities ordered through the provincial MEDSAS systems, which was the only system that provided data to the evaluation team.

The request for data reports from MEDSAS run by SITA were based on the National Stock Numbers (NSN) that were identified on the National Health Contract, "HP03-2013FP: Supply and Delivery of Family Planning Agents to the Department of Health for the Period 01 October 2013 to 30 September 2015". These NSN numbers received on this contract are detailed in Appendix F.

As detailed in the analysis below, not all contraceptives were carried at each depot. Where RH contraceptive data was available from the provincial MEDSAS system, the current ability of the provinces to supply the target districts with RH commodities was analyzed.

### Management summary of PPSD performance for RH commodities (MEDSAS)

Data analysis summary - MEDSAS

	Average demand fulfillment	Average stock availability	Number of RH items with "no-stock" on hand in January 2016	Number of RH items with "less than 1 months" stock on hand in January 2016	Number of RH items "over" stock on hand in January 2016
Port Elizabeth Depot	99%	96%	0 out of 4 items	3 out of 4 items	0 out of 4 items
Mthatha Depot	96%	80%	3 out of 6 items	2 out of 6 items	1 out of 6 items
Durban Depot	97%	83%	7 out of 12 items	3 out of 12 items	2 out of 12 items

Demand fulfillment is on target for all depots. This indicates that all depots are supplying health facilities and clinics with RH contraceptive quantities they demand. However this demand is not always filled on time since in order to deliver on time to health facilities and clinics, the depots require availability to be at least at 95%. Only the PE depot was found to have stock availability which is above 95%.

The "current" no-stock items are an issue for both Durban and Mthatha depots.

All depots also have stock below one month average demand, with large number of supplier deliveries due into the depots.

The stock on hand situation could be explained by the timing of when this report was run. The report was run by SITA on MEDSAS in the first week of January 2016. This is traditionally the lowest stock month of the year, as companies have been shut down for the December holidays and will only resume deliveries in the second week of January.

### Basic requirements for a Logistics Management Information system to function

When evaluating a Supply Chain performance, it is important to distinguish between the performance of the physical Logistics system and the performance of the Logistics Management Information System.

Where the Logistics information system is working, and can provide accurate data, it is possible to analyze the performance of the Logistics Supply Chain. Where there is no information, or the data is incomplete and/or inaccurate, it is very difficult to assess the actual *performance* of the Logistics Supply chain in any detail. It is difficult to manage any supply chain, in the absence of information, as the basic requirements of management are to Plan, Organize, Lead and Control<sup>4</sup>. In the Definitions of Management of Logistics, Planning, Implementing, and Controlling are the basic functions required.

Figure 9. International conference on Supply Chain Management<sup>5</sup>

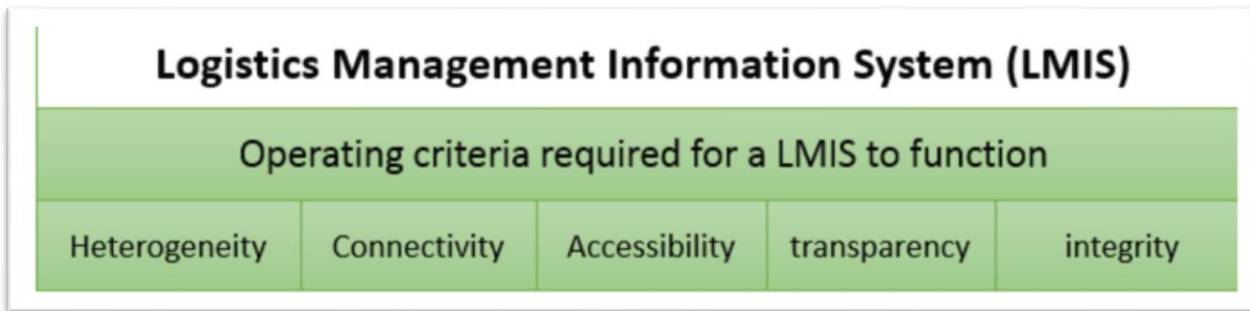


Therefore, for the Department of Health to manage the supply of RH Commodities, their management requires information systems to control performance. Specifically, control involves an active response to conditions, and agile reaction to changes in demand.

While the function of “control” might seem obvious, when supply chains are managed using Information Systems, which is the only way to manage a geographically dispersed National and Provincial Supply Chain, there are minimum criteria that any LMIS must meet. The operating criteria required for a LMIS to function are shown in Figure 10.

<sup>4</sup> Management Functions. Ref: Management Function & Strategy 2nd edition, Bateman, Zeithaml

<sup>5</sup> 17th international Logistics Conference Greece 2001. This conference addressed the issue of what makes an IT System a LMIS.

Figure 10. International conference on Supply Chain Management<sup>6</sup>

An LMIS is the only way the NDoH can monitor that Governments policies, procedures, and plans are being implemented in a standardized way, within the actual districts where the services are urgently required.

In order to have evaluated the complete RH commodity Supply Chain the two different Logistics Information systems described below needed to be evaluated. This analysis was limited in terms of only being able to assess those sections of the RH commodity Supply Chain where data was received from the MEDSAS system managed and utilized by the PPSDs.

1. Condom Supply Chain (Manual LMIS): No data received – The distribution of Male & Female condoms in the target districts could not be evaluated since all records are paper based.
2. Pharmaceutical RH items (Provincial IT LMIS system - MEDSAS): Data from all three Depots using the MEDSAS system to procure, stock, and distribute RH Commodities to health facilities and clinics was provided. Each depot operates a separate MEDSAS system; therefore the data has to be analyzed separately for each PPSD. (Data was requested for the 12 month evaluation period, June 2014 – May 2015).

### General Observations of the MEDSAS System

- From a National Health perspective, consistency across the different MEDSAS systems at the Depots is very low. A good example is that there is no unique code for health facilities in order to uniquely identify the facility that is demanding the RH commodities. In order to separate the total Depot demand from the demand from the target districts, many of the facilities had to be manually identified and allocated to the correct district.
- **Duplication of effort.** There is no sharing of common databases, and each data set is manually input and managed by each depot, even though the data sets are often the same.

<sup>6</sup> 17th international Logistics Conference Greece 2001. This conference addressed the issue of what makes an IT System a LMIS.



So while National Department of Health (NDoH) will have a unique vendor stock code for each supplier on National contract, each Depot will manually re-capture and maintain this data.

- **The MEDSAS database is a legacy structure.** So while the Provincial Health Departments manage facilities within districts, the MEDSAS system only identifies a facility as a demander to a central depot. There is no field for facilities to be linked to Districts. If reports are required for specific districts (as in the case of this analysis), then the data has to manually linked before a report can be generated regarding a specific district logistics performance
- **Limited Connectivity.** The MEDSAS system is not connected to all facilities within the region it serves. For example many small clinics send manual demand cards for RH commodities into the Depot, which only then capture the demand onto the system. This lack of connectivity (especially in rural districts) limits the responsiveness of the MEDSAS system. For example, if there is a stock out in a clinic, the MEDSAS system will not show that demand is needed until the manual demand card is sent by the district.
- **Accessibility of Logistics information.** The LMIS information is not very accessible from MEDSAS. There are no standardized reports that give NDoH Management common and timely logistics reports on RH commodity logistics performance. The information that is available is data sets received via SITA on request, and which require significant analysis and processing in order to obtain Logistics information. There is therefore a cost and a delay in obtaining logistics information. This delay in converting data to information results in information being out of date and of less value when managing the supply chain.
- **Limited Transparency** in terms of being able to evaluate the logistics supply chain at a glance. The data sets can be analyzed to get high level facts and performance at each depot (This is presented below in this report.) However, real time dashboards that enable management for example to identify stock levels dropping below minimum limits in real time, or non-compliance in terms of late delivery against contract lead times by a supplier when it happens, do not exist.
- The **integrity of any data** presented from the system can be questioned due to it being not complete or out of date. The large number of manual interfaces through which the data needs to be processed and transformed before becoming Logistics information, lend itself to data errors being included in reports without being identified.

Each of the above is an example of where the current MEDSAS system is not meeting the criteria of a good eLMIS system.

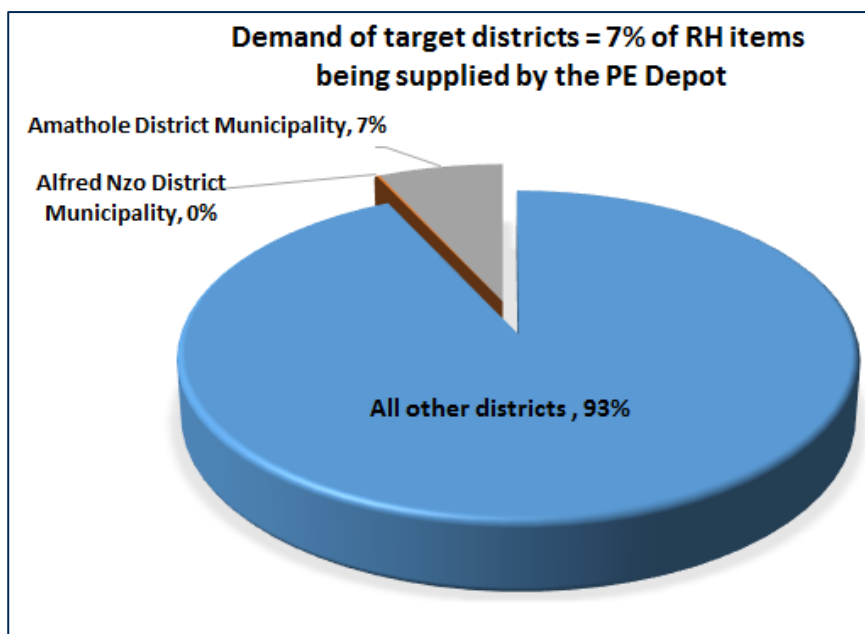
## Eastern Cape: Port Elizabeth PPSD (Provincial LMIS - MEDSAS)

### *Demand for RH commodities for target districts.*

The PE Depot is the central depot for the Amathole District. The PE depot appears to supply limited RH products to the Alfred Nzo District, but it never supplies the OR Tambo District. The target districts only account for 7% (Figure 11) of the total RH commodities placed on the PE Depot.

The Amathole District has 85 health facilities/clinics out of the 436 placing demand for RH commodities onto the Depot. The total number RH units demanded on the PE Depot is 384,485 for the period June 2014 to May 2015 (12 Months).

**Figure 11. Target districts demand on PE Depot**



Target District name	Demand Quantity	% of RH items Demanded
Alfred Nzo District Municipality	624	0.2%
Amathole District Municipality	26,371	6.9%
OR Tambo	-	0.0%
All other districts	357,490	93.0%
	<b>384,485</b>	<b>100.0%</b>

**Detail of all RH commodities placed onto PE Depot**

With the exception of Female condoms, % fulfillment (the percent of time a received order is filled) at the PE Depot is 100% of the demanded RH commodities to all Districts. Our understanding is that all condoms (Male & Female) are distributed through the eLMIS Condom supply chain. It would appear that Female condoms stopped being distributed through the PE Depot during the period under review.

**Table 4: Target Districts Percentage of demand and fulfillment (PE Depot)**

Mainframe NSN	Item description	All other districts / Target District name	Sum of demand quantity	Sum of issued quantity	% fulfillment	% of total demand on PE Depot
181792356	CONDOM FEMALE CONDOM;INDIVIDUALLY PACKED;LUBRICATED 100S	All other districts	5,830	3,023	52%	65%
181792356	CONDOM FEMALE CONDOM;INDIVIDUALLY PACKED;LUBRICATED 100S	Amathole District Municipality	3,179	1,035	33%	35%
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG& 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	All other districts	64,104	64,118	100%	91%
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG& 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	Alfred Nzo District Municipality	168	168	100%	0%
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG& 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	Amathole District Municipality	6,432	6,432	100%	9%
189703093	MICROVAL:LEVONORGESTREL TABLETS 0,03MG (28 ACTIVE TABS) NO PLACEBO TABLETS;MONOPHASIC-PROGESTOGEN ONLY(MINI PILL	All other districts	20,625	20,627	100%	94%
189703093	MICROVAL:LEVONORGESTREL TABLETS 0,03MG (28 ACTIVE TABS) NO PLACEBO TABLETS;MONOPHASIC-PROGESTOGEN ONLY(MINI PILL	Alfred Nzo District Municipality	132	132	100%	1%
189703093	MICROVAL:LEVONORGESTREL TABLETS 0,03MG (28 ACTIVE TABS) NO PLACEBO TABLETS;MONOPHASIC-PROGESTOGEN ONLY(MINI PILL	Amathole District Municipality	1,201	1,201	100%	5%
189705223	NORDETTE:LEVONORGESTREL&ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	All other districts	91,750	91,756	100%	95%
189705223	NORDETTE:LEVONORGESTREL&ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	Alfred Nzo District Municipality	132	132	100%	0%
189705223	NORDETTE:LEVONORGESTREL&ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	Amathole District Municipality	4,608	4,608	100%	5%
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	All other districts	175,181	175,187	100%	94%
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	Alfred Nzo District Municipality	192	192	100%	0%
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	Amathole District Municipality	10,951	10,951	100%	6%
			384,485	379,562		
			Average order fulfillment		99%	

Average order fulfillment for NSN items reviewed = **99%** (379,562 /384,485)

**Table 4: Analysis**

It can be seen that the level of demand fulfillment or % fulfillment is (100%), which is the same for the target districts as for all other districts supplied by the PE Depot.

**Table 4: Impact**

The PE Depot gives the same level of service to all districts it supplies.

**Assessment of PE Depot Logistics Management of RH Commodities**

The demand fulfillment, stock outs over the period analyzed, and current levels of stock on hand are key performance indicators of how a Depot is being managed. As already seen,

demand fulfillment is 100% for all commodities. The exception being Female condoms, which will be ignored for the evaluation of the RH commodities managed by the PE Depot.

Table 4 is summarized in Table 5 below:

**Table 5: Total demand fulfilled for RH products at PE Depot.**

Mainframe NSN	Item Description	Demand Quantity	Issue Quantity	% Demand fulfillment
181792356	CONDOM FEMALE CONDOM;INDIVIDUALLY PACKED;LUBRICATED 100S	9,009	4,058	45%
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG& 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	70,704	70,718	100%
189703093	MICROVAL:LEVONORGESTREL TABLETS 0,03MG (28 ACTIVE TABS) NO PLACEBO TABLETS;MONOPHASIC-PROGESTOGEN ONLY(MINI PILL	21,958	21,960	100%
189705223	NORDETTE:LEVONORGESTREL&ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	96,490	96,496	100%
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	186,324	186,330	100%
		384,485	379,562	
Average demand fulfillment				99%

While order fulfillment (Table 4 & 5) as a KPI can show us if demand has been supplied, it cannot show us if the demand was supplied when the demander requested it, or if the supplier supplied within contractual lead times. The report “number of days with zero stock” at a depot can however give us an indication of when health facilities could not be supplied on time. This KPI indicates number of days of stock outs of items, and from this we can calculate percentage availability for each product. Stock availability for PE Depot has been calculated and presented in table 7 below.

**Table 6: Zero stock and item availability at PE Depot**

RH items stock availability at PE Depot			
NSN	item_description	Days = 0 Stock	Availability over 12 months
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG& 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	12	97%
189703093	MICROVAL:LEVONORGESTREL TABLETS 0,03MG (28 ACTIVE TABS) NO PLACEBO TABLETS;MONOPHASIC-PROGESTOGEN ONLY(MINI PILL	19	95%
189705223	NORDETTE:LEVONORGESTREL&ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	29	92%
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	5	99%

**Table 6: Analysis**

The number of days that the PE Depot experienced stock-outs over the 12 month evaluated period (Table 5) is very low, therefore resulting in all National Health Contract HP03-2013FP (See Annex G) commodities being available more than 91% of the time. This reflects those re-order points and order quantity amounts are being managed correctly by the PE Depot. Furthermore, contracted suppliers on National contract were generally supplying within the required lead times over this period. The supplier lead time for the HP03 contract for is 13 or 14 days (refer to Annex C), but lead times are specific to each product for each supplier.

**Table 6: Impact**

To ensure availability of medicine to health facilities Depots need to set Stock availability targets for Essential Drugs List (EDL) at 95%, and for non-EDL items at 90%. The RH commodities at the PE depot exceed the 90% requirement as they have availability between 92 – 99%. Health care facilities supplied by the PE depot therefore should not run out of any of these RH commodities, as long as they place their own replenishment demand onto the depot within the required time.

The following table analysis how the PE Depot is managing their stock levels and order quantities to maintain stock within policy.

**Table 7: Current stock situation at PE Depot**

RH items monthly average demand, current stock levels and deliveries due, at PE Depot

NSN	Item Description	Average Monthly Demand	Current number of months stock on hand	Current number of months (Stock + Dues in)	Current Stock situation
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG& 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	5,892	0.85	2.37	Stk levels < 1 month Average
189703093	MICROVAL:LEVONORGESTREL TABLETS 0,03MG (28 ACTIVE TABS) NO PLACEBO TABLETS;MONOPHASIC-PROGESTOGEN ONLY(MINI PILL	1,830	2.04	2.04	OK = 2 months stk on hand
189705223	NORDETTE:LEVONORGESTREL&ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	8,041	0.76	2.22	Stk levels < 1 month Average
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	15,527	0.48	2.42	Stk levels < 1 month Average

**Table 7: Analysis**

The current stock on hand report shows less than one month stock on hand for three of the four RH commodities. As the quantity of “current stock on hand” plus “Purchase orders due in” remains above two month required stock, it clearly shows that the PE Depot is ordering the correct quantities to keep stock replenished. It would appear that PE depot policy is to hold two months stock for RH commodities.

**Table 7: Impact**

It would appear that availability of the RH commodities stocked by the PE Depot could drop going forward if the large quantities of dues in are not received by the PE Depot.

A possible reason for this could be contracted suppliers not needing to meet the 14 day required lead times, under the new HP03 2015 contract that was implemented on the 1st October 2015. The initial lead time from the date of award for HP03 is 75 calendar days. Only after this initial period, does the 14 day lead time comes into effect.

The following, Table 8, shows stock with no demand.

**Table 8: RH items at risk of expiry**

RH items at risk of expiry						
NSN	Item Description	Depot code	Open balance	Dues in total	Dues out total	item price
181901862	LEVONORGESTREL TABLETS 1.5MG;1'S	7900029	530	0	0	R 15.98
189710598	MEDROXYPROGESTERONE ACETATE INJECTION 150MG/ML;1ML;USE ONLY PETOGEN ON THIS NSN;1'S	7900029	19900	0	0	R 5.53
189750995	NORETHISTERONE ENANTATE INJECTION 200MG/ML;1ML	7900029	23000	0	0	R 11.00

Value of Stock on hand wich could expire

R 371,515.89

### Table 8: Analysis

The only issue of concern from the evaluation of the PE Depot data is stock on hand for three RH commodities which have had no demand over the 12 month period and therefore run the risk of expiry if not used. (Value = R371 000.00)

### Table 8: Impact

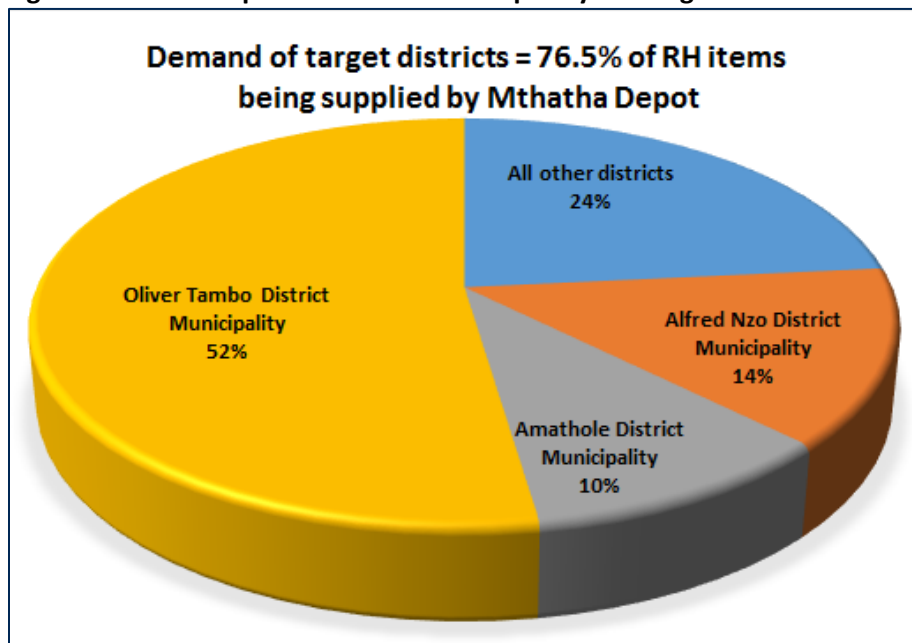
If the stock cannot be relocated to another depot which has demand for these items, it will expire. However, the expiry date needs to be established as other Depots will normally not want to take over short dated stock. If it was a once off incident then it will not repeat. If it is not, then there is a risk of this re-occurring in the future with other stocked items. This requires further investigation. But stock losses due to expired stock are inevitable when managing a provincial depot that carries thousands of stocked items. It would need to be established if the PE Depot managing stock loses within their annual allowance (as this is for all stocked items it falls outside of the data requested for the analysis).

## Eastern Cape: Mthatha PPSD (Provincial LMIS system - MEDSAS)

### *Demand for RH commodities for target districts.*

The three target districts in the Eastern Cape, account for 76.5% of the demand placed on the Mthatha Depot. These three districts represent 247 Health facilities/Clinics of the 415 placing demand for RH commodities onto the Mthatha Depot. This is the volume of total demand for RH commodities are for the period June 2014 to May 2015 (12 Months). The number of RH units demanded on the Mthatha Depot is 386,771.

**Figure 12. Demand placed on Mthatha Depot by the target districts**



Target District name	Demand quantity	% of RH items Demanded	
Alfred Nzo District Municipality	51,635	14.0%	<b>76.5%</b>
Amathole District Municipality	37,633	10.2%	
Oliver Tambo District Municipality	193,021	52.3%	
All other districts	86,482	23.5%	
	<b>368,771</b>	<b>100.0%</b>	

### **The allocation of Eastern Cape health facilities to the Depots**

- The Oliver Tambo District is supplied 100% by the Mthatha Depot.
- The Alfred Nzo District is supplied 99% by Mthatha Depot.
- The Amathole District is supplied by both Depots, 59% Mthatha & 41% PE Depot.
- The Amathole District has allocated one health facilities to only one of the Depots. The only exception being Butterworth Hospital who orders from both depots.

**Table 9: Total demand placed by target districts (Alfred Nzo, Amathole & Tambo)**

Eastern Cape: Combined demand for RH commodities

Target District name	Depot		Total		
	Port Elizabeth	Mthatha Depot			
Alfred Nzo District Municipality	624	51,635	52,259	309,284	41%
Amathole District Municipality	26,371	37,633	64,004		
Oliver Tambo District Municipality		193,021	193,021		
All other districts	357,490	86,482	443,972	443,972	59%
	384,485	368,771	753,256		
	51%	49%			

**Table 9: Analysis**

The Eastern Cape supply chain is therefore managed at Regional central depot level. Each facility/clinic would appear to be allocated to the nearest Depot. Health Districts are *not* used to allocate health facilities to Depots as is clearly seen in the case of Amathole district. When combing the total demand placed on both Depots, the three target districts represent 41% of all demand for RH commodities in the Eastern Cape Province.

**Table 9: Impact**

Health Districts are not used when allocating facilities to depots in the logistics system. Health facilities in the MEDSAS system are given a unique demander number in each depot. There is no field in the appropriate data base table in which to allocate a health facility to a district. It is therefore not possible to use any of the standard MEDSAS reports to obtain data filtered at health district level. Reports are either generated for the Depots total demand for a commodity, or at health facility/clinic level. In order to generate this report for the target districts, a large amount of time consuming data manipulation and manual allocation of facilities to districts was required. The impact of this limitation of the MEDSAS system is unknown as it depends on the level to which the Eastern Cape Province sets management targets at District level, compared to facility level or Depot level.

### ***Detail of all RH commodities placed onto Mthatha Depot***

The two districts represent over 75% of the RH commodity demand, and therefore the performance of the Mthatha Depot to supply these two districts can be seen as being representative of the depots performance in this region.



**Female Condoms****Table 10: Female Condoms**

NSN number	Item description	Target District name	Demand quantity	Issue quantity	% fulfillment	% of total demand on Mthatha Depot	
181792356	CONDOM FEMALE CONDOM; INDIVIDUALLY PACKED;LUBRICATED	All other districts	750	0	0%	11%	
181792356	CONDOM FEMALE CONDOM; INDIVIDUALLY PACKED;LUBRICATED	Alfred Nzo District Municipality	1510	0	0%	22%	89%
181792356	CONDOM FEMALE CONDOM; INDIVIDUALLY PACKED;LUBRICATED	Amathole District Municipality	4400	0	0%	64%	
181792356	CONDOM FEMALE CONDOM; INDIVIDUALLY PACKED;LUBRICATED	Oliver Tambo District Municipality	200	0	0%	3%	

**Table 10: Analysis** (Demand fulfillment = 0%; Current stock on hand = 0)

Female condoms were never distributed by the Depot during the period under review, even though facilities continued to place demand for this item onto the Depot.

**Table 10: Impact**

From the data it cannot be determined if this demand was supplied by the condom supply chain. If no other method was used to supply this demand of Female condoms, then this could be important findings as demand is not being supplied. This also supports the assessment team's finding of stock-outs of female condoms at the Baziya CHC.

**Intrauterine device****Table 11: Intrauterine device**

NSN number	Item description	Target District name	Demand quantity	Issue quantity	% fulfillment	% of total demand on Mthatha Depot	
180359299	INTRAUTERINE DEVICE, CONTRACEPTIVE MIRENA; T-SHAPED; W/ STERIOD RESERVOIR; PLASTIC; LEVONORGESTREL (LNG)-CONTAINING CYLINDER;	All other districts	5	5	100%	50%	
180359299	INTRAUTERINE DEVICE, CONTRACEPTIVE MIRENA; T-SHAPED; W/ STERIOD RESERVOIR; PLASTIC; LEVONORGESTREL (LNG)-CONTAINING CYLINDER;	Oliver Tambo District Municipality	5	5	100%	50%	50%

**Table 11: Analysis** (Demand fulfillment = 100%; Current stock on hand = 97 units)

Intrauterine Device usage is very low, only 10 units for all districts over the 12 months. The depot stock on hand is therefore excessive even though it is just 97 items.

**Table 11: Impact**

The question is, is it necessary to stock this item at the Mthatha depot with such low demand. If ordered separately it leads to uneconomic order quantities or alternatively to excessive stock levels as is the case in the Mthatha depot (see stock level report below).

**Implant Subdermal Contraceptive****Table 12: Implant Subdermal Contraceptive**

NSN number	Item description	Target District name	Demand quantity	Issue quantity	% fulfillment	% of total demand on Mthatha Depot	
181902529	IMPLANT SUBDERMAL CONTRACEPTIVE LEVONORGESTREL 75MG;W/ INSERTER;STERILE;RADIO-OPAQUE;2'S	All other districts	675	499	74%	14%	
181902529	IMPLANT SUBDERMAL CONTRACEPTIVE LEVONORGESTREL 75MG;W/ INSERTER;STERILE;RADIO-OPAQUE;2'S	Alfred Nzo District Municipality	2577	489	19%	53%	86%
181902529	IMPLANT SUBDERMAL CONTRACEPTIVE LEVONORGESTREL 75MG;W/ INSERTER;STERILE;RADIO-OPAQUE;2'S	Amathole District Municipality	365	365	100%	8%	
181902529	IMPLANT SUBDERMAL CONTRACEPTIVE LEVONORGESTREL 75MG;W/ INSERTER;STERILE;RADIO-OPAQUE;2'S	Oliver Tambo District Municipality	1236	904	73%	25%	

**Table 12: Analysis** (Order fulfillment = 47%; Current stock = 0)

The NSN item 181902529 (Levonorgestrel 75mg) shows demand of 4,853 items on the Mthatha demand report from MEDSAS, but when we run the Mthatha stock ledger report the stock balance = 0, due in = 0 and due out = 0. This cannot be correct. Upon further investigation, we identified that the new HP03 - 2015 contract is using the same NSN number for a different product NSN 181902529 is now "Etonogestrel 68 MG on the new contract, and we are not sure if this historic demand is for the Levonorgestrel or the Etonogestrel implants.

The low fulfillment of the Alfred Nzo district compared to the other two districts was analyzed separately. One hospital placed demand for 2,000 units in July 2014. This is obviously incorrect as it represents 70% of the total demand of this implant placed onto Mthatha. The status for this demand is "closed" even though the quantity remains in the demand volume. Therefore demand fulfillment for Alfred Nzo is 85%.

**Table 12: Impact**

The integrity of the data has become compromised, and it is difficult to determine, without further investigation as to which implant the data is representing. The incorrect data entry of 2,000 units that were not required by one facility in Alfred Nzo must also be corrected, as it is making the demand fulfillment appear to be much lower than it actually is. The possible impact of data entry errors are discussed below as this issue re-occurs with Ovral.

**Ovral Tablets****Table 13: OVRAL TABLETS**

NSN number	Item description	Target District name	Demand quantity	Issue quantity	% fulfillment	% of total demand on Mthatha Depot	
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG & 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	All other districts	26300	26200	100%	29%	
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG & 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	Alfred Nzo District Municipality	17900	17900	100%	20%	71%
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG & 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	Amathole District Municipality	12900	12900	100%	14%	
189702739	OVRAL:NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG & 0,05MG(21 WHITE TABS);7 RED PLACEBO BLISTER PACK 28'S	Oliver Tambo District Municipality	33100	33100	100%	37%	

**Table 13: Analysis** (Order fulfillment = 100%; Current stock = 6 000)

Ovral Tablets demand in target districts represents 71% of total demand for Mthatha. The Ovral demand for Oliver Tambo on the system is 133,100 which gave the fulfillment at only 25% for this district, which did not look correct as all other districts had 100% fulfillment. Further analysis of each health facility being supplied in this district, revealed incorrect demand data. It is not uncommon for health facilities to order more than they require. When this happens the depot often reduces the amount supplied. The original “incorrect” demand however remains on the system making it appear as if the depot is not fulfilling the order. Upon further analysis, one clinic was identified where a demand for 100,200 units was placed on the depot, when in fact they only required 200. This appears to be a data entry problem where demand for two items was accidentally entered into the system on a single demand line (Therefore Product A = 100, Ovral = 200, input as 100,200). Most clinics submit demand to the depot on a card system, as they do not have access to the MEDSAS system. The card is then captured onto the MEDSAS system at the depot on behalf of the clinic.

**Table 13: Impact**

This is a very good example of how data capture errors could create over supply issues. Without management intervention at the depot level, the incorrect quantity could have been issued, and large quantities purchased to replenish the stock, in turn resulting in unnecessary expenditure and possible wastage if not used by the product expiry date. Incorrect data entry is not specific to a system. But what is specific to MEDSAS is that incorrect demand quantities remain in the demand field and are never corrected. This can lead to incorrect assumptions on demand, when analyzing demand data on MEDSAS.

**Levonorgestrel Tablets****Table 14: Levonorgestrel Tablets**

NSN number	Item description	Target District name	Demand quantity	Issue quantity	% fulfillment	% of total demand on Mthatha Depot	
189703093	LEVONORGESTREL TABLETS: 0,03MG (28 ACTIVE TABLETS, NO PLACEBO TABLETS); (PROGESTOGEN-ONLY PILL); 28'S	All other districts	9000	8900	99%	35%	
189703093	LEVONORGESTREL TABLETS: 0,03MG (28 ACTIVE TABLETS, NO PLACEBO TABLETS); (PROGESTOGEN-ONLY PILL); 28'S	Alfred Nzo District Municipality	6900	6900	100%	27%	65%
189703093	LEVONORGESTREL TABLETS: 0,03MG (28 ACTIVE TABLETS, NO PLACEBO TABLETS); (PROGESTOGEN-ONLY PILL); 28'S	Amathole District Municipality	3300	3300	100%	13%	
189703093	LEVONORGESTREL TABLETS: 0,03MG (28 ACTIVE TABLETS, NO PLACEBO TABLETS); (PROGESTOGEN-ONLY PILL); 28'S	Oliver Tambo District Municipality	6200	6200	100%	24%	

**Table 14: Analysis** (Order fulfillment = 100%; Current stock = 0)

Levonogestrel tablets demand in target districts represents 65% of total demand for Mthatha Depot. Order fulfillment was 100%. Alfred Nzo once again had demand errors in the data making the fulfillment appear to be only 88%. Upon further analysis one clinic was identified placing excess demand on the depot. One demand for 1500 units and one demand for 1,000 units was reduced by the depot to 1,000 and 600 and the demands flagged in the system as closed.

**Table 14: Impact**

While the Ovral example appeared to be a data capture error creating higher demand than actual, Levonogestrel example appears to be a case of a clinic ordering more than they require. It is important to see that the Mthatha depot corrected this “over” order and closed the demand.

**Nordette Tablets****Table 15. Nordette Tablets**

NSN number	Item description	Target District name	Demand quantity	Issue quantity	% fulfillment	% of total demand on Mthatha Depot	
189705223	NORDETTE:LEVONORGESTREL & ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	All other districts	17652	17652	100%	33%	
189705223	NORDETTE:LEVONORGESTREL & ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	Alfred Nzo District Municipality	9048	9057	100%	17%	67%
189705223	NORDETTE:LEVONORGESTREL & ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	Amathole District Municipality	6768	6768	100%	13%	
189705223	NORDETTE:LEVONORGESTREL & ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG(21 ACTIVE TABS);7 RED PLACEBO TABS	Oliver Tambo District Municipality	19980	19980	100%	37%	

**Table 15: Analysis** (TABLETS: Order fulfillment = 100%; Current stock = 6 00)

Nordette Tablets demand in target districts represents 67% of total demand for Mthatha Depot. Order fulfillment was 100%.

### Table 15: Impact

The demand for Nordette tablets in the target districts is being supplied by the Depot.

### Triphasil Tablets

Table 16. Triphasil Tablets

NSN number	Item description	Target District name	Demand quantity	Issue quantity	% fulfillment	% of total demand on Mthatha Depot	
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	All other districts	32100	30800	96%	37%	
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	Alfred Nzo District Municipality	12800	12800	100%	15%	63%
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	Amathole District Municipality	9900	9900	100%	11%	
189707391	TRIPHASIL:LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG,30MCG(6);75MCG,40MCG(5);125MCG,30MCG(10)	Oliver Tambo District Municipality	32300	32296	100%	37%	

Table 16: Analysis (Order fulfillment = 99%, Current stock = 0)

Triphasil tablets demand in target districts represents 63% of total demand for Mthatha Depot. Average order fulfillment was 100% order fulfillment in target districts, while other districts supplied by Mthatha received 96% of demand.

### Table 16: Impact

The demand for Triphasil tablets in the target districts is being supplied by the Depot.

### Assessment of Mthatha Depot Logistics Management of RH Commodities

The demand fulfillment, stock-outs over the period analyzed, and current levels of stock on hand are key performance indicators of how a Depot is being managed. The Female condoms will be ignored for the evaluation of the RH commodities managed by the Mthatha Depot as was done with the PE Depot.

Table 17. Total demand fulfilled for RH products at Mthatha Depot over 12 month period

Total demand on Mthatha Depot for 12 month period (June 2014 to May 2015)

NSN Number	Item description	Sum of dem qty	Sum of iss qty	% Demand fulfilled
180359299	INTRAUTERINE DEVICE, CONTRACEPTIVE MIRENA; T-SHAPED; W/ STERIOD RESERVOIR; PLASTIC; LEVONORGESTREL (LNG)-CONTAINING CYLINDER;	10	10	100%
181902529	IMPLANT SUBDERMAL CONTRACEPTIVE LEVONORGESTREL 75MG; W/ INSERTER; STERILE; RADIO-OPAQUE; 2'S	2853	2257	79%
189702739	OVRAL: NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG & 0,05MG (21 WHITE TABS); 7 RED PLACEBO BLISTER PACK 28'S	90200	90100	100%
189703093	LEVONORGESTREL TABLETS: 0,03MG (28 ACTIVE TABLETS, NO PLACEBO TABLETS); (PROGESTOGEN-ONLY PILL); 28'S	26300	25300	96%
189705223	NORDETTE: LEVONORGESTREL & ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG (21 ACTIVE TABS); 7 RED PLACEBO TABS	53448	53457	100%
189707391	TRIPHASIL: LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG, 30MCG(6); 75MCG, 40MCG(5); 125MCG, 30MCG(10)	87100	85796	99%

**Table 17: Analysis**

Order fulfillment for the RH items reviewed at Mthatha is on average 96%.

While order fulfillment indicates that demand from facilities is delivered, the number of days that the Mthatha Depot experienced stock-outs over the 12 month evaluated period varies significantly between the different products. This can be seen in stock out evaluation table below.

**Table 18: Stock outs and stock availability at Mthatha**

RH items stock availability at Mthatha Depot

NSN number	Item description	Days = 0 Stock	Availability over 12 months
180359299	INTRAUTERINE DEVICE, CONTRACEPTIVE MIRENA; T-SHAPED; W/ STERIOD RESERVOIR; PLASTIC; LEVONORGESTREL (LNG)-CONTAINING CYLINDER;	1	100%
181902529	IMPLANT SUBDERMAL CONTRACEPTIVE LEVONORGESTREL 75MG; W/ INSERTER; STERILE; RADIO-OPAQUE; 2'S	324	11%
189702739	OVRAL: NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG & 0,05MG (21 WHITE TABS); 7 RED PLACEBO BLISTER PACK 28'S	57	84%
189703093	LEVONORGESTREL TABLETS: 0,03MG (28 ACTIVE TABLETS, NO PLACEBO TABLETS); (PROGESTOGEN-ONLY PILL); 28'S	0	100%
189705223	NORDETTE: LEVONORGESTREL & ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG (21 ACTIVE TABS); 7 RED PLACEBO TABS	43	88%
189707391	TRIPHASIL: LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG, 30MCG(6); 75MCG, 40MCG(5); 125MCG, 30MCG(10)	21	94%

**Table 18: Analysis**

When availability of a products in stock drop below 95%, this indicates periods of delay in being able to supply to health facilities, as there is no stock. Subdermal implant availability would be a concern, but after requesting additional data, we were made aware that subdermal implant stock is available on a different stock code. The availability below 95% could indicate either suppliers are not meeting their delivery lead times, and/or quantities, or it could indicate incorrect re-order calculation or stock parameters being applied at the depot. The next evaluation of stock on hand and orders due in however indicate that the issue could be due to suppliers not meeting their delivery lead times.

**Table 18: Impact**

Availability target for stocked items should be set at 100%, with a minimum of 95% in order to improve RH commodity delivery to the health facilities.

**Table 19: Stock on hand, and deliveries due in to the depot**

RH items monthly average demand, current stock levels and deliveries due, at Mthatha Depot

NSN Number	Item description	Average Monthly Demand	Current number of months stock on hand	Current number of months (Stock + Dues in)	Current Stock situation
180359299	INTRAUTERINE DEVICE, CONTRACEPTIVE MIRENA; T-SHAPED; W/ STERIOD RESERVOIR; PLASTIC; LEVONORGESTREL (LNG)-CONTAINING CYLINDER;	1	116.40	116.40	Excessive stock on hand
181902529	IMPLANT SUBDERMAL CONTRACEPTIVE LEVONORGESTREL 75MG; W/ INSERTER; STERILE; RADIO-OPAQUE; 2'S	404	-	-	Out of stock
189702739	OVRAL: NORGESTREL AND ETHINYL-OESTRADIOL TABLETS 0,05MG & 0,05MG (21 WHITE TABS); 7 RED PLACEBO BLISTER PACK 28'S	15,850	0.80	3.81	Stk levels < 1 month Average demand
189703093	LEVONORGESTREL TABLETS: 0,03MG (28 ACTIVE TABLETS, NO PLACEBO TABLETS); (PROGESTOGEN-ONLY PILL); 28'S	2,192	-	3.74	Out of stock
189705223	NORDETTE: LEVONORGESTREL & ETHINYL-OESTRADIOL TABS 0,15MG AND 0,03MG (21 ACTIVE TABS); 7 RED PLACEBO TABS	4,454	0.13	3.93	Stk levels < 1 month Average demand
189707391	TRIPHASIL: LEVONORGESTREL AND ETHINYL-OESTRADIOL TABLETS 50MCG, 30MCG (6); 75MCG, 40MCG (5); 125MCG, 30MCG (10)	7,258	-	3.42	Out of stock

**Table 19: Analysis**

The current stock on hand report indicates critically low levels of stock, with stock outs, or less than one month stock on hand for all RH commodities. The only exception being intrauterine device, which is over stocked. The additional findings regarding subdermal implants indicate that there are in fact 17,040 units stocked under code 181902532. We are however not sure which type of implant this is due to the NSN code being switched on the National contract.

The current number of months "stock on hand" plus "orders dues in" reflect that Mthatha is managing the re-order points and order quantities correctly. This can be seen in the consistent numbers all being between 3.42 and 3.93 months of stock.

It would appear that Mthatha is trying to hold 3 months stock of all RH Commodities at the depot. The fact that they either have no or limited stock clearly indicates there is an issue with supply. It has to be noted that the same suppliers on the same HPO3 National contract are keeping PE depot in stock (Even if it is below 1 month). The question raised is what would be leading to this different response within one province. One issue that often causes Suppliers to "suspend" delivery (they rarely cancel orders), is late or no payments for previous deliveries. Another reason is that as National negotiates a fixed standard national price for products delivered to all delivery points, the suppliers often priorities delivery to easier delivery points, as they have no incentive to deliver to depots that are not in major logistics hubs (such as Mthatha). Depots can apply a penalty for late delivery in terms of National contracts. But this is an additional administrative burden to the depot, and also cannot be applied if the supplier is withholding delivery because of non-payment.

Another possible reason for the low stock levels is that the report was run by Sita beginning of January. This is traditionally when stock levels are at their lowest as many suppliers and

pharmaceutical companies have had annual shut down over the December holiday, and will not make deliveries until the second week in January.

**Table 19: Impact**

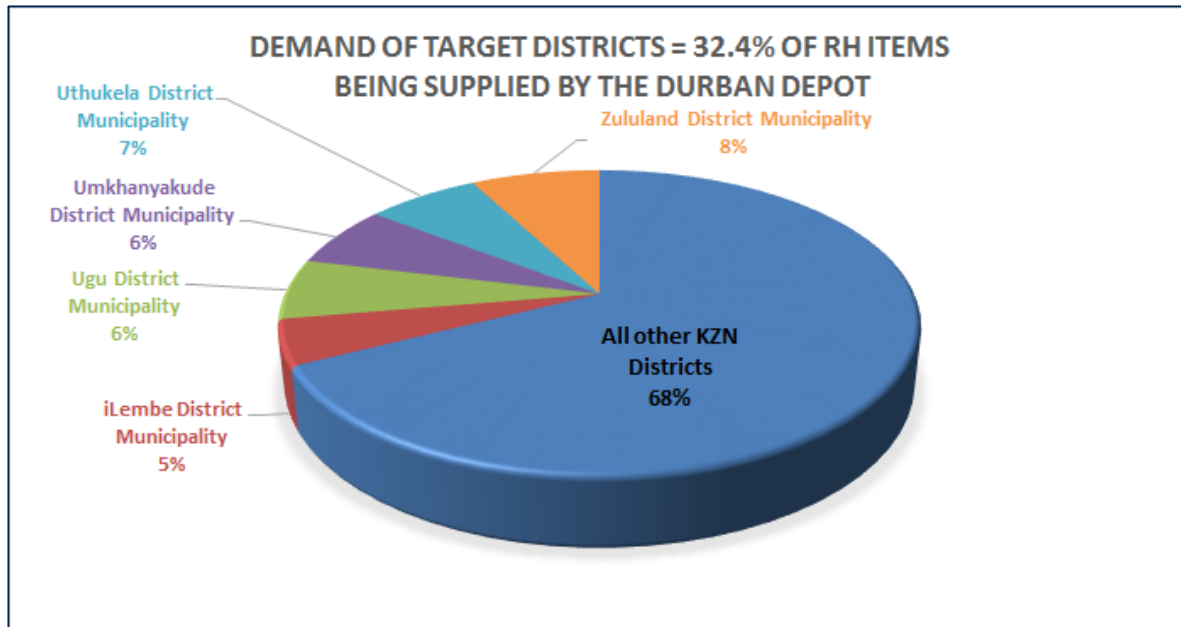
Irrespective of the reason for the stock levels, the Mthatha depot order fulfillment to health facilities will drop in the first month of 2016 due to no or limited stock. If suppliers have delivered as per the outstanding purchase orders the stock levels could have corrected to 3 months stock on hand, resulting in the situation being normalized.

**KwaZulu Natal: Durban PPSD (Provincial LMIS system - MEDSAS)*****Detail of all RH commodities placed onto Durban Depot***

The five districts target district (Zululand, Uthukela, Umkhanyakude, Ugu and Ilembe) represent over 32.4% of the RH commodity demand on the Durban Depot, as seen in Figure 13 below. The other KZN districts make up two thirds of the RH commodity demand on the Durban Depot.



**Figure 13: Percent demanded by district for Durban Depot**



Target District name	Demand quantity	Issue quantity	% of RH items Demanded
iLembe District Municipality	162,198	158,808	4.8%
Ugu District Municipality	217,885	216,453	6.4%
Umkhanyakude District Municipality	222,106	219,955	6.5%
Uthukela District Municipality	232,889	229,548	6.9%
Zululand District Municipality	265,118	259,838	7.8%
All other KZN Districts	2,292,584	2,252,435	67.6%
	3,392,780	3,337,037	

Details of all RH commodities placed onto Durban Depot:

Total order fulfillment for all RH commodities supplied by the Durban Depot for the period under review was 98% of demand for all KZN districts as seen below in Table 20.

**Table 20: Total demand on the Durban Depot for 12 month period (June 2014 to May 2015)**

Mainframe NSN	Item Description	Demand Quantity	Issue Quantity	% Demand fulfillment
3008411	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER;LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;6000'S	3,249	3,207	99%
3008412	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER,LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;7200'S	777	661	85%
181901862	LEVONORGESTREL 1.5MG 1 TABLET	24,356	24,054	99%
181902532	SUBDERMAL IMPLANT CONTAINING ETONOGESTREL 68MG + READY FOR USE 1 APPLICATOR	204,159	170,790	84%
189702739	NORGESTREL, ETHINYL ESTRADIOL 0.5/0.05MG 28 TABLET	230,000	227,500	99%
189703093	LEVONORGESTREL 0.03MG 28 TABLET	96,400	96,400	100%
189705223	LEVONORGESTREL, ETHINYL ESTRADIOL, MONOPHASIC 0.15/0.03MG 28TABLET	372,800	366,701	98%
189705261	NORETHISTERONE ENANTHATE 200MG/ML 1ML AMPOULE	474,200	469,600	99%
189706285	INTRA-UTERINE CONTRACEPTIVE DEVICE (IUCD), COPPER CU380 1 DEVICE	815	815	100%
189707391	LEVONORGESTREL, ETHINYL ESTRADIOL, TRIPHASIC 0.05/0.03MG, 0.075/0.04MG, 0.125/0.03MG 28 TABLET	463,420	463,869	100%
189762873	MEDROXYPROGESTERONE 150MG/1ML 1ML VIAL	1,513,400	1,513,400	100%
189762928	GESTODENE, ETHINYL OESTRADIOL 0.075/0.03MG 28 TABLET	40	40	100%
		3,383,616	3,337,037	
		Average demand fulfillment		97%

**Table 20: Analysis**

Most RH commodities had demand fulfillment exceeding 95%. There are a few exceptions, but as the volumes for these items are low, it did not impact the average fulfillment rate of 98%.

**Table 20: Impact**

Most RH commodity demand placed on the Durban Depot by facilities is supplied.

**Condoms****Table 21. Condoms**

Mainframe NSN	Item Description	Demand Quantity	Issue Quantity	% Demand fulfillment
3008411	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER;LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;6000'S	3,249	3,207	99%
3008412	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER,LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;7200'S	9,581	661	7%

**Table 21: Analysis**

Our understanding was that Condoms are distributed through the Condom LMIS system and not through the depots. However over 2 million male condoms were distributed by the Durban Depot in the period reviewed. The 7 digit item number used by the Durban Depot for condoms does not match any of the 9 digit NSN numbers on the National Condom contract HM01.

The only difference between these two condoms appears to be the pack size, as the item descriptions are the same. The Condoms are registered as donation stock and purchased at R0.00 value, and are being supplied by the Department of Health.

The order fulfillment rate for the one condom is 99% while the other is just 7%. This discrepancy did not look correct.

Further analysis was done on the 3008412 condom in which the 294 demand details lines of data was evaluated. Within these 294 line 5 Demand errors from facilities/Clinics were clearly identified:

- Demand placed for 100 units, Depot supplied 2 units and closed demand

- Demand placed for 90 units, Depot supplied 1 unit and closed demand
- Demand placed for 7,200 units, Depot corrected Unit of Measure (UOM) to 1 Box of 7 200
- Demand placed for 220 units, Depot supplied 4 units and closed demand
- Demand placed for 1,200 units, Depot supplied 1 unit and closed demand

**Table 22: Condom fulfillment after demand errors removed**

Mainframe NSN	Item Description	Demand Quantity	Issue Quantity	% Demand fulfillment
3008411	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER;LUBRICAT	3,249	3,207	99%
3008412	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER;LUBRICAT	777	661	85%

**Table 22: Analysis**

After removing these errors from the demand the fulfillment for the condoms 30008412 was recalculated and is actually 85%. The average condom demand fulfillment is an acceptable 96%.

**Table 22: Impact**

The impact of the demand errors could lead to excessive over ordering and supply if not identified and corrected by the Depot. The issue is once again the difficulty in using data from the MEDSAS legacy system, in which it is difficult for the depot to correct demand error values, and they remain in the system. Further analysis would be required to understand if these demand errors impact on the Depot re-order points and stock levels, and how the Depot management make adjustments for such errors.

### **Subdermal Implants**

**Table 23: Subdermal Implants**

mainframe icn	Item description	Target District	Demand quantity	Issue Quantity	% fulfillment	% of total demand on DBN Depot
181902532	SUBDERMAL IMPLANT CONTAINING ETONOGESTREL 68MG + READY FOR USE 1 APPLICATOR	Other Districts	137,208	111,371	81%	67%
181902532	SUBDERMAL IMPLANT CONTAINING ETONOGESTREL 68MG + READY FOR USE 1 APPLICATOR	Target Districts	66,951	59,419	89%	33%

**Table 23: Analysis**

The Durban depot ordered large quantities of the subdermal implant in 2014 under the old HP03 contract, using the correct NSN number 18190532 on the contract for the 68 mg Etonogestrel. Considering the amount of stock on hand it is difficult to understand why the depot could not fulfill 100% of the demand from the facilities. A detailed analysis of the demand lines for implants was completed. No obvious data capture errors or unit of measure errors could be identified. Out of the 462 facilities/Clinics placing demand for Implants, 174 facilities/clinics had their demand quantity reduced by the depot. This would indicate a

tendency of about one third of the facilities/clinics to place demand onto the depot for larger quantities than they actually require. How the depot is able to distinguish between “real” demand and “excess” demand would require investigation.

### Table 23: Impact

Implants are available and in stock. It would appear that without central Depot reviewing demand from health facilities and clinics, there would be a tendency to over order implants, which could intern result in increases in expired stock if not used by expiry date.

### *IUCD Copper*

**Table 24: IUCD Copper**

mainframe icn	Item description	Target District	Demand quantity	Issue Quantity	% fulfillment	% of total demand on DBN Depot
189706285	INTRA-UTERINE CONTRACEPTIVE DEVICE (IUCD), COPPER CU380 1 DEVICE	Other Districts	569	569	100%	52%
189706285	INTRA-UTERINE CONTRACEPTIVE DEVICE (IUCD), COPPER CU380 1 DEVICE	Target Districts	526	246	47%	48%

### Table 24: Analysis

Additional analysis was required as it did not look correct that other districts were having 100% demand fulfillment, while the target districts demand fulfillment was only 47% for IUCD devices. Further analysis of individual demand data revealed that one clinic in the target area had place demand for 300 units. The depot changed the issue to 20 units and closed off the demand line. All other facilities/clinics were receiving 100% of demand.

**Table 25: IUCD Copper –Demand error removed**

mainframe icn	Item description	Target District	Demand quantity	Issue Quantity	% fulfillment	% of total demand on DBN Depot
189706285	INTRA-UTERINE CONTRACEPTIVE DEVICE (IUCD), COPPER CU380 1 DEVICE	Other Districts	569	569	100%	70%
189706285	INTRA-UTERINE CONTRACEPTIVE DEVICE (IUCD), COPPER CU380 1 DEVICE	Target Districts	246	246	100%	30%

### Table 25: Impact

The depot is supplying all correct demand of IUCD’s 100%. The Depot has to review every demand, as just one clinic ordering excessive demand can deplete stock if not corrected before issuing. The issue of not being able to remove the incorrect demand is the same as previously mentioned.

***Gestodene Tablets*****Table 26. Gestodene Tablets**

mainframe icn	Item description	Target District	Demand quantity	Issue Quantity	% fulfillment	% of total demand on DBN Depot
189762928	GESTODENE, ETHINYL OESTRADIOL 0.075/0.03MG 28 TABLET	Other Districts	120	40	33%	100%

**Table 26: Analysis**

Upon further analysis it was established that only one hospital outside the target district ordered this product. The first demand was for 100 units, but the depot only supplied 20 units. Two months after they ordered 20 units and the depot supplied all 20. It would appear that the real demand for this item was always only 40 items.

**Table 27. Gestodene Tablets – Demand corrected**

mainframe icn	Item description	Target District	Demand quantity	Issue Quantity	% fulfillment	% of total demand on DBN Depot
189762928	GESTODENE, ETHINYL OESTRADIOL 0.075/0.03MG 28 TABLET	Other Districts	40	40	100%	100%

**Table 27: Impact**

The low demand for the Gestodene tablets and the fact that it is only being requested from one facility could explain why the Depot is not holding any stock. The question arises as to whether or not this be a stocked at item at a central Depot?

***Assessment of Durban Depot Logistics Management of RH Commodities***

The demand fulfillment, stock outs over the period analyzed, and current levels of stock on hand are key performance indicators of how a Depot is being managed. As already seen, demand fulfillment is generally above 95% for most commodities.

**Table 28: Stock availability for RH commodities at Durban Depot**

## RH items stock availability at Durban Depot

NSN Number	Item description	Days = 0 Stock	Availability over 12 months
3008411	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER;LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;6000'S	75	79%
3008412	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER,LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;7200'S	111	70%
181901862	LEVONORGESTREL 1.5MG 1 TABLET	32	91%
181902532	SUBDERMAL IMPLANT CONTAINING ETONOGESTREL 68MG + READY FOR USE 1 APPLICATOR	0	100%
189702739	NORGESTREL, ETHINYL ESTRADIOL 0.5/0.05MG 28 TABLET	80	78%
189703093	LEVONORGESTREL 0.03MG 28 TABLET	29	92%
189705223	LEVONORGESTREL, ETHINYL ESTRADIOL, MONOPHASIC 0.15/0.03MG 28TABLET	104	72%
189705261	NORETHISTERONE ENANTHATE 200MG/ML 1ML AMPOULE	35	90%
189706285	INTRA-UTERINE CONTRACEPTIVE DEVICE (IUCD), COPPER CU380 1 DEVICE	0	100%
189707391	LEVONORGESTREL, ETHINYL ESTRADIOL, TRIPHASIC 0.05/0.03MG, 0.075/0.04MG, 0.125/0.03MG 28 TABLET	70	81%
189762873	MEDROXYPROGESTERONE 150MG/1ML 1ML VIAL	14	96%
189762928	GESTODENE, ETHINYL OESTRADIOL 0.075/0.03MG 28 TABLET	192	47%

**Table 28: Analysis**

The number days that the Durban Depot experienced stock-outs over the 12 month evaluated period is low, therefore resulting in most commodities being available between 80% and 100% of the time.

On some items such as male condoms that have availability at 79% and 70% respectively, the availability is close to 100%, because the male condoms are directly interchangeable and if one item is out of stock, the depot can always supply the alternative to the facility/clinic.

**Table 29: Average demand, current stock levels, and deliveries due in to Durban Depot**

RH items monthly average demand, current stock levels and deliveries due, at Durban Depot

NSN Number	Item description	Average Monthly Demand	Current number of months stock on hand	Current number of months (Stock + Dues in)	Current Stock situation
3008411	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER;LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;6000'S	271	-	-	Out of stock
3008412	CONDOM INDIVIDUALLY PACKED;NATURAL LATEX RUBBER,LUBRICATED;SMOOTH SURFACE;W/ RESERVOIR;7200'S	798	-	-	Out of stock
181901862	LEVONORGESTREL 1.5MG 1 TABLET	2,030	0.66	2.14	Stk levels < 1 month Average demand
181902532	SUBDERMAL IMPLANT CONTAINING ETONOGESTREL 68MG + READY FOR USE 1 APPLICATOR	17,013	6.18	6.18	Excessive stock on hand
189702739	NORGESTREL, ETHINYL ESTRADIOL 0.5/0.05MG 28 TABLET	19,167	-	2.82	Out of stock
189703093	LEVONORGESTREL 0.03MG 28 TABLET	8,033	-	2.99	Out of stock
189705223	LEVONORGESTREL, ETHINYL ESTRADIOL, MONOPHASIC 0.15/0.03MG 28TABLET	31,067	-	1.93	Out of stock
189705261	NORETHISTERONE ENANTHATE 200MG/ML 1ML AMPOULE	39,517	0.25	1.77	Stk levels < 1 month Average demand
189706285	INTRA-UTERINE CONTRACEPTIVE DEVICE (IUCD), COPPER CU380 1 DEVICE	91	14.28	14.28	Excessive stock on hand
189707391	LEVONORGESTREL, ETHINYL ESTRADIOL, TRIPHASIC 0.05/0.03MG, 0.075/0.04MG, 0.125/0.03MG 28 TABLET	38,618	0.85	1.55	Stk levels < 1 month Average demand
189762873	MEDROXYPROGESTERONE 150MG/1ML 1ML VIAL	126,117	-	1.32	Out of stock
189762928	GESTODENE, ETHINYL OESTRADIOL 0.075/0.03MG 28 TABLET	10	-	-	Out of stock

**Table 29: Analysis**

The current stock on hand report however shows a sudden deterioration of the stock on hand at the Durban depot. Out of the eight high demand RH commodities, four items are out of stock and three items have less than one month stock on hand. The only exception being Subdermal implants, which is totally over stocked with six month stock on hand. The quantity of current stock-on-hand plus purchase orders due in is also not consistent. Some items have close to three months due in, while others have less than two months due in.

As previously stated a reason for the low stock levels is that the report was run by SITA beginning of January. This is traditionally when stock levels are at their lowest as many suppliers and pharmaceutical companies have had annual shut down over the December holiday, and will not make deliveries until the second week in January.

**Table 29: Impact**

It is most likely that availability will drop going forward if the large quantities of dues in are not received by the Durban Depot. Furthermore, additional orders need to be placed by the Depot to increase stock on hand to at least two months of demand.

**Additional Findings: Issues with NSNs**

During the visit to the Mthatha depot it was noted that Implant Subdermal 68mg is currently over stocked. When analyzing the data it was noted that there is currently no stock of the

Implant Subdermal 75mg, and no record of the Implant Subdermal 68mg in the data received from the Mthatha depot.

Upon further investigation it appears that under National Contract HP03-2013, the following NSN were used for subdermal implants:

- Item 181902532 - Subdermal implant containing etonogestrel 68 mg
- Item 181902529 - Subdermal implants containing levonorgestrel 75 mg

Under the new National Contract HP03-2015 (Effective from October 2015), it was discovered that NSN Item 181902529 was switched to “ Subdermal implant containing etonogestrel 68 mg” from “Subdermal implants containing levonorgestrel 75 mg”. Switching NSN on items results in a complete loss of integrity when trying to analyze historic data history, and may create other issues that could disrupt the supply chain.

Realizing that some data was missing from the reports regarding Subdermal Implant products, additional data was requested from SITA by running a search on “Subdermal Implant” on MEDSAS, rather than using the NSN. The results showed the below:

PE Depot:

181902532 IMPLANT SUBDERMAL CONTRACEPTIVE ETONOGESTREL 68MG;W/  
INSERTER;STERILE;RADIO-OPAQUE;1'S – Stock on hand = 7 187 units.

Mthatha Depot:

181902532 IMPLANT SUBDERMAL CONTRACEPTIVE ETONOGESTREL 68MG;W/  
INSERTER;STERILE;RADIO-OPAQUE;1'S - Stock on hand = 17 040 units

The Above example highlights the following three issues:

1. Quality Control system for Codification when allocating new National Stock Numbers might need to be reviewed, unless this is a once off error.
2. This example reflects that there could be additional RH commodity information missing from this analysis, but without doing a full spend analysis we cannot be sure of the number of possible missing NSN items.
3. While this example is not a MEDSAS system issue, it clearly indicates the challenges faced when obtaining Logistics information from the current Department of Health systems. In complex supply chains, organizations use structured coding to create item numbers that allow for more comprehensive searches when a specific product code is not known. Organizations that operate full Enterprise Resource Planning (ERP) systems also create product groupings or commodity codes to enable them to manage at the commodity level and not at item or component level. Therefore if all RH commodities were linked to a commodity group called “Reproductive Health”, and a report was run for the commodity and not the item, then it would not matter that NSN item codes were changed as all RH items would be identified in the report.



## Recommendation / Next Steps

While several challenges to the condom and other RH commodity supply chain were observed, those identified as priority interventions that can make the greatest impact and can be reasonably addressed in the short-term and long-term are given for the two supply chains reviewed. The team did not break the recommendations down by province, as the recommendations given are needed and relevant to both.

### Condoms Supply Chain

#### Short-Term

- 1) Revision of existing SOPs. Several processes have been devolved to provincial level and revisions are needed to reflect this. In conjunction with the revision it should be a requirement to:
  - a. Ensure distribution of revised SOPs to facility level.
  - b. Re-train Provincial coordinators on use of SOPs.
  - c. Train District level coordinators on use of SOPs
  - d. Hold training courses at district level for facility level personnel (cascaded training by means of training of trainers did not succeed with the previous implementation of SOPs).

Updating and training on SOPs will enforce and clearly establish the responsibilities of facility staff and supervisors to ensure bin cards and stock cards are filled out accurately and in a timely manner and information is shared regularly from the facility level upwards. In addition the SOPs will clearly outline procedures and timelines for ordering and resupply, to make inventory levels more consistent and accurate<sup>7</sup>.

- 2) In conjunction with updating the SOPs, a decision should be made on how to best capture data from the distribution of condoms to the NTOs. Currently NTOs are not able to be listed as a “site” in the DHIS and therefore many times their consumption data is not recorded. The team’s recommendation is to map out a process to allow for condom distribution to NTOs to be recorded in DHIS and include this in the updated SOPs. This same challenge was a finding noted in the March 2015 “South Africa Condom Supply Chain Assessment: Mpumalanga, Guateng and Free State” completed by the USAID | DELIVER PROJECT<sup>8</sup>.

#### Long-Term

- 3) Re-design the system to integrate the condom supply chain with the PPSD managed supply chain. This will help with two issues the condom program is currently facing –

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<sup>7</sup> USAID | DELIVER PROJECT, Task Order 1. 2011. The Logistics Handbook: A Practical Guide for the Supply Chain Management of Health Commodities. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1.

<sup>8</sup> USAID | DELIVER PROJECT. 2014. South Africa Condom Supply Chain Assessment. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4

- a) Storage and Transportation – Thus, the team’s recommendation is to leverage the PPSD’s existing storage facilities and distribution capabilities. In some cases additional space may need to be rented/procured by PPSD to allow for the increase of volume condoms bring, but this most likely outweighs the cost that will be needed to build additional condom dedicated storage space in the provinces and districts, along with the personnel and resources needed to manage it effectively.
- b) Lack of eLMIS – By fully integrating condoms into the PPSD in KwaZulu Natal and Eastern Cape, the current eLMIS / Warehouse Management System (WMS) currently being used, MEDSAS, will also be able to track condoms in addition to all other pharmaceutical commodities.

Integration also falls in line with the recommendations given in the previous assessment conducted in March 2015 which noted that condoms should be included on the eLMIS being rolled-out for use by the hospitals and facilities for all pharmaceutical commodities, RxSolutions.

In addition, integration is a best-practice JSI supports and advocates. A strong health system cannot function without a well-designed, well-operated, and well-maintained supply chain management system. The *Getting Products to People: The JSI Framework for Integrated Supply Chain Management in Public Health* (JSI, January 2012) publication draws from commercial sector best practices to solve problems in public health supply chains. As stated in the publication, “integration results in a more cost-effective, agile and reliable supply chain, yielding lower stockout rates, reduced costs, and better order fulfillment rates”<sup>9</sup>.

JSI typically recommends a participatory design/re-design process that includes stakeholders from various levels of the supply chain. Since supply chain system strengthening is a continuous process, having stakeholder engagement is critical to the long term implementation and success of the system.

## **Other RH Products & Supplies Supply Chain**

### **Short-Term**

- 1) While the RH commodity (excluding condoms) supply chain seems to run well as a whole, overstocking of IUDs and Implants was noted by many of the staff the team interviewed and supported by the site visits. The issue appeared to be mostly with Implanon, which was observed in the facilities and PPSD in Mthatha. To avoid mass amounts of expiries, in the short-term the RH Programs in each of the provinces and at the national level, need to review procurement plans in place for these types of commodities to halt any incoming orders if possible. They should also review forecasts to ensure demand is not being over-estimated. It was suggested to help increase demand that there is a need for media

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<sup>9</sup> John Snow, Inc. 2012. *Getting Products to People: The JSI Framework for Integrated Supply Chain Management in Public Health*. Arlington, Va.

campaigns in local language to increase uptake of contraceptives commodities and condoms.

- 2) Conduct further analysis to understand why not all RH commodities are showing in MEDSAS as carried at all three of the PPSD the assessment team covered through the data analysis.

### **Long-Term**

- 3) Ensure all other RH products and supplies are on a negotiated national or at least provincial contract for PPSD to procure. This will ease the process and cost of procurement for PPSD and help guarantee they have the right quantities to deliver.
- 4) For RH supplies, if PPSD is not currently procuring, ensure there are SOPs developed to define a process for facilities to follow when procuring these supplies.

### **National Level**

- 1) Re-assess the current national condom suppliers on contract to determine if they are best located to support all provinces and districts. Consider having dedicated suppliers for provinces based on location rather than requiring all suppliers to deliver to all provinces.
  - a. Will alleviate issues with suppliers refusing to deliver smaller quantities to farther provinces and remote facilities.
  - b. Will enable establishment of a relationship between province and supplier.
  - c. Eventual creation of a mutually beneficial relationship to allow vendor to take on increased role in stock management.
- 2) Address the NSN duplication issue identified in MEDSAS. In order to be able to accurately and effectively analyze data on commodities the PPSD handle, it is important that NSN are not switched. A thorough evaluation of the current data should be done and strict process controls on NSN should be put in place to ensure future analysis can be completed with ease.

## Annex A: SOP List

SOP NO	CURRENT REVISION NO	REVIEW DATE	PROCEDURE
SOP 001 NDOH	2010	2011	TENDERS AND CONTRACTS
SOP 002 NDOH	2010	2011	RESEARCH ON CONDOM ISSUES
SOP 003 NDOH	2010	2011	CONDOM PROMOTION CAMPAIGNS
SOP 004 NDOH	2010	2011	MANAGING AND MONITORING QUALITY ASSURANCE AND BATCHES
SOP 005 NDOH	2010	2011	RECALL AND DESTRUCTION PROCEDURE
SOP 006 NDOH	2010	2011	MANAGING DONATED STOCK
SOP 007 NDOH	2010	2011	MONITORING SUPPLIER STOCK AND PERFORMANCE
SOP 008 NDOH	2010	2011	MANAGING SUPPLIER ORDERS CALCULATING AND CREATING DISTRIBUTION AND DELIVERY LISTS
SOP 010 NDOH	2010	2011	SUPPLIER PAYMENTS
SOP 011 NDOH	2010	2011	MANAGING REPORTS
SOP 012 NDOH	2010	2011	REGISTRATION AND MONITORING PDS
SOP 001 PROV	2010	2011	REGISTRATION NEW PDS
SOP 002 PROV	2010	2011	REPORTING AND REPLENISHMENT
SOP 003 PROV	2010	2011	RECEIVING STOCK
SOP 004 PROV	2010	2011	MANAGING DONATED STOCK
SOP 005 PROV	2010	2011	COMMUNICATION
SOP 006 PROV	2010	2011	STORAGE AND QUALITY CONTROL
SOP 007 PROV	2010	2011	ISSUES AND DISTRIBUTION

## Annex B: Product List

Level of service delivery	Commodity/medicine for electronic stock management system
<b>Primary health care clinics</b>	<p><b><u>Contraceptives</u></b></p> <ol style="list-style-type: none"> <li>1. Male and Female condoms, lubricants</li> <li>2. Levornogestrel (Progestogen-only oral contraceptive)</li> <li>3. Levornogestrel/ Ethinyl Oestradiol (Combined Oral Contraceptive)</li> <li>4. Norgestrel/ Ethinyl Oestradiol (Combined oral contraceptive)</li> <li>5. DMPA and NET-EN. Medroxyprogesterone (Injectable progesterone based contraceptives)</li> <li>6. Implanon NXT (implant)</li> <li>7. Hormonal oral combined Emergency contraceptive pills (50µg Ethinyl Oestradiol and 150 µg Levornogestrel) e.g., as Nordette or Oralcon</li> <li>8. Hormonal oralprogestogen-only Emergency contraceptive pills: 1.5 µg Levornogestrel (e.g., Escapelle) and 0.5 µg Levornogestrel (e.g., Microval or Hy-an)</li> <li>9. Intra-Uterine Devices: (LNG-IUS)</li> </ol>
	<p><b><u>Critical Surgical supplies</u></b></p> <ul style="list-style-type: none"> <li>• Speculum</li> <li>• Vaseline</li> <li>• Sterile swabs</li> <li>• Hand washing facilities</li> <li>• Powder free gloves</li> <li>• Alcohol and chlorixidine</li> <li>• Lignocaine</li> <li>• Ruler/ measuring tape for implants insertion- length 15 cm</li> <li>• Plaster</li> <li>• Trolleys</li> <li>• Sharps containers</li> </ul>
	<p><b><u>Antenatal Care</u></b></p> <ul style="list-style-type: none"> <li>• Ferrous Sulphate</li> <li>• Folic Acid</li> <li>• Calcium</li> <li>• Magnesium sulphate (Pre/eclampsia)</li> </ul>
<b>Hospitals and Midwifery Obstetric Units (MOUs)</b>	<p>All primary health care commodities outlined above plus:</p> <ul style="list-style-type: none"> <li>• Antenatal corticosteroids (pre-mature births)</li> </ul> <p><b><u>Essential Life-Saving Commodities for Women and Neonates</u></b></p> <ul style="list-style-type: none"> <li>• Oxytocin – post-partum haemorrhage (PPH)</li> <li>• Misoprostol – post-partum haemorrhage</li> <li>• Magnesium sulphate (Pre/eclampsia) IMI/IV</li> <li>• Antenatal corticosteroids (pre-mature births)</li> <li>• Chlorhexidine (clean care of the cord) Injectable antibiotics: Gentamicin, procaine benzylpenicillin (PBP); ceftriaxone (2nd line)</li> </ul>

## Annex C: Logistics Systems Assessment Tool (LSAT) – Adapted version for Condom & RH Supply Chain Assessment

---

### SECTION I: Organization and Staffing

---

1. Describe supervisory structure by job position/title and by level. Indicate if any position receives supervision from more than one person or unit.

---

2. Is there a supervision system that covers supply chain activities?

Yes  No          Comments:

---

3. Has training been given to current staff, in the following areas (formal or informal & frequency):

a. proper storage of health products?

Yes  No          Comments:

b. maintaining proper stock levels?

Yes  No          Comments:

c.. determining order quantities?

Yes  No          Comments:

d. determining issue quantities?

Yes  No          Comments:

e. estimating annual needs?

Yes  No          Comments:

f. other? (list):

Yes  No          Comments:

---

4. Are there written procedures and guidelines (e.g., manuals, job aids, standards) to help staff carry out their supply chain responsibilities? If yes, ask for a copy of the guidelines.

Yes  No          Comments:

---

5. Do staff who manage commodities have a written job description that includes supply chain responsibilities?

---

6. During supervisory visits, is supply chain reviewed? If so, what aspect?

---

7. What are your biggest challenges impacting the functioning of the supply chain?

---

---

**SECTION II: Procurement**

---

1. Describe the procurement process.
  - a. Who is responsible?
  
  - b. When does it take place?
  
  - c. How long does the process take?

---

2. Are all products on national or provincial contract?

---

3. Are short-term procurement plans based on forecasted needs?  
 Yes  No  NA Comments:

---

4. Do these procurement plans take into account the following logistics system elements:
  - a. current inventory levels (stock on hand)?  
 Yes  No  NA Comments:
  - b. consumption (dispensed to user or issues)?  
 Yes  No  NA Comments:
  - c. losses and adjustments?  
 Yes  No  NA Comments:
  - d. required order lead times of suppliers/donors?  
 Yes  No  NA Comments:
  - e. established stock levels, if relevant (i.e., maximum and minimum levels)?  
 Yes  No  NA Comments:
  - f. shipment and handling schedules?  
 Yes  No  NA Comments:
  - g. need for safety stock?  
 Yes  No  NA Comments:

---

5. In general, are the correct amounts of all products procured and obtained at the appropriate time?

---

**SECTION II: Procurement**

---

6. What is done when low levels or a stockout of certain commodities are experienced at the following levels:
- Province?
  - District?
  - SDP?

- 
7. How is the budget determined for procurement?

- 
8. Do you have sufficient funds each year for procurement of all products? If no, how do you determine which commodities to procure?

- 
9. Other comments on procurement:

---

**SECTION III: Storage & Warehousing**

---

1. Does the program have written guidelines for storage and handling of all products, at all levels of the system (e.g., manuals, posters, etc.)?

Yes  No Comments:

- 
2. Does the program conduct at least one physical inventory of all products annually at storage facilities at the following levels:

- a. province?

Yes  No Comments:

- b. district?

Yes  No Comments:

- c. facility?



---

**SECTION III: Storage & Warehousing**


---

Yes    No   Comments:

---

3. Is the existing storage capacity adequate to handle the current quantities of products at the following levels:

a. province?

Yes    No   Comments:

b. district?

Yes    No   Comments:

c. facility?

Yes    No   Comments:

---

4. Specify storage conditions that need improvement, if any (e.g., cleanliness, organization, temperature, building structure, etc.).

---

5. Are there written procedures or guidelines for destroying damaged and expired products?

Yes    No   Comments:

---

6. Describe notable problems encountered in the past year, if any, regarding wastage due to damage or expirations. Please note product, level, location, approximate amount of goods, and actions taken.

---

7. Other comments on warehousing and storage:

---

**SECTION IV: Transportation & Distribution**


---

1. How are products (RH & Condoms) delivered between each level of the system (include frequency and means of transportation)? Specify between which levels. How are routes determined?

---

2. Is there a documented distribution schedule for all levels?

Yes    No    NA   Comments:

---

---

**SECTION III: Storage & Warehousing**


---

3. Are a sufficient number of functioning vehicles available, with petrol and drivers, at appropriate levels, to meet the desired product distribution schedule?

a. province?

Yes  No  NA Comments:

c. district?

Yes  No  NA Comments:

d. facility?

Yes  No  NA Comments:

---

4. In general, are orders delivered as scheduled at the following levels:

a. central?

Yes  No Comments:

b. regional?

Yes  No Comments:

c. district?

Yes  No Comments:

d. service delivery point?

Yes  No Comments:

---

5. a. Is transportation outsourced at any level of the system?

Yes  No

b. If yes, how effective has it been?

---

6. Other comments on transport and distribution:

---



---

**SECTION V: Logistics Management Information Systems (LMIS)**


---

1. Is there a logistics management information system (either paper-based or automated)?

Only Paper Based  Automated/Computer Based  Both  Neither

Comments:

---

2. Map the flow of information from the health facility up to the central level. Please include information about forms (automated vs. paper) used, frequency of reporting, who's responsible, and where data is aggregated. (Attach a diagram.)

---

---

**SECTION V: Logistics Management Information Systems (LMIS)**


---

3. If there is an automated system, does it generate the following?

a. reports?

Yes  No

Comments:

b. calculations?

Yes  No

Comments:

c. alerts/messages?

Yes  No

Comments:

d. other

Yes  No

Comments:

4. If it is a paper based system, what reports and methods are used to manage inventory?

---

5. Is logistics information collected through another information system (e.g., HMIS)? If so, name, describe briefly here and answer the following questions in this section referring to the specific information system, if necessary.

---

6. Are the LMIS or other information systems reports reviewed at the provincial level and do they provide information on stock status at the health facility level? (i.e., does the provincial-level staff have accurate routine information on which facilities are stocked out, under stocked, adequately stocked, or overstocked?) Please explain.

(b) Are these reports used to assist in any decision making:

- a. For continuous monitoring of stock balances?
- b. To calculate quantities for forecasting / resupply?
- c. For any other purposes?

---

7. How do managers monitor reporting rates and follow-up to obtain missing logistics reports?

---

8. Other comments on the LMIS:

---



---

**SECTION VI: Inventory Management**


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---

**SECTION VI: Inventory Management**


---

1. Are there guidelines and established policies for maximum and minimum stock levels at which full supply products should be maintained? (Please note current maximum and minimum levels in comments section.)
  - a. province?
 

Yes    No    NA   Comments:
  - b. district?
 

Yes    No    NA   Comments:
  - c. facility?
 

Yes    No    NA   Comments:

---

2. In practice, does the program manage and issue stock according to FEFO inventory control procedures at all levels? Describe.
 

Yes    No   Comments:

---

3. Are bin cards or stock cards used at each level? Are they accurate and up to date?

---

4. Are damaged/expired products physically separated from inventory and removed from stock at the following levels:
  - a. province?
 

Yes    No    NA   Comments:
  - b. district?
 

Yes    No    NA   Comments:
  - c. facility?
 

Yes    No    NA   Comments:

---

5. Does the program track product losses and other adjustments?
 

Yes    No   Comments:

---

6. Have stockouts occurred for any product in the last 12 months at the following levels:
  - a. province?
 

Yes    No    NA   Comments:
  - b. district?
 

Yes    No    NA   Comments:
  - c. facility?
 

Yes    No    NA   Comments:

---

7. How does each level of the system calculate resupply quantities?
  - a. province?
  - b. district?
  - c. facility?

---

8. Other comments on inventory management:

---

## Annex D: Workshop Questionnaire

### Questions for Condom Supply Chain

What percentage of your time do you dedicate to condom management?

Is condom management described in your job description?

How do condoms get to your district / facility?

- Are they delivered? If yes, who delivers them? How often are they delivered?
- Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?

Do you distribute condoms to other SDS or NTOs? If yes, how?

Where are the condoms stored? Describe the space.

What is the maximum number of boxes (6,000 condoms per box) your storage space can hold?

How is inventory managed?

Do you report inventory status to the province? How?

How often are supervisory visits made to distribution sites?

How do you check each facility is reporting monthly?

Are there are SOPs? If yes, are they available at every facility and have they been trained?

Have you experienced a stock-out of condoms in the last 12 months?

What are your biggest challenges impacting the functioning of the condom supply chain?

### Questions for Reproductive Health Commodities Supply Chain – Hormonal & Pharmaceutical

What percentage of your time do you dedicate to RH management?

Is RH management described in your job description?

How do these RH products get to your district / facility?

- Are they delivered? If yes, who delivers them? How often are they delivered?

- Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?

Where are these RH products stored? Describe the space.

How is inventory managed?

Do you report inventory status to the province? How?

How often are supervisory visits made to the sites receiving these RH products?

How do you check each facility is reporting monthly?

Are there are SOPs? If yes, are they available at every facility and have they been trained?

Have you experienced a stock-out of any product in the last 12 months?

What are your biggest challenges impacting the functioning of the RH supply chain?

### **Questions for Reproductive Health Commodities Supply Chain – Surgical Sundries**

How are surgical sundries procured?

Are they purchased on a national contract or provincial contract?

How do the surgical sundries get to your district / facility?

- Are they delivered? If yes, who delivers them? How often are they delivered?
- Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?

Where are the surgical sundries stored? Describe the space.

How is inventory managed?

Do you report inventory status to the province? How?

Are there are SOPs? If yes, are they available at every facility and have they been trained?

Have you experienced a stock-out of any product in the last 12 months?

What are your biggest challenges impacting the functioning of the surgical sundries supply chain?

## Annex E: KwaZulu Natal Province Workshop Participants

KwaZulu Natal Province Workshop Participants		
Names	Position	District
Nkosinathi Roji	Deputy Manager	Provincial Office
Prince Nhcanganiso Zulu	Deputy Manager	Provincial Office
Sibusiso Gasa	Deputy Manager	Provincial Office
Nontobeko Ndadame	HAST Program Coordinator	Ilembe District
Msawenkosi Mbali	TBC Program Manager	Ilembe District
Lessa Myemi	Professional Nurse	Ilembe District
BE Cele	District HAST Coordinator	Ugu District
Thabile Marcia Mayeza	HAST Administrative Clerk	Ugu District
Bertha Cornelia Msomi	Maternal Child and Women Health	Ugu District
Siphiwe Kihumaw	Pharmacy Manager	Uthukela District
Thabisile Hlatshwayo	MCWH	Uthukela District
Sindisino Sithole	ONM (HIV Community Coordinator)	Uthukela District
Bhekisisa Fakude	District HAST Coordinator	Umkhanyakude District
Thabisile Dlamini	Clinical Specialist Midwife	Umkhanyakude District
Mthandi Siyanya	District HIV & AIDS Coordinator	Umkhanyakude District
Sibusiso Mhlungu	Manager: Pharmacy Services	Umkhanyakude District
Mboneni Gida	District Mentor Coordinator	Zululand District
Bongumusa Mbatha	Operational Manager – PHC – HCBC	Zululand District

## Annex F: Eastern Cape Province Workshop Participants

Eastern Cape Province Workshop Participants		
Names	Position	District
Liziwa Lunyawo	Deputy Director: HIV Prevention Manager	Provincial Office
Lundi Ncana	Assistant Director: Condom Logistics	Provincial Office
Nontando Sideko	Assistant Director: ASH-SRH Coordinator	Provincial Office
Ziyanda Mpepo	Pharmaceutical Policy Specialist: HIV AIDS Directorate	Provincial Office
Ntombekhaya Makeleni	HAST Manager	Amathole District
Nothando Mpepancluku	District Condom Coordinator	Alfred Nzo District
Siyabonga Diko	HIV/AIDS and STI	Alfred Nzo District
P. Noluthando Gwiji	Maternal Child And Women's Health Coordinator	Alfred Nzo District



## Annex G: NSN for Contract HP03-2013FP: Supply and Delivery of Family Planning Agents to the Department of Health for the Period 01 October 2013 to 30 September 2015

Item no	NSN Number	Item Specification	Unit Pack	Shipper Pack	Unit of issue	Lead Time (Days)	% Split	Name of Supplier
1	181795795	Intra-uterine contraceptive device (IUCD), device + inserter + explanatory booklet A flexible T-shaped, radio-opaque intra-uterine device with safe load and sound probe device Copper wire, producing 380mm <sup>2</sup> copper, to be wound around the stem, to which a monofilament thread is attached and around the transverse arms Device: approximately 32mm width; 36mm shaft length Wire diameter: 0.4mm Sterile, individually packed. Must be registered with the MCC	1		CO	13		Bayers (PTY) Ltd
3	181925737	Hystero meter (Probe) A graduated sounding instrument for measuring the depth of the uterine cavity. Device: approximately 27mm in length Straight, slightly conical and centimeter marked flange adjustable positioned to be set on the cervix external orifice Soft distal part on a rigid handle Diameter 3,3 mm Tip should be rounded to allow a comfortable insertion through the cervical canal Measurement scale ranges from 6 to 12 cm, must allow direct reading on the Hysterometer/Probe Single use, sterile, individually packed To comply with the latest ISO13485 Pack of 25	25	1 Box of 25	EA	14		Triton Enterprises cc
4	189705223	Monophasic, 21 tablets each containing: Levonorgestrel 0.15 mg and Ethinyl Oestradiol 0.03 mg plus 7 inert tablets One unit of 28, blister packed tablets with a secondary outer package	28		CO	13	90.00%	Mylan (Pty) Ltd
4	189705223	Monophasic, 21 tablets each containing: Levonorgestrel 0.15 mg and Ethinyl Oestradiol 0.03 mg plus 7 inert tablets One unit of 28, blister packed tablets with a secondary outer package. <b>Spec deviation: 1 box (100 x 28's)</b>	28		CO	14	10.00%	Pharmacare Limited
6	189707391	Triphasic, 6 tablet each containing Levonorgestrel 0.05 mg and Ethinyl Oestradiol 0.03 mg plus 5 tablets each containing: Levonorgestrel 0.075 mg and Ethinyl oestradiol 0.04 mg plus 10 tablets each containing: Levonorgestrel 0.125 mg and Ethinyl oestradiol 0.03 mg plus 7 inert tablets One unit of 28, blister packed tablets with a secondary outer package	28		CO	13	90.00%	Mylan (Pty) Ltd
6	189707391	Triphasic, 6 tablet each containing Levonorgestrel 0.05 mg and Ethinyl Oestradiol 0.03 mg plus 5 tablets each containing: Levonorgestrel 0.075 mg and Ethinyl oestradiol 0.04 mg plus 10 tablets each containing: Levonorgestrel 0.125 mg and Ethinyl oestradiol 0.03 mg plus 7 inert tablets One unit of 28, blister packed tablets with a secondary outer package <b>Spec deviation: 1 box (100 x 28's)</b>	28		CO	14	10.00%	Pharmacare Limited
11	189762928	Monophasic, 21 tablets each containing: Gestodene 0.075 mg and Ethinyl Oestradiol 0.03 mg plus 7 inert tablets One unit of 28, blister packed tablets with a secondary outer package	28		CO	13		Bayers (PTY) Ltd
13	189703093	Monophasic, LEVONORGESTREL 0.03mg tablet 28 tablets in a blister pack with a secondary outer package	28		CO	13		Mylan (Pty) Ltd
16	181901862	Levonorgestrel 1.5 mg tablet 1 tablet	1		EA	14		Litha Pharma (Pty) Ltd
17	189702739	Monophasic, 21 tablets each containing: Norgestrel 0.5 mg and Ethinyl Oestradiol 0.05 mg plus 7 inert tablets One unit of 28, blister packed tablets with a secondary outer package	28		CO	13		Mylan (Pty) Ltd
18	189710598	Medroxyprogesterone acetate injection 150 mg 1 ml vial	1		VI	14		Fresenius Kabi South Africa (Pty) Ltd
19	189750995	Norethisterone enanthate 200 mg injection: <b>Spec deviation: (Pack size 1 x 100)</b> 1 ml ampoule	1		PK	13		Bayers (PTY) Ltd
20	181834734	Clip, tubal occlusion with mechanical locking device, X-ray detectable sterile unit pack of 1 pair	1		PR	14		Triton Enterprises cc
21	180359299	Intra-uterine system containing Levonorgestrel 52 mg, releasing Levonorgestrel 20 mcg/24 hours Sterile, individually packed unit containing inserter T-body with removal threads in sealed sterilisation pouch	1		EA	13		Bayers (PTY) Ltd
22	180145945	Ring, fallopian tube, manufactured from dimethylpolysiloxane (silastic) containing two fallopian ring bands and one dilator. Sterile radio-opaque 50 pairs One guide must be supplied with every 50 pairs	50		BX	14		Triton Enterprises cc
23	181902529	Subdermal implant containing Etonogestrel 68 mg + ready-for-use, disposable applicator (inserter). Sterile, radioopaque, individually packed.	1		CO	13		MSD (Pty) Ltd

## **Annex H: Workshop Questionnaire for KwaZulu Natal: Ilembe, Ugu, Umkhanyakude, Uthukela, and Zululand Districts**

### **Questions for Condom Supply Chain**

**What percentage of your time do you dedicate to condom management?**

- |   |                                   |
|---|-----------------------------------|
| 1. 10%  | 8. 5%                             |
| 2. 20%  | 9. 10%                            |
| 3. 90%  | 10. 30%                           |
| 4. 30%  | 11. 10%                           |
| 5. 10% - mostly monitoring availability at both hospitals and clinics. They are part of pharmaceutical catalog. | 12. 30%                           |
| 6. 50%  | 13. 20%                           |
| 7. 10% monitoring their distribution every month.   | 14. Group Discussion:<br>5% - 10% |

**Is condom management described in your job description?**

1. Yes.
2. Yes, at program development, management coordinator and M&E level.
3. No.
4. Yes.
5. Not specific, but as part of overall pharmaceutical supply management.
6. No.
7. Yes.
8. Yes.

9. Not specifically but cut across the program.

10. Yes.

11. Not exactly.

12. No.

13. No.

14. Group Discussion:

Just generalized, not specifically. Some people feel it is, most have a vague connection.

#### **How do condoms get to your district / facility?**

– **Are they delivered? If yes, who delivers them? How often are they delivered?**

1. Delivered from National department by their contractors on demand.

2. Ordered through supply chain management.

3. Condoms come from the province. Receive only male condoms. Different suppliers deliver them on a monthly basis.

4. Condoms are procured provincially through the national contract of condom supply.

5. Yes, by contracted distributors to the district office on demand. By provincial pharmaceutical supply depot to facilities.

6. From the province. Yes, but male condoms only, delivered by different supplies on monthly basis.

7. Yes, NDOH by a contracted service provider.

8. Male condoms are delivered by contracted service provider as per need and space.

9. Delivered by provincial department.

10. Yes provincial office.

11. Yes, by the provincial supplier.

12. By delivery from the provincial office and at times the district HAST component arranges for collection from CPS. Collections and deliveries are usually every month or two months.

13. Sometimes are being delivered by people who have tenders with the province. Sometimes we have to collect from the province.

14. Group Discussion:

Facilities receive from PPSD, they send in orders/requisitions. Condom suppliers sometimes call PDS directly and say they are delivering (push).

– **Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?**

1. No.
2. No.
3. Yes at Provincial HAST unit if necessary.
4. They are delivered by suppliers to PDS.
5. No.
6. Yes, at the provincial HAST unit if necessary.
7. No.
8. Female condoms are picked up from head office depending on the need and space.
9. Delivered to the depot.
10. Yes. Example – female is finished – CPS – Province once in 2-3 months.
11. By the district contracted service provider to distribution site. Facilities order.
12. Yes, from PCS-PMB. Whenever the remaining stock is low or if there is a demand from the clinics and condom service providers.
13. Yes. When the province notifies us or instructs us. Or sometimes we don't have stock in our district.

**Do you distribute condoms to other SDS or NTOs? If yes, how?**

1. We use contracted condom distributor.
2. Yes, tendered agents.
3. Yes, using district office vehicle.

4. Yes they are about 2,754 SDS in the province.
5. Yes, the NGOs from the district office only. The requested stock and quantity issued is recorded on a stock card.
6. Yes, using district office vehicle.
7. Yes. It is distributed to the secondary sites and other areas where it is needed, such as taverns, police stations, etc.
8. Distribution is done through contracted service providers, community outreach team and supporting NGOs.
9. District contracted service provider.
10. Yes, 2 providers who cover all the sub-district and wards in each sub-district.
11. They are distributed by the service provider.
12. Yes. The condom distributors fetch them from the district office. Through HTA teams when conducting HCT services at events.
13. Yes we have service providers who are really not providing good service.
14. Group discussion:  
  
Ilembe – condoms are given to CCGs. Also give brown bags to patients with prescriptions and put condoms in to make it anonymous.

**Where are the condoms stored? Describe the space.**

1. We store them in an old building (old clinic that is no longer being used for PHC). We have 5 big rooms.
2. Stores at pharmacy.
3. Stored in our district warehouse. Space doesn't meet SOPs and no human resources allocated in the warehouse.
4. Stored in various PDS at the district. There are also 2 provincial stores.
5. Those distributed by distributors are stored at the district offices and further distributed for storage and distribution to facilities, NGOs and other outlets. Those distributed by the depot are stored at the medicine storerooms with other medicines.

6. In warehouse, space does not meet SOPs and no human resource allocated in a warehouse.
7. It is kept in a steel container without an air-conditioner.
8. District office storage container with air-conditioner which can take +/- 200 boxes of male condoms.
9. At depot.
10. Garage space with an air conditioner, pallets, shelves. No sunlight always locked.
11. PDS
12. At the basement parking in the building and a small storeroom we normally use for female condoms.
13. Very limited storage space, which is a huge challenge since we are utilizing entire place.
14. Group discussion:

Ugu → very limited. 200 boxes in underground parking area

Ilembe → air conditioner, pallets and shelves in single garage. About 80 boxes of male and 100 boxes of female.

Zululand → they have a space which isn't great and has no pallets, but can store up to 3,000 boxes.

Uthukela → 1,805 boxes

Umkhanyakude → container with air conditioning and pallets. Store up to 200 boxes at PDS.

**What is the maximum number of boxes (6,000 condoms per box) your storage space can hold?**

1. 1835 boxes.
2. 200 boxes.
3. 3333 boxes.
4. 50 – 500 boxes.
5. 200 boxes at district office.
6. 3,333 boxes
7. 200 boxes.
8. 200 boxes.
9. 80 boxes.
10. 80 boxes male. 100 female boxes if small.
11. 80 boxes.
12. 200 boxes of male. 200 boxes of female condoms.
13. 200 boxes of male. 200 boxes of female condoms.

**How is inventory managed?**

1. WE use stock card (bin card) to record all condoms that are received and issued. On a monthly basis stock count is conducted (physical count) then the data is recorded on stock card, DHIS and other report is forwarded to provincial department to a person responsible for condoms.
2. Physical count, stock cards, FIFO.
3. Physical counting on monthly basis. Using stock cards.
4. Through the bin card system.
5. Using a stock card at the district and medicine storerooms for both receipts and issues. At the dispensing points tally sheet are used to record issues.
6. Physical count on monthly basis using stock card.
7. Weekly.
8. Weekly stock taking.
9. Monthly order from ...
10. By SCM using bin cards. Every month they do physical count and totals.
11. Bin cards and stock cards.
12. By SCM.
13. Poorly managed. SCM sometimes at least quarterly.
14. Group Discussion:
  - Ugu → there is no real supervision of bin cards
  - Zululand → bin cards, he does stock and bin card check in 1 of 4 of the PDS
  - Umkhanyakude → bin cards, office admin does LMIS

**Do you report inventory status to the province? How?**

1. On the 1<sup>st</sup> of every month we report using a LMIS form (issues, receipts & stock balance) then forward that report to the province.

2. Not sure.
3. Yes, by telephone and electronically.
4. Some districts submit their inventory status on a monthly basis.
5. Monthly using a report form (district stock supplied by distributors). Stock status supplied by the depot is not reported.
6. Yes, by telephone and electronically.
7. Yes, monthly reporting.
8. Yes, through monthly reporting.
9. Yes, monthly reports.
10. Yes, emails for province, condom coordinator and DHIS.
11. Yes, through DHIS and emails.
12. Yes. By forwarding the original invoices to the provincial HAST unit.
13. Also very poor reporting as district have no reporting tool.

14. Group discussion:

How happy are you (from 1-10) that the DIO is filling out the correct info.

Ugu → less than 5

Ilembe → 5-10

Zululand → 5-10

Uthukela → 10

Umkhanyakude → 6-8

**How often are supervisory visits made to distribution sites?**

1. Left blank.
2. Monthly by sub-district supervisors. Daily by clinic operational managers. Infrequent support visits by district coordinators.
3. Bi-monthly.



4. From the province it is an ad hoc issue, usually responsive to incidents.
5. Monthly at minimum.
6. Bi-monthly.
7. Monthly.
8. Monthly.
9. Monthly.
10. Quarterly.
11. Monthly.
12. Rarely.
13. Rarely. Sometimes when stocks run out.

**How do you check each facility is reporting monthly?**

1. By DHIS.
2. DHIS.
3. By collecting status of condoms monthly.
4. Through DHIS.
5. DHIS data.
6. By collecting condom monthly report.
7. Yes, on the monthly reporting of data and stock cards.
8. DHIS Report.
9. Statistics ICM.
10. DHIS.
11. DHIS monthly report.
12. Through DHIS.
13. DHIS.

## 14. Group discussion:

Ugu → some facilities are reporting directly to district, some are reporting to hospital.

Ilembe →

Uthukela → facilities don't take responsibility at the monthly meeting for data.

**Are there are SOPs? If yes, are they available at every facility and have they been trained?**

1. Yes. Not available at all facilities.
2. Only policies and guidelines.
3. Yes, in all PDS and some of the staff are trained.
4. LMIS SOPs are available, but not all facilities are trained.
5. Yes, at the district office. At facility medicine stores they use the normal medicine supply management SOPs from procurement to distribution.
6. Yes, in all PDS and some of the staff are trained.
7. Yes, at the district level, but facility does not have a person who is dedicated for condom logistics.
8. Yes, only at district office where there is a responsible and dedicated person for LMIS.
9. No SOPs.
10. No.
11. Not that I know of.
12. No.
13. No. WE will be pleased if we can have training.
14. Group discussion:
  - Ugu → no.
  - Zululand → at the PDS.
  - Uthukela → at the district office.
  - Umkhanyakude → they have SOPs for general commodity management

**Have you experienced a stock-out of condoms in the last 12 months?**

- |                         |   |
|-------------------------|---|
| 1. Yes.                 | 11. Yes, female condoms.                            |
| 2. No.                  | 12. Yes.  |
| 3. No.                  | 13. Yes.  |
| 4. No.                  | 14. Group discussion:                               |
| 5. No.                  | Ugu → yes   |
| 6. No.                  | Ilembe → yes, female condoms                        |
| 7. No.                  | Zululand →  |
| 8. No.                  | Uthukela → yes, stock out last<br>October/November  |
| 9. Yes, female condoms. | Umkhanyakude → no, just erratic supply<br>from PPSD |
| 10. No.                 |   |

**What are your biggest challenges impacting the functioning of the condom supply chain?**

1. No permanent person is employed to distribute condoms. We rely on condom contractors. No dedicated vehicle in district for distribution of condoms. If we don't have condom distribution than condoms won't be distributed in the community.
2. None.
3. None.
4. Short contract for condom distributors.
5. Storage space constraints are the hospitals results in hospitals frequenting the district office.
6. None.
7. Storage space is limited.
8. Storage space.
9. Shortages of female condoms and patients choice – flavored condoms. Patients mentality believe more in male condoms than female condoms.

10. People want colored condoms now. Distribution once a month is hard.
11. Delays in delivery. Community prefers the flavored condoms.
12. Storage. There is no proper monitoring tool given to the condom distributors contracted to the district office. Supplier delivering condoms to the district without permission from the provincial office.
13. Storage. Unavailability of SOPs. Service provider supervision. Suppliers delivering condoms to districts without approval from province.
14. Group discussion:
  - Ugu → storage and suppliers that deliver condoms without authorization from province.
  - Ilembe → suppliers delivering without notice and no storage space
  - Zululand →
  - Uthukela → storage and drivers for deliveries
  - Umkhanyakude → storage

## **Questions for Reproductive Health Commodities Supply Chain – Hormonal & Pharmaceutical**

### **What percentage of your time do you dedicate to RH management?**

1. 30%. Since it is not the only responsibility, there are also programs like child health that need management.
2. 10%
3. 10%
4. 20%. Mostly monitoring pharmaceutical staff, managers and their performance.
5. 20%
6. 100%
7. 20%

### **Is RH management described in your job description?**

1. Yes, with other responsibilities such as maternal health, child health and women health as a whole.
2. No, but it cuts across in my job description and management of my program.

3. It is not described but it is cut across the program.
4. Yes.
5. Yes.
6. Yes, at program development, management, and coordinator level.
7. Yes.

**How do these RH products get to your district / facility?**

- Are they delivered? If yes, who delivers them? How often are they delivered?
  1. They are delivered by courier on stipulated dates (scheduled) at least once a month.
  2. Monthly.
  3. PMSC.
  4. Yes, couriers who distribute from the depot monthly.
  5. Yes they are ordered direct from PPSD and delivered direct o the clinics/facilities.
  6. Yes, every 3 months.
  7. Yes, PPSD delivers monthly or weekly.
  
- Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?
  1. No, they are delivered.
  2. At our pharmacy.
  3. Delivered to facility.
  4. Seldom, only when emergency orders are made, then they are picked up from PPSD.
  5. No.
  6. No.
  7. No.

**Where are these RH products stored? Describe the space.**

1. Stored in the pharmacies and those that are used in different consulting rooms.
2. Consulting rooms.
3. Consulting rooms, pharmacy.
4. Medicines store room at hospitals and clinics.
5. They are stored in the store room/pharmacy. The room is kept cool and dry.
6. Pharmacy at the hospital and clinic level. Consulting rooms.
7. Shelves, space is adequate.

**How is inventory managed?**

1. Stock card in the pharmacy and re-order levels monitored every 3 months and updated as per use.
2. Using bin/stock cards
3. Order books, stock cards.
4. Computerized system at hospitals and stock cards at clinics together with other pharmaceuticals.
5. Stock cards are used for control and monitoring any monthly stock take done on a scheduled date per facility/clinic.
6. Through stock taking done physically every month, stock management (FIFO) and use of stock cards.
7. Pharmacist assistant and pharmacist manage stock cards on the shelves and order levels on the electronic system.

**Do you report inventory status to the province? How?**

1. Reported to the district office.
2. DHIS.
3. DHIS.
4. No, DHIS sends consumption data directly.

5. Reports come from the clinics to sub-district up to the district and province.
6. Not sure.
7. Yes, weekly system.

**How often are supervisory visits made to the sites receiving these RH products?**

1. At least monthly, as routine and per week if anything need to be addressed or someone demanding.
2. Monthly.
3. Monthly.
4. Monthly.
5. Once a month or in two months' time.
6. Monthly by sub-district supervisor, daily by operational manager. Infrequently by district coordinator. Facility visits are not regularly done to one particular facility but whenever facility visits is done.
7. Supervisor is stationed in bulk store. Pharmacy manager frequently visits.

**How do you check each facility is reporting monthly?**

1. Reporting in DHIS and information validated and verified before send to province.
2. DHIS monthly reports.
3. Monthly spreadsheet.
4. Consumption data on DHIS.
5. It is checked through the monthly statistics that are generated from the clinics to district via sub-district.
6. DHIS.
7. Weekly reports are consolidated every month.

**Are there are SOPs? If yes, are they available at every facility and have they been trained?**

1. SDP available in all facilities and they are trained but staff turnover is very high, which leads to some gaps.
2. Yes, they are available.
3. Yes in all facilities.
4. Yes, medicine supply management SOPs are used.
5. Yes they are available and training was done a year ago.
6. No, only guidelines and policies.
7. Yes, annual training and review.

**Have you experienced a stock-out of any product in the last 12 months?**

- |        |        |
|--------|--------|
| 1. No. | 5. No. |
| 2. No. | 6. No. |
| 3. No. | 7. No. |
| 4. No. |        |

What are your biggest challenges impacting the functioning of the RH supply chain?

1. Distribution of some hormonal products where there is no even distribution as per demand or use.
2. Getting less stock than requested. Delays in deliveries.
3. PMSC delays.
4. Up-take of some of the products resulting in excess stock (subdermal implants)
5. None.
6. Stock management and use of stock cards. Data management, recording and reporting. Budgetary constraints for each facility. Procurement process. Sometimes demands override capacity that can be supplied by the manufacturer (not all RH products).
7. None.



## Questions for Reproductive Health Commodities Supply Chain – Surgical Sundries

### How are surgical sundries procured?

1. Procured from PPSD every month.
2. Supply Chain Management Initiates quotations if below R30 000. Tender process if above R30 000.
3. Through CPS (centralized procurement services) at the province.

### Are they purchased on a national contract or provincial contract?

1. Provincial contract.
2. Both.
3. National.

### How do the surgical sundries get to your district / facility?

- **Are they delivered? If yes, who delivers them? How often are they delivered?**
  1. Delivered by those contracted to deliver (couriers).
  2. Delivered by the company /supplier who got the tender or lowest quote.
  3. Yes, couriers contracted to CPS.
- **Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?**
  1. Delivered as per order, but more or less weekly.
  2. No.
  3. Yes, from CPS when it is an emergency stock.

### Where are the surgical sundries stored? Describe the space.

1. Storeroom.

2. Surgical store room at supply chain department. Store room has shelves, pallets and cupboards. Space is limited.
3. Stores department at hospitals and clinics (supply chain).

**How is inventory managed?**

1. Inventory done in facilities monthly and in other sites items use re-order levels.
2. Dedicated staff allocated and supervised by SCM manager. No clear management of inventory exists.
3. Using stock cards.

**Do you report inventory status to the province? How?**

1. If requested.
2. Yes, submission of reports.
3. Probably not, stock is managed at facility level.

**Are there are SOPs? If yes, are they available at every facility and have they been trained?**

1. Yes. In all facilities with training, I think there are some gaps due to staff turnover.
2. Yes, training is done annually.
3. Yes, supply chain SOPs are available.

**Have you experienced a stock-out of any product in the last 12 months?**

1. No.
2. Yes.
3. Not sure.

**What are your biggest challenges impacting the functioning of the surgical sundries supply chain?**

1. It is the quality which is not up to standard. Storage.
2. Knowledge of surgical sundries and supplier who do not adhere to deliver schedule.
3. Storage space constraints.

## **Annex I: Workshop Questionnaire for Eastern Cape (Alfred Nzo & Amathole. No representation was sent from OR Tambo)**

### **Questions for Condom Supply Chain**

#### **What percentage of your time do you dedicate to condom management?**

1. Almost each and every time when going out for outreach events. Estimate 5 times a month. Make it a point that other departments are getting condoms from health department.
2. Once a week.
3. Once a month. Prevention manager at sub-district level more dedicated to look at storage , availability and distribution.
4. 40%
5. 30%
6. 90%
7. Group Discussion:

Alfred Nzo – 30%

Amathole – follow-up with reporting from sub-district once a month, sub-district handles most management of condoms

#### **Is condom management described in your job description?**

1. Yes.
2. Yes as one of the HIV Prevention programs that I supervise.
3. Yes, condom management is part of indicators looked at and monitored on a monthly and quarterly basis. Monitoring of condom distribution rate is part of workplan agreement.
4. Yes.
5. Yes.
6. Yes.

## 7. Group Discussion:

Alfred Nzo – yes

Amathole – not specifically

**How do condoms get to your district / facility?****– Are they delivered? If yes, who delivers them? How often are they delivered?**

1. Delivered by FSH or sometimes traditional outlets like NGOs and business sector are assisting in fetching the condoms for their facility
2. As I am at a provincial office, they are delivered.
3. Condoms are delivered to the facilities, sub-district also keep stock for facilities that run out. There is no set delivery date, but is according to need.
4. Yes, provincially.
5. They get delivered by the national department once or twice a month.
6. They are delivered by suppliers, sometimes through SFH assistance to sub-district storage. From sub-district they are delivered by prevention managers/supervisors to facilities.

## 7. Group Discussion:

Alfred Nzo – supplier delivers to sub-district PDS only 1-2 times a month. They have identified certain sites to be “PDS” in each sub-district.

Amathole – same as Alfred Nzo

**– Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?**

1. Yes, I pick up from the storage (district) whenever I am going to the events.
2. No.
3. No.
4. No.
5. No.
6. N/A

## 7. Group Discussion:

Coordinators pick them up

**Do you distribute condoms to other SDS or NTOs? If yes, how?**

1. Yes. Visit taverns, condom batches, sports activities, and other departmental activities and condom days as well as road shows.
2. No.
3. Delivery to NTO is done by SFH. Sub-district health promotion unit distributes to SDS and NTO.
4. Yes, whenever I have transport I go to our surrounding villages and distribute to taverns and spaza shops (assisting the facility near the area).
5. No.
6. Yes, through the use of community outreach teams.
7. Group discussion:

Alfred Nzo – the condom coordinator goes to facilities, picks up condoms and does outreach

Amathole – there is a dedicated vehicle at district level that goes to sub-district and distributes. NGOs like SFH pick up condoms and distribute to NTOs.

**Where are the condoms stored? Describe the space.**

1. Cool room on pallets. Not hot area and not dark places.
2. At a provincial level (storage room), at a sub-district level (storage room).
3. In facilities, dispensing areas, though space is a challenge. Other facilities have dedicated storage areas.
4. Facility dispensary, which is a cool dry area. Depot store rooms.
5. Not legible.
6. It differs amongst sub-districts, sites are using containers and others use a unidentified empty space with the hospital.

What is the maximum number of boxes (6,000 condoms per box) your storage space can hold?

14. 20-500 boxes
15. Left blank.
16. A minimum of 1 box is stored by all facilities in the District, depending on the size of the facility with high volume, they may store more than 1 box of 6,000.
17. Facilities (max 2 boxes), Depot (40 boxes).
18. 100 boxes per depot.
19. 20-500 boxes.

**How is inventory managed?**

1. We received condoms from Province and store in the facility storage.
2. Mainly use bincards.
3. Bin cards are used.
4. Bin cards.
5. Bin cards. Inventory is every month using LMIS bin cards to balance the condoms distributed and balance.
6. Through monthly reports that we receive from sub-districts. Bin cards to manage stock in and out at the provincial storage.

**Do you report inventory status to the province? How?**

1. Yes, LMIS once a month.
2. N/A
3. Status is reported by sub-districts to the Province. Stock-outs are reported by sub-district to district to province.
4. Yes, LMIS monthly report.
5. Yes, though the LMIS template.
6. Yes, monthly.

**How often are supervisory visits made to distribution sites?**

1. Once a month.
2. Left Blank
3. Monthly visits are conducted by clinic supervisors and their visits include an in depth supervision of all programs.
4. Once a quarter (74 clinics, 7 hospitals)
5. Every quarter.
6. We visit each at least twice a year.
7. Group discussion:

Alfred Nzo –the HAST and condom coordinator visit once a quarter. The clinic supervisors visit once a month (about 5 clinics each). The clinic supervisors don't submit reports to the province on their visits.

**How do you check each facility is reporting monthly?**

1. Through DHIS and reports.
2. DHIS.
3. Through DHIS, monthly verification of what is recorded on bin cards and the monthly input form.
4. They record to DHIS and I get that information from the District Information personnel.
5. DHIS every month.
6. Conduct date verification and thorough analysis of data on DHIS.
7. Group discussion:

When the province goes out, they submit reports.

**Are there are SOPs? If yes, are they available at every facility and have they been trained?**

1. Yes but old version of 2012.
2. No, only condom distribution plan.



3. No, only condom distribution plan is available in all facilities.
4. Left blank.
5. Left blank.
6. Yes, but still using 2012 SOPs
7. Group discussion:  
No updated SOPs.

**Have you experienced a stock-out of condoms in the last 12 months?**

1. No.
2. Left blank.
3. Yes, female condoms.
4. Yes, July.
5. Yes.
6. Yes, female condoms.
7. Group discussion:  
Yes, at both PDS and facilities. They ended up goes to a neighboring PDS with extra stock to cover their shortage.

**What are your biggest challenges impacting the functioning of the condom supply chain?**

1. Limited funds, poor processing of orders by supply chain management. Storage for big amounts.
2. Storage, transport and data (incomplete bincards)
3. Not directly involved with supply chain as condoms are delivered by SFH. Facilities are experiencing storage challenges. Unavailability of air conditioners. Transport to sites.
4. Left blank.
5. Condom supply depends on National and Province and are distributed to each facility depending on what they believe is enough. Condoms are not supplied based on demand. Transport is not straight to the facilities.

6. Lack of storage space. Poor recording of information/distribution. SCM takes too long to generate provincial orders. Eastern Cape does not have enough suppliers under current contract. Insufficient funds allocated to condom program.

7. Group discussion:

Alfred Nzo – forecasting, distribution is done by push, transportation from PDS to facilities is not available, data is not accurate.

Amathole – Storage space and transportation

Province – having issues getting suppliers to deliver regularly because they give priority to other provinces that are closer.

National – national level wants PDS to track condoms by color on one bin card, which everyone in the workshop agreed would not work.

## **Questions for Reproductive Health Commodities Supply Chain – Hormonal & Pharmaceutical**

**What percentage of your time do you dedicate to RH management?**

1. Daily. Fair amount of time spent on procurement and distribution of pharmaceuticals.
2. 25%
3. 40%

**Is RH management described in your job description?**

1. Yes. Ensure stock availability, proper storage and distribution.
2. Yes.
3. Yes.

**How do these RH products get to your district / facility?**

- **Are they delivered? If yes, who delivers them? How often are they delivered?**

1. Delivered, yes. The depot using Skynet as per depot delivery schedule.
  2. Delivered to each facility by the courier company Skynet from the Central Medical Depot in the Umtata each month.
  3. Delivered by bakkie from PE/Umtata Depot monthly.
- **Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?**
1. Special or emergency orders are collected from depot or other facilities (if excess stock).
  2. No.
  3. No.

**Where are these RH products stored? Describe the space.**

1. In the pharmacy, on shelves as regulated.
2. Pharmacy store in each facility and in the consulting rooms.
3. In the dispensary and consulting rooms.

**How is inventory managed?**

1. Using stock cards, FEFP principles
2. Use bin cards monthly by the facility. By the sub-district pharmacist every quarter. They do it with HR, supply chain, finance and pharmacy assistants.
3. Bin cards.

**Do you report inventory status to the province? How?**

1. Yes, reports via email to pharmaceutical sources sent. SMS can be sent reporting stock outs. Quarterly stock take.
2. It is reported by the sub-district pharmacists to the supply chain manger, not to the province.
3. No.

**How often are supervisory visits made to the sites receiving these RH products?**

1. If PHC level – monthly visit by sub-district pharmacist, also clinic supervisors. All other levels, upwards, there is a resident pharmacist.
2. It is supposed to be every month by the clinic supervisors and every quarter by the program coordinator. Unfortunately there is no transport so support visits are not as often as they should be.
3. Monthly / bi-weekly. Depends on how far the facilities are.

**How do you check each facility is reporting monthly?**

1. Through DHIS. Monthly verification of bin cards and monthly input forms.
2. Yes in the DHIS and data verification meetings and support visits.
3. Through DHIS.

**Are there are SOPs? If yes, are they available at every facility and have they been trained?**

1. Yes.
2. Yes there are. SOPs and one professional nurse was trained in each facility in the 2012 contraception and fertility guidelines.
3. Yes.

**Have you experienced a stock-out of any product in the last 12 months?**

1. All items in stock.
2. No.
3. No except that they don't order IUCD.

**What are your biggest challenges impacting the functioning of the RH supply chain?**

1. If an item is not awarded on contract forces the depot to buy on quotation which results in stock outs and inflated prices. Also there are misconceptions and myths about implanon and IUDs which are causing overstocks.
2. Delivery of RH supplies from the central medical depot.
3. Left blank.
4. Group Discussion:

Excess of Implanon and IUDs. Could be due to insertion issues. Many people who get them then request to have them taken out.

All items are not on contract – Biphasil

They are using “WhatsApp” to inquire whether other facilities / districts have excess stock to cover any shortages.

## **Questions for Reproductive Health Commodities Supply Chain – Surgical Sundries**

### **How are surgical sundries procured?**

1. From medical depots.
2. It is done at provincial offices. Facilities and hospitals are ordering vaginal specular.
3. Facility orders some. Vaginal speculums are ordered by the program coordinator for all the clinics. Hospitals order for themselves.

### **Are they purchased on a national contract or provincial contract?**

1. There is a national contract, however other items are bought on quotation via depots.
2. Provincial contract.
3. Provincial contract and national contract.

### **How do the surgical sundries get to your district / facility?**

- **Are they delivered? If yes, who delivers them? How often are they delivered?**
  1. Yes, by Skynet, as per depot delivery schedule, depending on size of institution/facility. (clinics - at least once a month, district hospitals - twice a month)
  2. They are taken by their own vehicles when there is a need and by supplier and courier.
  3. Delivered by the supplier and depot items are delivered by the courier Skynet from the central medical depot.
  
- **Do you pick them up? If yes, where do you go to pick them up? How often do you pick them up?**
  1. Special or emergency orders may be collected from the depot or another facility (if excess stock).
  2. Pick them up from province.
  3. No.

**Where are the surgical sundries stored? Describe the space.**

1. Other facilities have surgical stores with shelving operated by non-pharmacists. Other, due to space, are kept with pharmaceuticals in the pharmacy.
2. In a store room.
3. Facility store room in all the 59 health facilities at Umzimulbe sub-district

**How is inventory managed?**

1. Stock cards are used.
2. There is a book for recording & bin cards.
3. Bin cards, monthly by the facility. By the sub-district by pharmacists every quarter.

**Do you report inventory status to the province? How?**

1. Yes, once a month. Mainly out of stocks (monthly). Quarterly stock takes.

2. Yes.
3. Yes, sub-district pharmacists to the supply chain manager and not to the province.

**Are there are SOPs? If yes, are they available at every facility and have they been trained?**

1. Yes.
2. Yes.
3. Yes, they are available in each facility.

**Have you experienced a stock-out of any product in the last 12 months?**

1. Yes.
2. Yes. 2ml syringes.
3. 2ml syringes.

**What are your biggest challenges impacting the functioning of the surgical sundries supply chain?**

1. Mixed model in management of surgical sundries poses a challenge as pharmacists may not be best suited to manage surgical items (proper training needed or should be done by nurses). Different ICN numbers of same items.
2. No.
3. None.
4. Group Discussion:

Pharmacists are wondering whether they should be managing surgical sundries and condoms? They feel pharmacy assistants should be doing this.