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## ZAMBIA: FAMILY PLANNING QUANTITATIVE AND QUALITATIVE LOGISTICS SYSTEM ASSESSMENT, MARCH 2008

LIAT AND LSAT RESULTS



**MARCH 2008**

This publication was produced for review by the U.S. Agency for International Development. It was prepared by the USAID | DELIVER PROJECT, Task Order 1.



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### **Abstract**

The Zambian Ministry of Health (MOH) and partners have recognized that a sound logistics system is critical for achieving the continuous availability of family planning commodities at health facilities. As a result, attention and resources have been allocated to strengthen the FP logistics system. Key steps have also been taken to ensure the availability of other public health commodities (specifically HIV/AIDS), including the design and implementation of logistics systems, training of health workers on logistics and the provision of technical expertise.

In 2008 a Logistics System Assessment and Stock Status Survey was conducted to provide the MOH, USAID/Zambia, and other stakeholders with information on the availability of family planning commodities and logistics information at the district and health facility levels. This comprehensive assessment of the logistics system consisted of both quantitative and qualitative data collection using two separate data collection tools: the Logistics Indicators Assessment Tool (LIAT) and the Logistics System Assessment Tool (LSAT). Specific assessment objectives included assessing selected inventory control procedures and logistics management practices (i.e., ordering, transport and distribution, supervision, etc.) within the system; and collecting data on stockout rates, stockout frequency and duration, consumption/issue rates, current stock on hand, and storage conditions. The commodities included in this study are family planning and selected emergency obstetrics commodities. Together with subsequent assessments, this study will allow the MOH and its partners to monitor progress over time and to adjust the logistics system as necessary.

Cover photo: Local public health sign near Livingston, Zambia, March 2008.

## **USAID | DELIVER PROJECT**

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# CONTENTS

- Acronyms..... v
- Acknowledgments ..... vii
- Executive Summary ..... ix
- Background..... xi
- Assessment Methodology ..... 1
  - Logistics Indicators Assessment Tool (LIAT) ..... 1
  - Logistics System Assessment Tool (LSAT)..... 3
- Assessment Findings..... 5
  - Logistics Records..... 5
  - Stock Availability by Product Type..... 15
  - Stock Status for Contraceptives ..... 16
- GIS Spatial Analysis..... 29
- Conclusions..... 35
- Recommendations ..... 37
- Appendices**
- 1. Logistics Indicators Assessment Tool (LIAT) for RH Commodities, Zambia 2008..... 39
- 2. List of LIAT Data Collectors..... 63
- 3. List of Facilities Surveyed ..... 65
- 4. Participant List for LSAT Activity..... 69
- 5. Logistics System Assessment Tool (LSAT) for FP in Zambia ..... 73
- 5. Logistics System Assessment Tool (LSAT) for FP in Zambia ..... 73
- 6. Participant List for LIAT/LSAT Debriefing Meeting..... 125
- Figures**
- 1. Use of Forms to Manage FP Products by Facility Types ..... 6
- 2. Forms Used for Reporting by Facility Types..... 7
- 3. Reports with Logistics Information by Facility Types ..... 8
- 4. Commodity Managers’ Completion of Forms and Reports by Facility Types ..... 9
- 7. Types of Transportation Used for Delivering the Products ..... 12
- 8. Utilization of Stock Control Cards to Manage FP Products by Facility Types..... 14
- 9. Stock Control Cards Updated for FP Products by Facility Types ..... 15
- 10. Contraceptive Stockouts on the Day of the Visit ..... 17

11. Contraceptive Stockouts from October 1, 2007 to December 31, 2007.....	18
12. Duration of Contraceptive Stockouts.....	19
13. Months of Stock on Hand for Male Condoms by Facility Type.....	20
14. Months of Stock on Hand for Oralcon-F by Facility Type.....	20
15. Stock Cards Availability of RH Products.....	22
16. Stock Out on the Day of Visit for RH Products.....	23
17. Storage Conditions at Health Facilities.....	24
18. LSAT Section Scores.....	26
19. Summary of Supervisory Visits to SDPs.....	29
20. Stockouts of Male Condoms from October 1 to December 31, 2007.....	30
21. Stockouts of Short-Term Methods on the Day of the Visit.....	31
23. Stockouts for Short-term Methods from October 1 through December 31, 2007.....	33

**Tables**

1. List of Indicators.....	2
2. Contraceptives Managed at Health Facilities.....	13
3. RH Product Management by Facility Types.....	21

# ACRONYMS

AIDS	acquired immune deficiency syndrome
ARV	antiretroviral
DFID	Department for International Development
DH	district hospital
DHO	district health office
FEFO	first-to-expire, first-out
FP	family planning
GIS	geographic information system
GRZ	Government of the Republic of Zambia
HC	health center
HIV	human immunodeficiency virus
IUD	intrauterine device
IV	intravenous
LIAT	Logistics Indicator Assessment Tool
LMIS	logistics management information system
LSAT	Logistics System Assessment Tool
LMS	logistics management system
LMU	Logistics Management Unit
MOH	Ministry of Health
MSL	Medical Stores Limited
NGO	non-governmental organization
PATH	Program for Appropriate Technology in Health
PMTCT	preventing mother-to-child transmission
RH	reproductive health
RHC	rural health center
RHCS	reproductive health commodity security
SDP	service delivery point
SOP	standard operating procedure
SPSS	Statistical Package for the Social Sciences

UHC	urban health center
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
UTH	University Teaching Hospital
WHO	World Health Organization
ZHDS	Zambia Demographic and Health Survey

# ACKNOWLEDGMENTS

The authors gratefully acknowledge the support given to this activity by the Government of the Republic of Zambia (GRZ) and Ministry of Health (MOH), UNFPA, the Logistics Management Unit (LMU) and staff at the Medical Stores Limited (MSL), and the health facilities that directly participated in the survey.

We express our profound gratitude for the efforts made by these groups. The success of the health system in Zambia—especially in our core area of commodity logistics system improvements—depends on the collaboration and goodwill of all participants in the effort to overcome challenges.

The continuance of positive attitudes will help Zambia to realize the aim of effective and efficient distribution of health commodities to every facility in the country, and to ensure that every citizen has access to the necessary health commodities required for family planning. To realize this goal and to improve the logistics system, timely and accurate data is needed from each health facility and district store.

We also thank all of the data collectors who carried out the field work with dedication.

Finally, our appreciation goes to the U.S. Agency for International Development for its continuous support and assistance.



# EXECUTIVE SUMMARY

This assessment applied the Logistics Indicator Assessment Tool and the Logistics System Assessment Tool, as well as a GIS mapping tool. The observations included an assessment of logistics records and reports, supervision, storage conditions and stock availability.

A culture of record-keeping and reporting existed in the family planning program both in health facilities and DHOs. Yet, availability of records and reports with essential logistics data items such as stock on hand, consumption, and losses and adjustments were not high. Within the program, the utilization of logistics records and reports was rarely found in combination. The discussion during the LSAT revealed a very weak LMIS system for family planning, with scoring less than 10 percent. This is substantiated by the survey finding of a low rate of inclusion of essential logistics data in the reports. The finding also draws attention to the training of logistics managers on record keeping and reporting, and the supervision facilities receive in logistics management. Around 70 percent of the respondents from the health facilities reported receiving either on the job or workshop training and a similar percentage reported a recent supervisory visit. Yet, the observations made in the field with regards to record keeping and reporting raise questions about the level of the training and supervision. These indicators were self reported, and could be subject to over-statement. Apart from this, it is likely that many of the managers did learn to complete the forms, but as the system is weak, commodity managers did not feel compelled to keep the logistics records properly. With regards to supervision, the GIS mapping shows that the supervisory visits were concentrated in two provinces, while in other areas the visits were rather random.

Overall storage conditions were found to be good across the surveyed facilities with DHOs fairing a little better. Insufficient storage space and maintaining appropriate temperature seemed to be the major challenges facing both health centers and DHOs. LSAT discussants also expressed similar concern.

The stock availability indicator varied by the types of products, but not much between DHOs and health facilities. Across the facilities, stockout on the day of visit was common for most of the products, except for male condoms and Oralcon-F. To further investigate the availability of a contraceptive method mix for the clients, a mapping of method mix (availability of all three short-term methods: male condom, Oralcon F and injectable) across the health facilities was conducted in order to capture correlation between DHOs and health centers with respect to stockouts. The survey collected stockout data at two points of time, which provided an opportunity to observe changes over time. During the period October 1 to December 31, 2007 in two of the four surveyed provinces, both DHOs and health facilities experienced stockouts, which offers explanation for stockout situations in the health facilities. However, the interesting find was that in the other two provinces, during the same time period, most of the surveyed DHOs had the products of interests, while the majority of the health facilities experienced a stockout indicating a wider issue than not having the products at the sources. The situation with regards to choice of products did not improve over time as observed on the day of visit, with a similar pattern of stockouts indicating a system-wide product shortage. Finally, the months of stock on the day of the visit were estimated for male condoms and Oralcon F. For other products, this estimation could not be done as the products were either stocked out on the day of the visit or consumption data were unavailable.



# BACKGROUND

The 1980, 1990, and 2000 Zambia national censuses reported total populations of 5.7 million, 7.8 million and 10.3 million, respectively, with a growth rate of 2.9 percent per annum in 2000. The ever increasing population of Zambia demands many health needs that must be provided by the government, including reproductive health. The 2007 ZDHS data indicate that 41 percent of married women reported that they were currently using a method of family planning, 32.7 percent of whom are currently using modern methods. Contraceptive use in Zambia has increased over the past decade from 15 percent in 1992 to 26 percent in 1996 and from 34 percent in 2001- 2002 to 41 percent in 2007.

The challenges facing the family planning system are great and multiple: Sustainable financing; family planning contraceptive procurement, storage, distribution and regulatory mechanisms; skilled health care workers; infrastructure improvement; while one in three currently married women has an unmet need for family planning.

The Government of the Republic of Zambia (GRZ) is highly committed to addressing the unmet need for family planning. GRZ has put in place the National Population Council to coordinate national multi-sectoral response, and the National Population Policy as a legal framework for regulation. The MOH is responsible for the health sector response, and among other things, sets health policy related to family planning. The Ministry of Health is committed to ensuring contraceptive and RH commodity availability at all levels. MOH recognizes the challenges currently being faced to ensure this goal is met. The need to strengthen the Logistics Management Information System (LMIS) has been identified and this need was presented at the Reproductive Health Commodity Security Committee meeting in 2007. Cooperating partners are willing to continue supporting procurement of contraceptives and strengthening the LMIS. USAID has contracted with the USAID | DELIVER PROJECT to assist the MOH to improve family planning logistics management. In collaboration with DELIVER, UNFPA, WHO and other stakeholders, MOH conducted a national forecast of contraceptive needs for 2008 to 2010. The next step was to conduct a baseline assessment of family planning logistics management. The purpose was to examine the current LMS for contraceptives with a view to identifying components that need strengthening. The results of this baseline assessment are presented in this report.



# ASSESSMENT METHODOLOGY

The comprehensive assessment of the logistics system consisted of both quantitative and qualitative data collection using two separate data collection tools: the Logistics Indicators Assessment Tool (LIAT) and the Logistics System Assessment Tool (LSAT). Preliminary results, which included key indicators related to logistics status of family planning and reproductive health products, were shared with MOH, USAID and other stakeholders at a debriefing in Lusaka.

## **LOGISTICS INDICATORS ASSESSMENT TOOL (LIAT)**

The LIAT, a quantitative data collection instrument developed by DELIVER, was used to conduct a facility-based survey to assess health commodity logistics system performance and commodity availability. For the purposes of this assessment, the LIAT was tailored specifically for Zambia and used to assess major contraceptives and selected reproductive health products. A copy of the final LIAT used for the purposes of this survey is attached as Appendix 1.

## **SAMPLE METHODOLOGY**

The study was conducted in four of the nine provinces in Zambia. In the first stage of sampling, the provinces were selected purposively by the JSI in-country staff in consensus with Ministry of Health, UNFPA and WHO. The four selected provinces were: Lusaka, Luapula, Northwestern, and Southern. In the second stage, 10 districts were selected applying probability proportion to size method determined by the number of clinics in each districts. In the third stage, a total of 80 sites (70 health facilities and 10 district health offices) were selected using systematic random sampling, ensuring higher representation of facilities from the districts with higher number of health centers. The total sample of health facilities (70) was allocated proportionately to rural health centers (RHC), urban health centers (UHC), district hospitals and NGO run health centers. A number of sample sites which were inaccessible due to recent flooding were substituted with randomly selected sites from the same district.

The team visited the following sample sites:

- 10 District Health Offices
- 4 District Hospitals
- 56 Rural Health Centers
- 8 Urban Health Centers
- 1 NGO Health Facility

A list of all health facilities visited is attached as Appendix 3, while a list of the data collectors that carried out the survey is attached as Appendix 2.

Due to resource constraints, the sample size was relatively small. As probability proportional to size sampling method was employed, most of the sampled facilities were rural health facilities. The smaller representation of other types of health facilities did not allow exploring relevant indicators

by facility types. Some randomly selected sites which were hard to reach, a condition worsened by the flooding, were in some cases replaced by areas with better accessibility, thus inherently introducing a selection bias in the survey. This bias could be minimized in the future by selecting the same facilities for any follow-up survey.

## INDICATOR CHOICE AND INSTRUMENT DEVELOPMENT

The data collection instrument used for the survey was a modified version of the LIAT developed by the USAID | DELIVER PROJECT. The number and type of indicators being assessed were selected to ensure that meaningful baseline metrics were measured for use in comparison to future assessments, while also providing stakeholders with up-to-date information on the current operation of the system.

**Table 1. List of Indicators**

<b>Indicator</b>	<b>Data Source(s)</b>
1. Percentage of facilities with stock cards available for managing contraceptives.	Presence of stock cards for each of the selected products.
2. Percentage of facilities with stock cards updated by product.	Stock cards for each of the selected products.
3. Percent of facilities with accurate logistics records.	Stock cards, family planning register, tally sheet, stock control book.
4. Percentage of facilities utilizing reports with logistics information.	Monthly and Quarterly Summary reports
5. Percentage of personnel trained in product management and type of training received.	Respondent.
6. Percentage of facilities receiving supervision within a reasonable amount of time.	Percentage of facilities receiving supervision within a reasonable amount of time.
7. Percentage of transportation type used for logistics management	Respondent.
8. Percentage of sites stocked out of product at time of visit.	Stock card records, respondent, and physical inventory.
9. Percentage of sites stocked out of product in last 3 months.	Stock card records.
10. Average number of days stocked out in 3 months.	Stock card records.
11. Percentage of sites stocked according to plan; months of supply on hand.	Average monthly consumption, physical count of product at health facility, and min/max of 1/2 months at health facilities, and min/max of 1/3 months at DHOs.
12. Percentage of storage facilities that met selected storage conditions.	Observations of data collectors on the day of the visit.
13. LSAT Section Scores.	Results of the LSAT discussion group.

## **LIAT DATA COLLECTION**

Before implementing the survey, data collectors participated in a four-day training course instructing them on the use of the LIAT instrument. As part of the orientation, data collection guidelines were discussed to identify the types of information to be gathered, to standardize the data collection process, and to promote comparability of results. At this time, input from survey team members was integrated into the survey tool; which was then pilot tested in three health facilities in Lusaka Province. After the pilot test, modifications were made to the tool prior to its use in the assessment.

A total of five teams, consisting of two trained data collectors, were dispatched to different provinces for a two-week period to collect data from the selected health facilities. Each team was comprised of JSI staff and an MOH or UNFPA representative. Each team was joined by district personnel from the DHO while visiting health facilities in a particular district.

Following data collection, data were entered into statistical analysis software (SPSS) for analysis. As part of an ongoing process, further cleaning of the data and verification of the preliminary analysis was conducted in Washington, DC for final analysis and report writing.

## **LOGISTICS SYSTEM ASSESSMENT TOOL (LSAT)**

The LSAT is the second of the two data gathering tools developed by DELIVER and used in Zambia to assess the health commodity logistics system and provide contextual information about the environment within which the family planning system operates. The LSAT is a comprehensive, qualitative, diagnostic and monitoring tool from which strengths and weaknesses of the logistics system are identified in a group discussion format, involving participants from all levels of the health system. The information collected using the LSAT is analyzed to identify issues and opportunities and, from those, to outline appropriate work plan activities and/or targeted interventions. A copy of the LSAT completed during this assessment can be found as Appendix 5.

## **LSAT DATA COLLECTION**

The LSAT was conducted as a one-day workshop with 31 participants, including representatives from all levels of the Ministry of Health and key stakeholders from several other organizations involved in contraceptive including NGO, UNFPA and WHO national representatives. See Appendix 4 for a list of LSAT participants.

The areas assessed included organization and staffing, logistics management information system, product selection, forecasting, obtaining supplies/procurement, inventory control procedures, warehousing and storage, transport and distribution, organizational support for the logistics system, product use, and finance/donor coordination and commodity security. Each section was scored to allow for tracking of progress over time, for the identification of strengths and weaknesses, and for helping managers to focus on areas of concern.



# ASSESSMENT FINDINGS

The LIAT and the LSAT yielded both quantitative and qualitative data that together provide a comprehensive picture of Zambia's family planning commodity logistics system in February 2008. The findings from each of these assessments provide information on the current family planning logistics system as well as provide a baseline for future assessments.

## **LOGISTICS RECORDS**

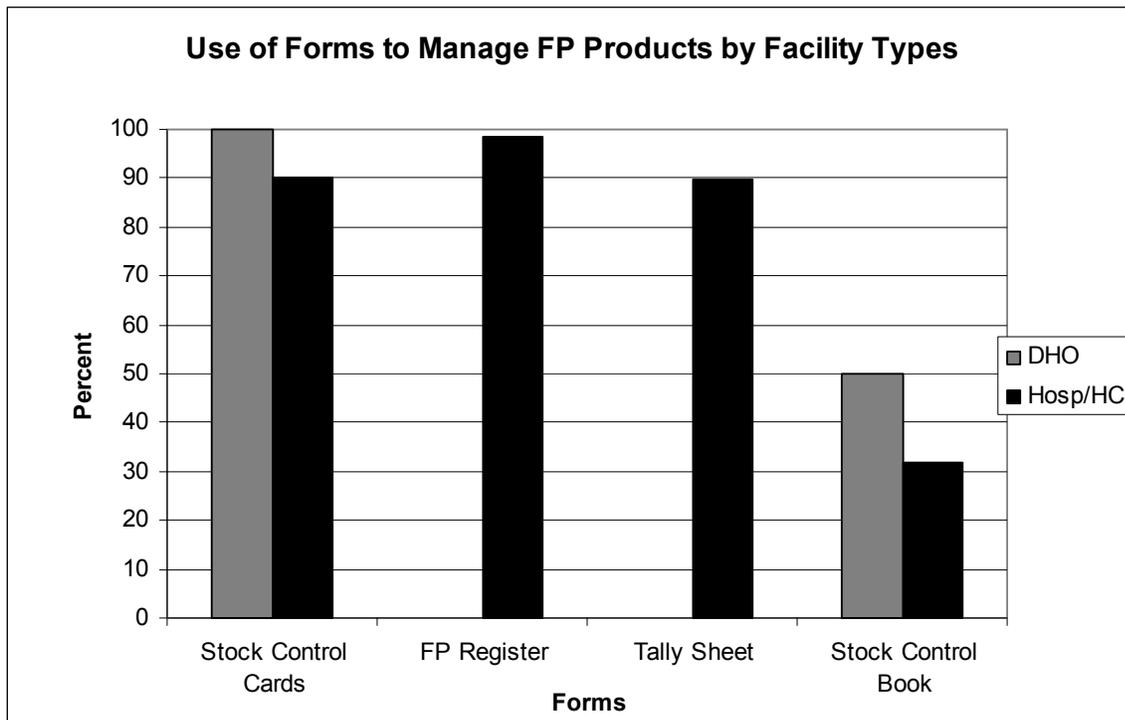
Logistics records serve as the backbone of every logistics system. They are designed to capture critical logistics data at each level of the health system. The data captured on logistics records are then brought together to form logistics reports used for crucial decision making about resupply quantities, forecasting and procurement.

## **UTILIZATION OF LOGISTICS RECORDS**

### **Stock Cards**

The stock card, the most fundamental of all logistics records, captures essential inventory data such as stock balance, receipts, issues/consumption, and losses/adjustments. Therefore, utilization of stock cards was identified as an important indicator to assess logistics system performance. Figure 1 illustrates the percentage of facilities that use stock cards to manage health commodities, by type of facility. Three additional record keeping forms were also identified during the field testing of the tool: the family planning register, the tally sheet and stock control books. Percentage distributions of these forms are also shown in Figure 1.

**Figure I. Use of Forms to Manage FP Products by Facility Types**



\* FP register and Tally sheet are not utilized at DHOs, as these forms mainly capture patient information

Almost all of the surveyed facilities reported to use stock cards in the management of family planning products. In addition to stock cards, use of the FP register and tally sheet were also high. However, it became evident from the survey that the facilities were using these additional records mainly to capture service statistics, as opposed to managing logistics data.

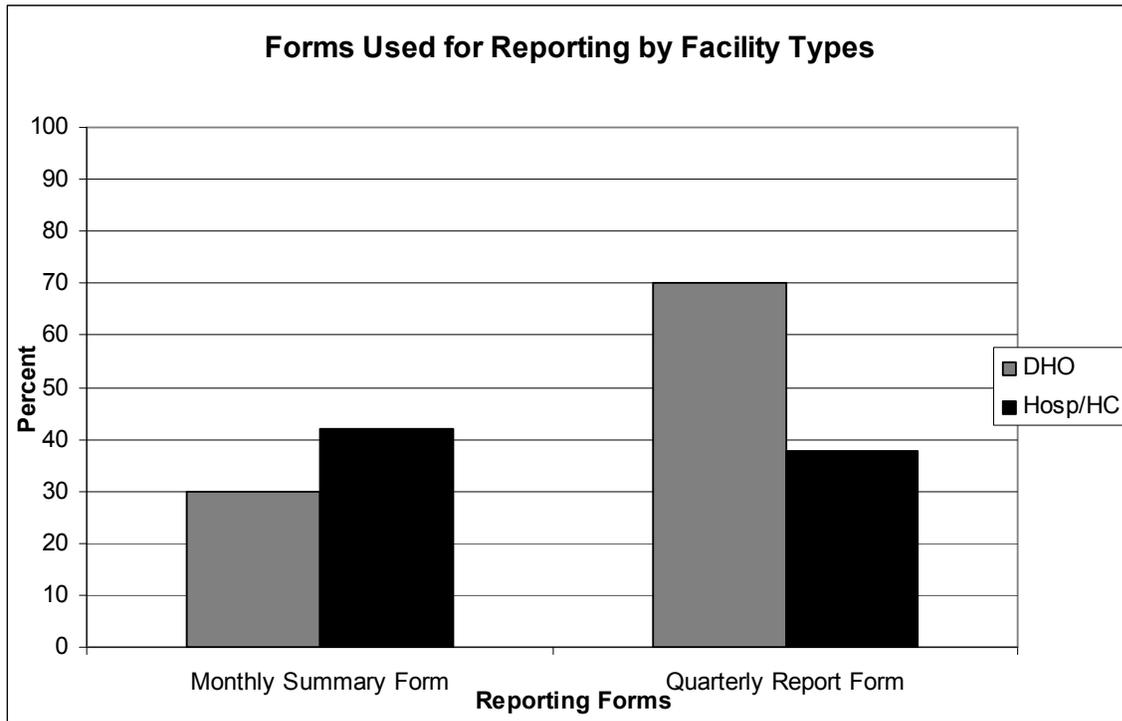
## **LOGISTICS REPORTS**

### **Percentage of Facilities Utilizing Reports with Logistics Information**

The reported information needed for proper commodity management includes stock on hand, amount dispensed to clients, and any losses and adjustments. These three essential data items constitute the foundation of a functional and effective logistics system and are the basis of all logistics decision making. Therefore, it is critical that these data be supplied to decision makers at all levels of the health system. Consequently, the percent of facilities submitting logistics reports was chosen as an indicator of logistics system performance.

Figure 2 and Figure 3 illustrate the types of reports submitted and types of available logistics information respectively.

**Figure 2. Forms Used for Reporting by Facility Types**



Monthly summary report forms and quarterly reports were the most commonly mentioned reports. Quarterly reports were most commonly used by the DHOs. However, it should be noted that though a culture of reporting was present, the percentage of health facilities actually using either a monthly or a quarterly form for reporting was less than 50 percent.

**Figure 3. Reports with Logistics Information by Facility Types**

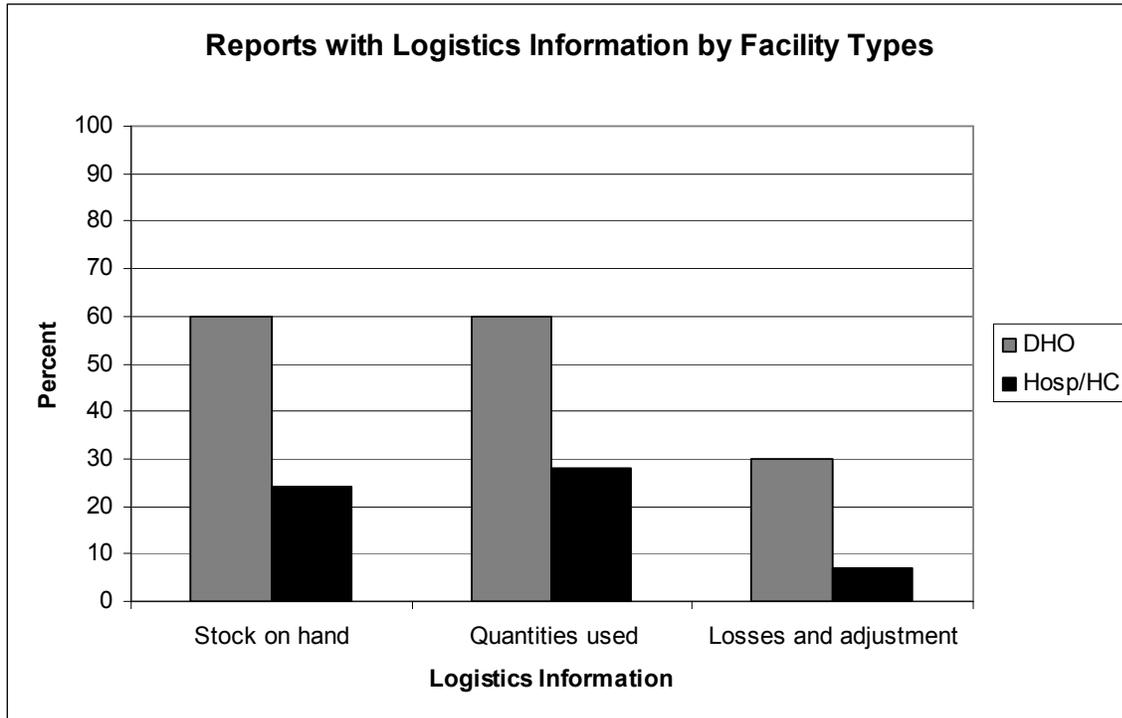


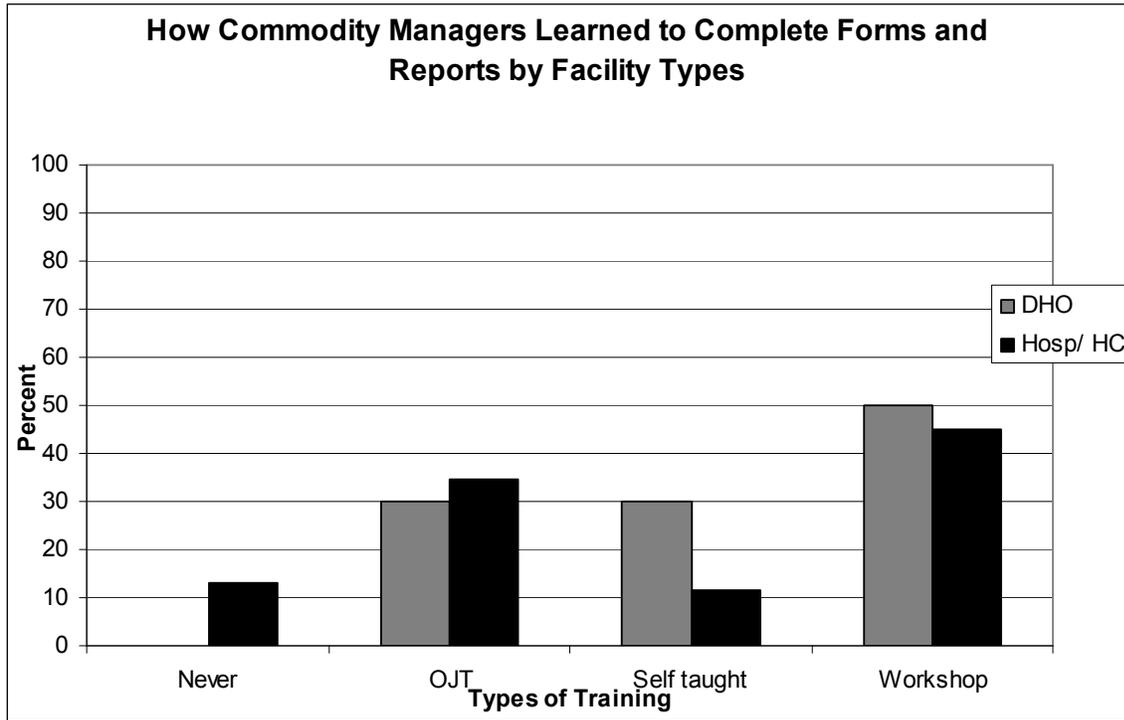
Figure 3 illustrates what essential logistics data items were included in the reporting forms. The practice of capturing and utilizing logistics information through the commonly used reporting forms was found to be quite low—below 30 percent—for health facilities. Nearly 60 percent of the DHOs reported stock on hand and quantity issued to be in the reports. However, information regarding losses and adjustment which is important for reducing wastage of products was very seldom reported.

## **PERSONNEL**

### **Training on Logistics Management**

In every logistics system, personnel managing commodities will require training in the use of logistics forms and reports. Training through a logistics workshop provides the most focused and most efficient means with which to build the capacity of health facility personnel. However, financial constraints can limit the use of this organized training on a large scale. Consequently, many personnel are trained on logistics activities by another staff member while on the job. Additionally, some personnel receive various levels of logistics training during their schooling, while other personnel rely on self-teaching to master the use of logistics forms and reports. Figure 4 illustrates how respondents learned to complete logistics forms and reports. It should be noted, training on logistics forms and reports was self-reported and individual forms were not specified. As a result, training on logistics forms may be overstated and may not be representative of training on all logistics forms and reports.

**Figure 4. Commodity Managers' Completion of Forms and Reports by Facility Types**



\* Multiple responses allowed

Regardless of the type of the facility, the majority of respondents learned to complete logistics forms and reports while attending a training workshop. On-the-job training was also reported at 30 to 35 percent of the facilities. However, a major concern was 13 percent of the health facilities visited never learned to fill out the logistics forms.

## **SUPERVISION**

Supervision, an important element of quality assurance for the performance of any logistics system, is related to all aspects of logistics management. Supervision helps to improve individual and system performance and can alert managers to potential problems such as stockouts, understocks and overstocks, poor storage conditions, and products near their expiry dates. Frequency of supervision is an essential element and therefore identified as a useful indicator in assessing the potential quality of system management and its effect on system performance. Supervision also presents an opportunity to reinforce new systems and forms.

**Figure 5. Recent Supervision Containing Drug Management**

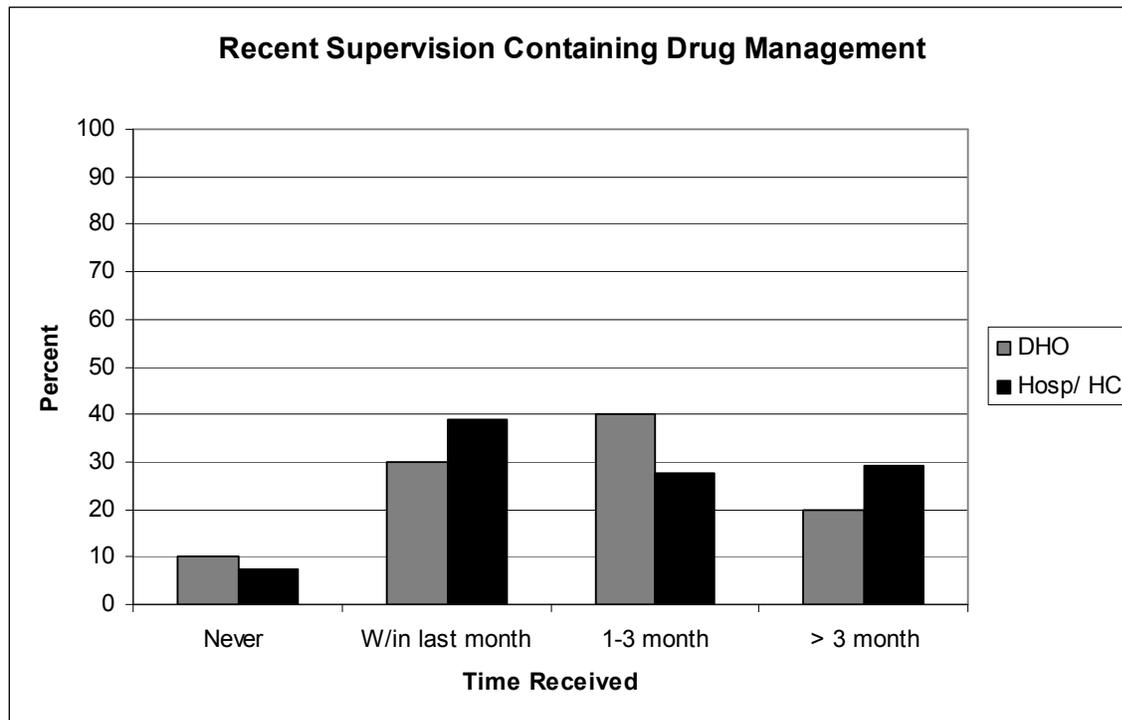
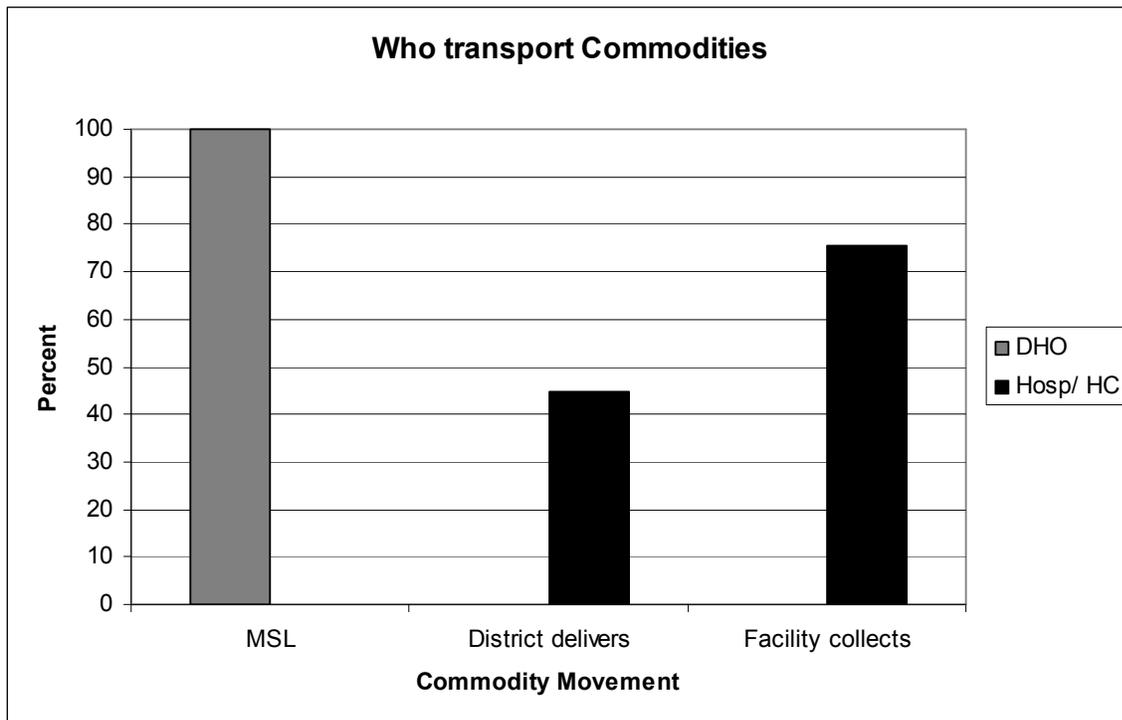


Figure 5 illustrates the timing of the supervisory visits which included assessment of drug logistics management of FP products. A majority of the DHOs and health facilities reported to have received supervisory visits within the last three months of the survey. However, a quarter of the health facilities and 2 of the DHOs (20 percent) received their last supervisory visits more than 3 months ago, while one DHO had never received a visit.

## **TRANSPORTATION AND DISTRIBUTION**

Fundamental to the success of a health logistics system is the ability to reliably move commodities through the supply chain so they are available for use at health facilities when needed. In Zambia, the transport network is generally good from the central level to the districts, with most roads tarred. This however is not the case from the districts to most health centers where the road network is poor and can be impassable during heavy rains. The rural health centers are most affected compared to the urban health centers. These factors—along with the long distances from the DHO to the health centers, in some cases over 200km— negatively impact the accessibility to health facilities. Figure 6 demonstrates the percentage of facilities that receive commodities via a scheduled delivery from a higher level versus the percentage of facilities that collect their needed commodities.

**Figure 6. Who Transports Commodities**

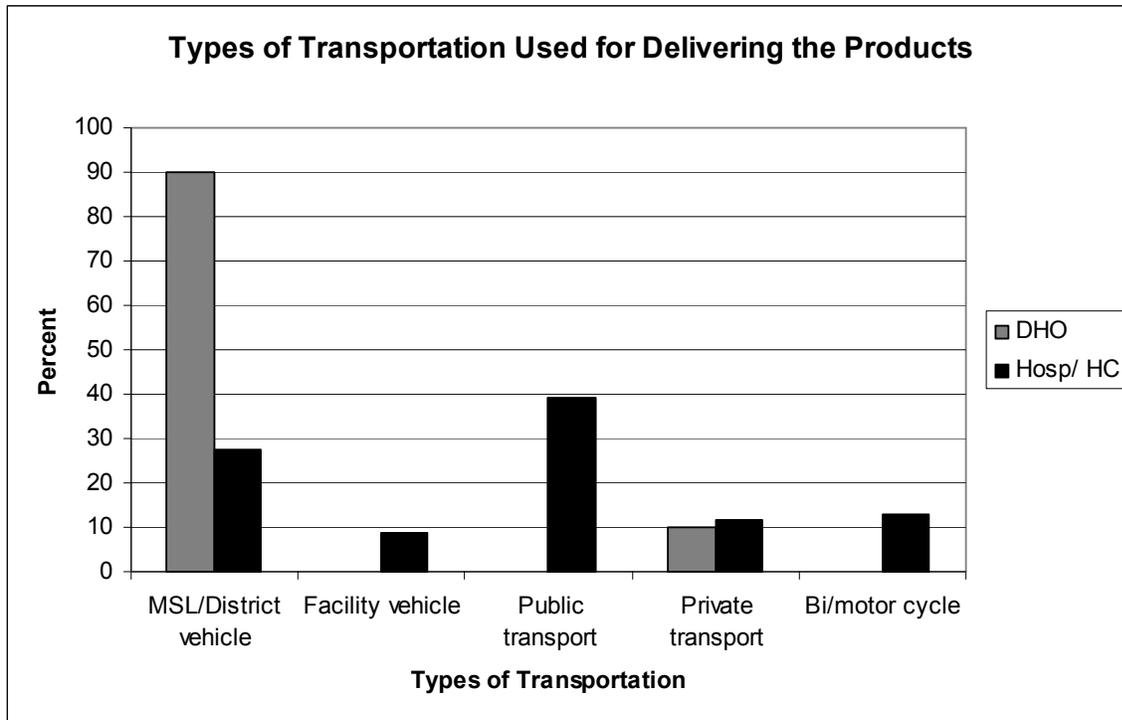


Multiple responses allowed.

Medical Stores Limited (MSL) delivers the family planning products to the DHOs and hospitals on a monthly basis. It is thereafter the responsibility of the DHO to distribute family planning products to the health centers. For health centers, a combination of systems exists. The district delivers and where not possible, the health center collects family planning products from the DHO. Seventy percent of the facilities reported that they collected the products and over 40 percent reported that DHO delivers. However, further inquiry revealed that it was mainly drug kits that the DHOs were delivering. Thus, it could be concluded that the responsibility of collecting the majority of contraceptives currently lies mainly on the facilities.

The following graph illustrates the type of transportation most typically used to collect family planning products.

**Figure 7. Types of Transportation Used for Delivering the Products**



Since MSL is the key responsible party for sending products to the DHOs, MSL vehicles are found to be the primary transporter of contraceptives to the districts. For health facilities, the most common method (39 percent) of transporting products was public transport. Around a quarter of the surveyed health facilities reported to have received deliveries by district vehicles. It is important to note that over ten percent of the facilities reported that they used bicycles or motorcycles to collect family planning products.

## PRODUCT MANAGEMENT

In this survey, stock status assessment was conducted for eight different family planning products, including both short and long term methods. Since the survey sample included different levels of health facilities, it was expected that not all products would be managed in all facilities. The following table shows the distribution of family planning product management by types of facilities. For this particular indicator, the type of facility is broken down into four categories: district health office (DHO), district hospital (DH), rural health center (RHC) and urban health center (UHC). Please note that for the subsequent indicators, surveyed facilities are being grouped into two categories of all health facilities and DHOs.

**Table 2. Contraceptives Managed at Health Facilities**

<b>Products</b>	<b>Health Facilities</b>							
	<b>DHO (10)</b>		<b>District Hospital (4)</b>		<b>Rural Health Center (56)</b>		<b>Urban Health Center (9)</b>	
	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>
Male Condoms	100	10	100	4	100	56	100	9
Female Condoms	60	6	50	2	58.92	33	77.77	7
Oralcon-F	100	10	75	3	100	56	100	9
Microlut	90	9	75	3	71.42	40	77.77	7
Depo Provera	90	9	100	4	76.78	43	100	9
Noristerat	100	10	75	3	85.71	48	88.88	8
IUD	30	3	50	2	1.78	1	55.55	5
Jadelle	30	3	75	3	0	0	22.22	2

According to Table 2, it is evident that male condoms, Oralcon-F and Depo Provera are the three most common products managed in all facilities. Although district health offices reported managing most of the products, only 3 of the 10 DHOs managed IUD and Jadelle. District hospitals (DH) and urban health centers (UHC) managed a greater variety of products as compared to rural health centers and the availability of IUD and Jadelle was practically nil in the rural health facilities.

### **Percent of Facilities with Stock Control Cards Available**

The value in logistics records lies in the extent to which they are used appropriately and consistently. In the case of stock cards, inventory information kept on the stock cards allows facilities themselves as well as managers throughout the health system to make informed decisions about what and how much to order each month. Consistent and accurate use of stock cards is essential to successful inventory management. Consequently, the percentage of facilities with stock cards available and updated was also identified as an important indicator of logistics system performance.

**Figure 8. Utilization of Stock Control Cards to Manage FP Products by Facility Types**

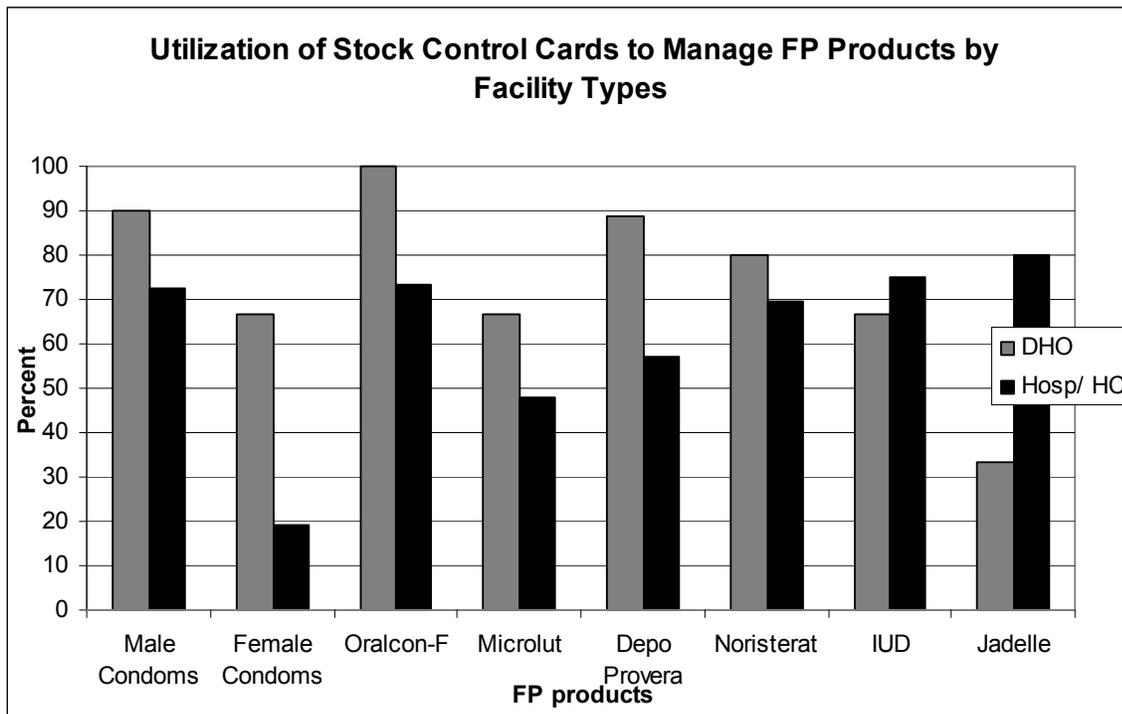
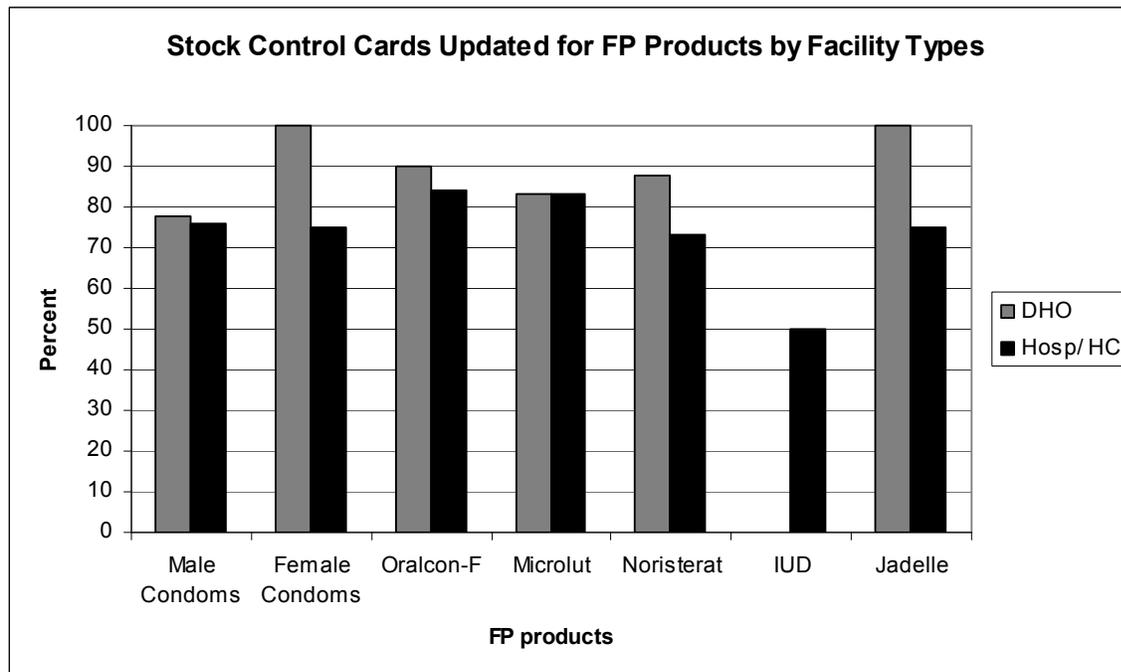


Figure 8 illustrates the percent of facilities with stock cards available for those products that they manage, by facility types. The availability of stock cards was found to be varied for different products. Utilization of stock cards was generally higher among the DHOs as compared to health facilities. Around 70 percent of health facilities were using stock cards for managing male condoms, Oralcon-F, and Noristerat, as compared to DHOs where availability of stock cards for these products was over 80 percent. A higher percentage of stock card availability for IUDs and Jadelle at the health facilities can be considered as outliers, due to the fact that these products were only managed at a limited number of higher level facilities such as district hospitals and urban health centers.

**Percentage of Facilities with Available Stock Cards Updated**

Figure 9 shows the percent of facilities visited with updated stock cards for those products with stock cards in the 30 days preceding the survey, by facility types.

**Figure 9. Stock Control Cards Updated for FP Products by Facility Types**



Even though a higher percentage of stock cards were available for DHOs as demonstrated in Figure 1, the percentage of updated stock cards was found to be similar for both DHOs and health facilities. Over 70 percent of available stock cards were updated for both DHOs and health facilities, with the exception of IUDs. It is surprising that none of the DHOs had updated stock cards for IUDs as compared to fifty percent of the health facilities. Despite the lack of IUDs and stock cards found in the DHOs, there is no policy that would discourage their distribution. Medical personnel responsible for providing IUDs require special training and this training is currently on-going in Zambia.

## **STOCK AVAILABILITY BY PRODUCT TYPE**

The most important outcome of a logistics system is stock availability at the health facility. The survey collected data on both stock on hand and stockouts on the day of the visit and measured the duration of stockouts during a recent 3 month period.

Stockouts in any health system can represent a critical failure of the logistics system. They can result in clients unable to obtain family planning methods of their choice and a reduced level of confidence in the health system. Even where stockouts are not high, facilities with too little stock at the time of the visit are either likely to stock out or will require an emergency order before they receive their next routine order.

While stockouts demonstrate one outcome of a poorly functioning logistics system, overstocks are another important indicator of a logistics system's effectiveness. Overstocks put the products at greater risk of expiration or damage before they can be distributed and used; they also take up space, and other facilities may have inadequate stocks at the same time, indicating a need for redistribution.

To assess a facility's stock status, the average monthly consumption was calculated over the previous three months, depending on the commodity, and adjusted for periods of stockouts. The current stock on hand or physical inventory count was divided by average monthly consumption to determine how many months of stock were available for each product at each facility. This calculation could only be made for facilities maintaining adequate stock records. Therefore, figures in this report referring either to stockouts in the last 3 months or months of supply are likely to underestimate stock imbalances (overstocked, understocked or stocked out) as a result of the inability to account for product availability at those facilities with inadequate record keeping.

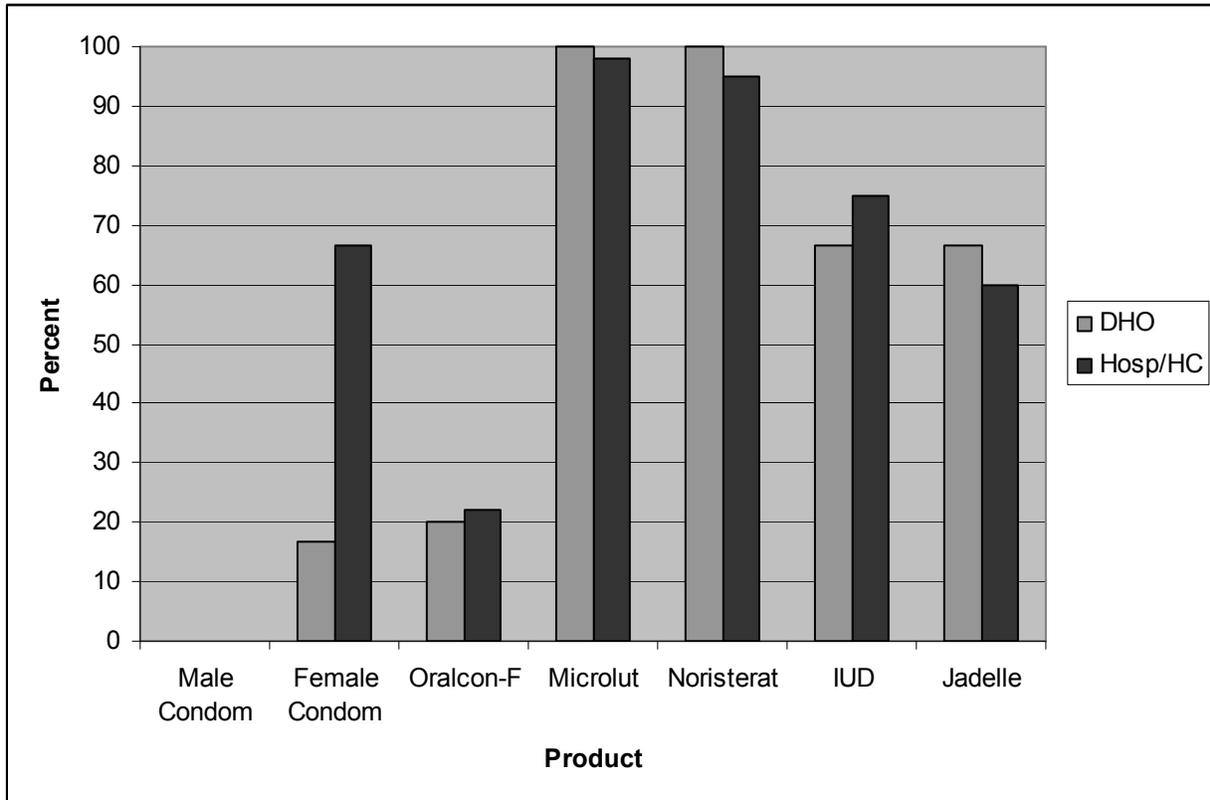
The findings are organized by product and include analysis of the following indicators:

- Percentage of facilities that manage the product and were experiencing a stockout on the day of the visit for contraceptives and reproductive health commodities.
- Percentage of facilities that manage the product and experienced a stockout during the three-month period from October 1, 2007 to December 31, 2007 for contraceptives. Since some facilities did not have adequate records, the stockouts that were recorded may underestimate the actual frequency of stockouts. Presumably, facilities with accurate and complete records manage their stock better, so they should have fewer stockouts than facilities without records.
- Average duration of stockouts. This calculation is based on stockouts observed in facilities' records. Consequently, this analysis only includes facilities that had stock-keeping records available; where these data are unavailable, this measurement cannot be made (i.e., data universe is lower for these indicators). Therefore, the stockouts in this section's tables potentially underestimate the duration of stockouts for the products in this survey.
- Mean months of stock on hand on the day of the visit by facility type. This is based only on facilities that had physical inventory and consumption records available, thus the number of facilities included in these calculations (i.e., "n") is lower than the number of overall facilities managing each product. Where there are large months of stock on hand in the system, the mean illustrates the amount of stock that is at risk of damage and/or expiration. According to the Ministry of Health guidelines, the minimum stock that should be held at hospitals and districts is 2 month, and the maximum is 3 months. The minimum that should exist at health centers is 1 month, and the maximum is 2 months.

## **STOCK STATUS FOR CONTRACEPTIVES**

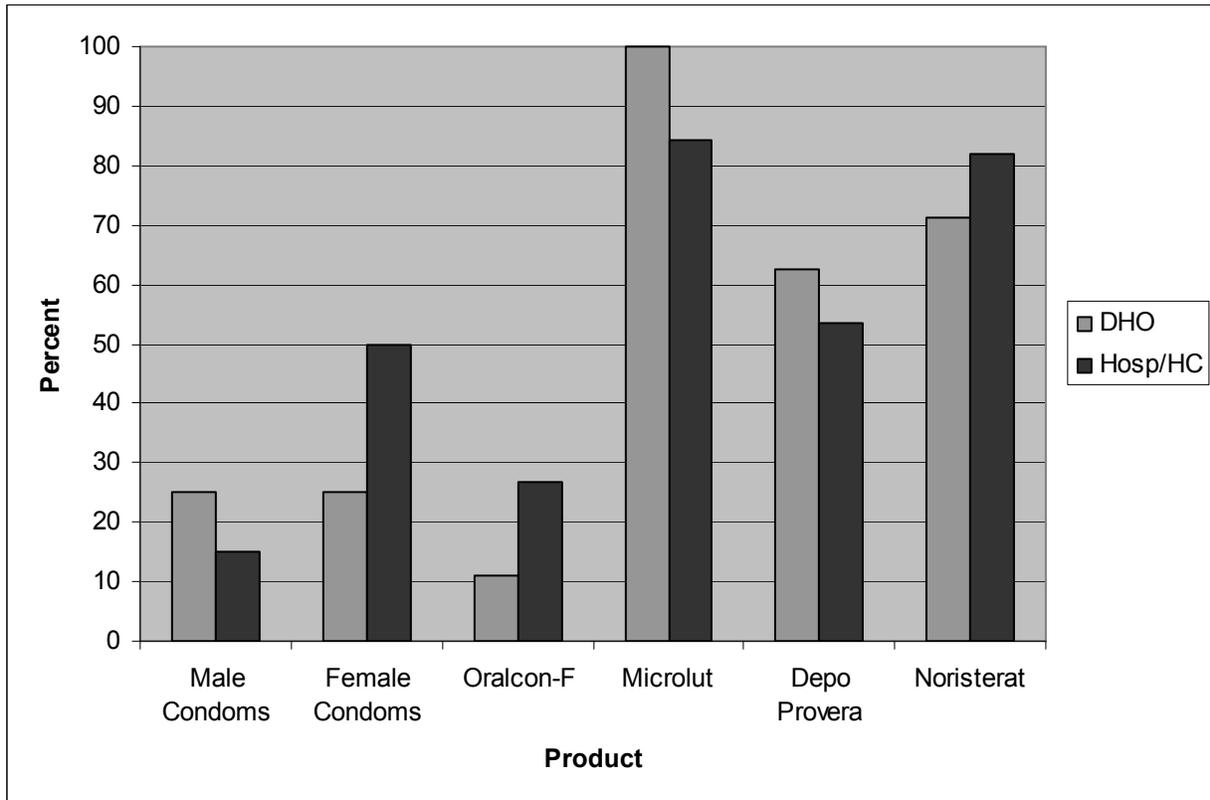
Contraceptives in the survey included male condoms, female condoms, Oralcon-F, Microlut, Depo-Provera, Noristerat, IUDs, and Jadelle. However, during data analysis, it was determined that IUDs and Jadelle would be excluded from some analysis because management of these commodities was found at very few facilities due to the training requirement for health care providers. All analysis by product was done only for facilities that reported managing the product. Furthermore, despite facilities reporting that they managed Depo Provera, Depo Provera was not available for distribution to clients at the time of the visit. This was because it was quarantined for quality control purposes due to a false rumor, subsequently disproved, that it was contaminated by the HIV virus. For this reason, Depo Provera was excluded for this indicator. Figures 10 through 12 illustrate the stock availability findings on the day of the visit for the remaining contraceptives assessed in the survey.

**Figure 10. Contraceptive Stockouts on the Day of the Visit**



On the day of the visit, data collectors consistently found a high number of stockouts at both the DHO and SDP levels. There was very little variance between types of facilities when it came to stockouts by product type. Male condoms were found in all facilities at all levels. It was observed that the products in this graph are not commonly requested and therefore small quantities are being procured.

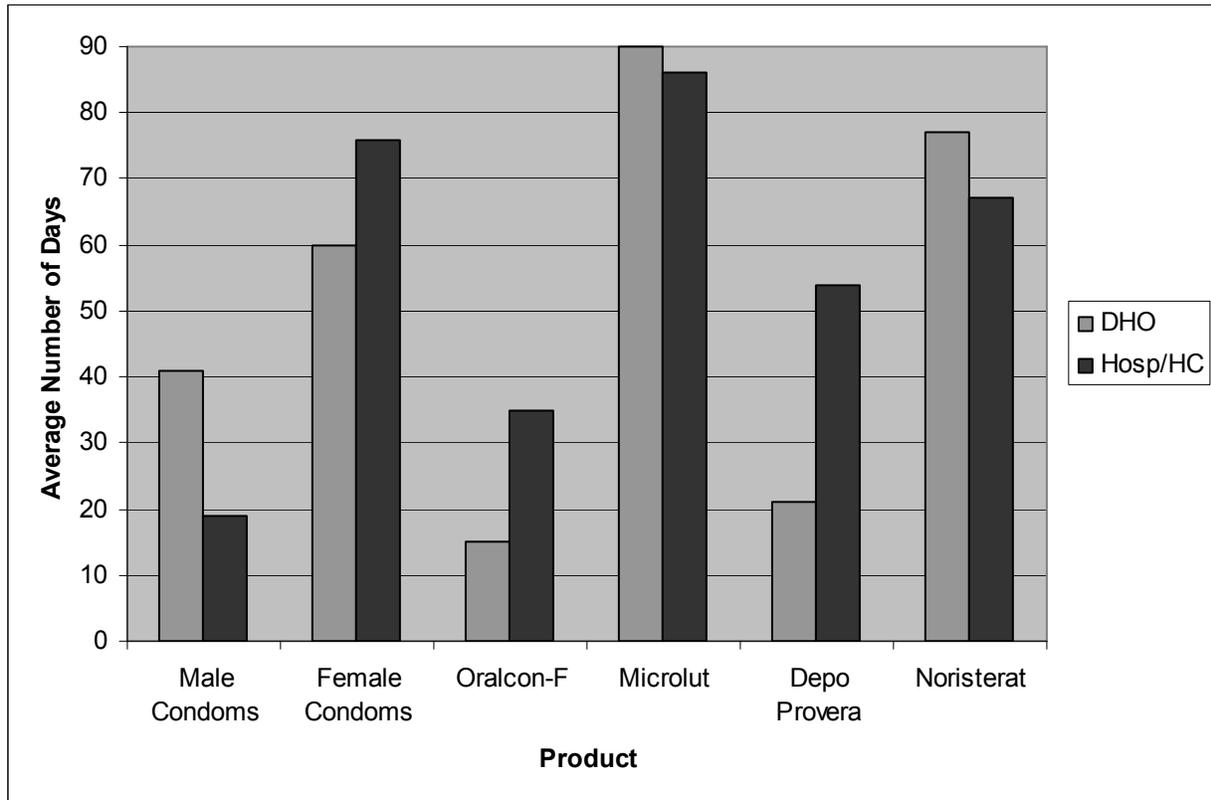
**Figure 11. Contraceptive Stockouts from October 1, 2007 to December 31, 2007\***



\*IUDs and Jadelle are not represented on the above graph due to the insignificant number of facilities indicating they managed these products.

When assessing stock availability over the 3 month period of October 1, 2007 through December 31, 2007, data collectors found a similar picture as they had seen on the day of the visit. Over the 3 month review period, facilities of both types experienced stockouts of each family planning method they managed.

**Figure 12. Duration of Contraceptive Stockouts**



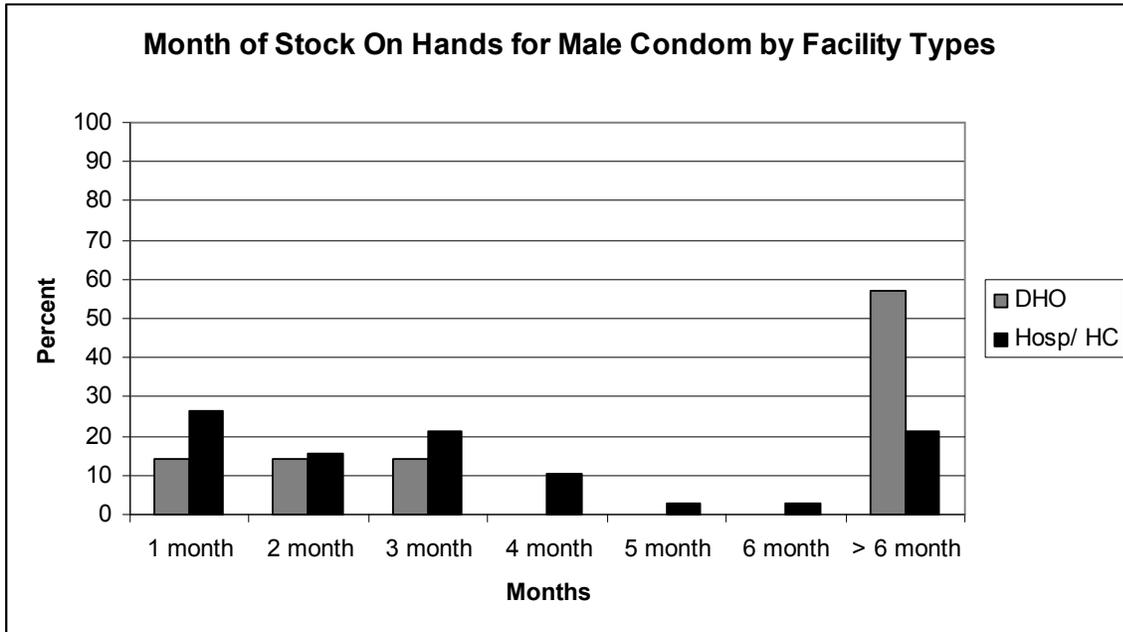
Duration of contraceptive stockouts varied widely depending on the product. Stockouts of female condoms, Microlut, and Noristerat lasted a similar length of time for both the DHO and health facility level. Depo Provera was stocked out at the SDP level for an average of 30 days longer than at the DHO level.

### **Stock on Hand (Months of Stock)**

Minimum and maximum inventory levels have been set in all levels of the health system. The district health offices and hospitals have a minimum inventory level of 2 months stock and a maximum inventory level of 3 months of stock, while health centers/clinics have a minimum inventory level of 1 month of stock and a maximum inventory level of 2 months of stock. Proper commodity management should ensure that inventory levels remain within this set range.

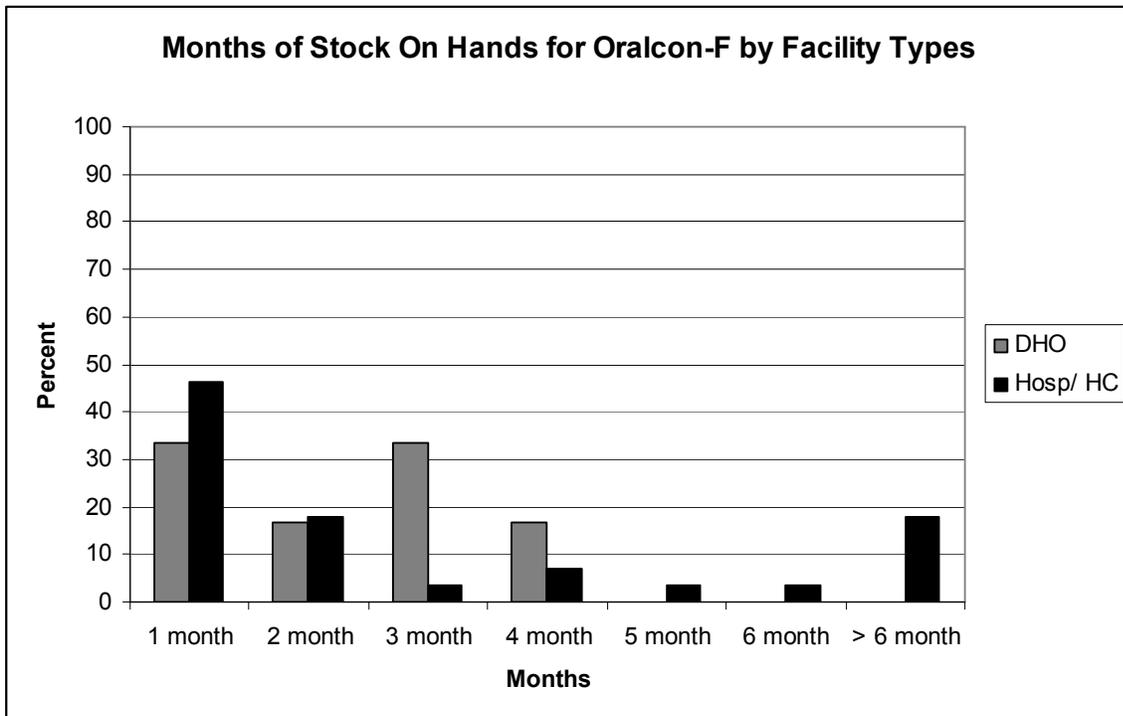
Figures 13 and 14 illustrate the number of months of stock on hand for family planning products. The numbers presented in this analysis are based upon the stock available in physical inventory divided by the average monthly consumption over the review period (adjusted for times of stockout), or in the case of DHOs, the stock available divided by the average monthly issues over the review period to all facilities in that region. For most of the products, all the information needed to calculate this indicator was not available as there was a high stock out for most of the products and consumption or issues data were seldom recorded properly. Thus, it was only possible to estimate this indicator for two products: male condoms and Oralcon-F.

**Figure 13. Months of Stock on Hand for Male Condoms by Facility Type**



Smaller sample size: DHO: 6; Hosp/ HC: 31

**Figure 14. Months of Stock on Hand for Oralcon-F by Facility Type**



Smaller sample size: DHO: 6; Hosp/HC: 28

According to Figure 13, over fifty percent of the DHOs had over six months stock on hand for male condoms, whereas 25 percent of the health facilities had less than a month of stock. According to Figure 14, for Oralcon-F, over 45 percent and 18 percent of health facilities had one month and over six months of stock on hand, respectively.

## REPRODUCTIVE HEALTH PRODUCTS

### Product Management

This survey provided an opportunity for the USAID | DELIVER PROJECT and UNFPA to assess the availability of selected reproductive health related products critical for managing emergency obstetrics situations. The objective was to have a snap shot survey of RH products which included selected life saving drugs, mainly in injectable forms, and crucial for managing pre-eclampsia, hemorrhage and obstructed labor, as well as intravenous fluid (IV) and IV giving sets vital for administering these drugs.

**Table 3. RH Product Management by Facility Types**

Products	Health Facilities							
	DHO (10)		District Hospital (4)		Rural Health Center (55)		Urban Health Center (9)	
	%	n	%	n	%	n	%	n
Magnesium Sulphate	70	7	50	2	10.9	6	0	0
Oxytocin	100	10	50	2	63	34	66.7	6
Ergometrin	90	9	75	3	90.9	50	77.8	7
Metronidazole	70	7	50	2	5.5	3	11.1	1
IV fluid/set	100	10	75	3	96.4	53	100	9

Table 3 shows distribution of availability of the RH products by the type of facilities. Out of the 79 surveyed facilities, there were 10 DHOs, 4 district hospitals, 55 rural centers and 9 urban health centers. The majority of the DHOs manage most of these products. Magnesium sulfate, an intravenously administered drug used to treat pre-eclampsia, was not managed at the health centers. Only two of the four district hospitals, which are considered as referral centers, reported to manage this product. Availability of magnesium sulfate was very low at the RHCs (10.9 percent) and none of the UHCs manage the product. Oxytocin is an intravenously administered drug, used for inducing labor in pregnancies with risks of developing complication. Ergometrine is used for controlling severe bleeding especially after delivery (post-partum hemorrhage). Both oxytocin and ergometrine were managed across all levels of health facilities, with over 60 percent of the surveyed facilities managing oxytocin and 70 percent managing ergometrine. The only exception is the district hospitals where two of the four surveyed centers reported managing oxytocin. Metronidazole injection, an infection control medicine, was found to be managed at the DHOs and district hospitals. Intravenous fluid and giving set are found to be managed at almost all facilities.

**Figure 15. Stock Cards Availability of RH Products**

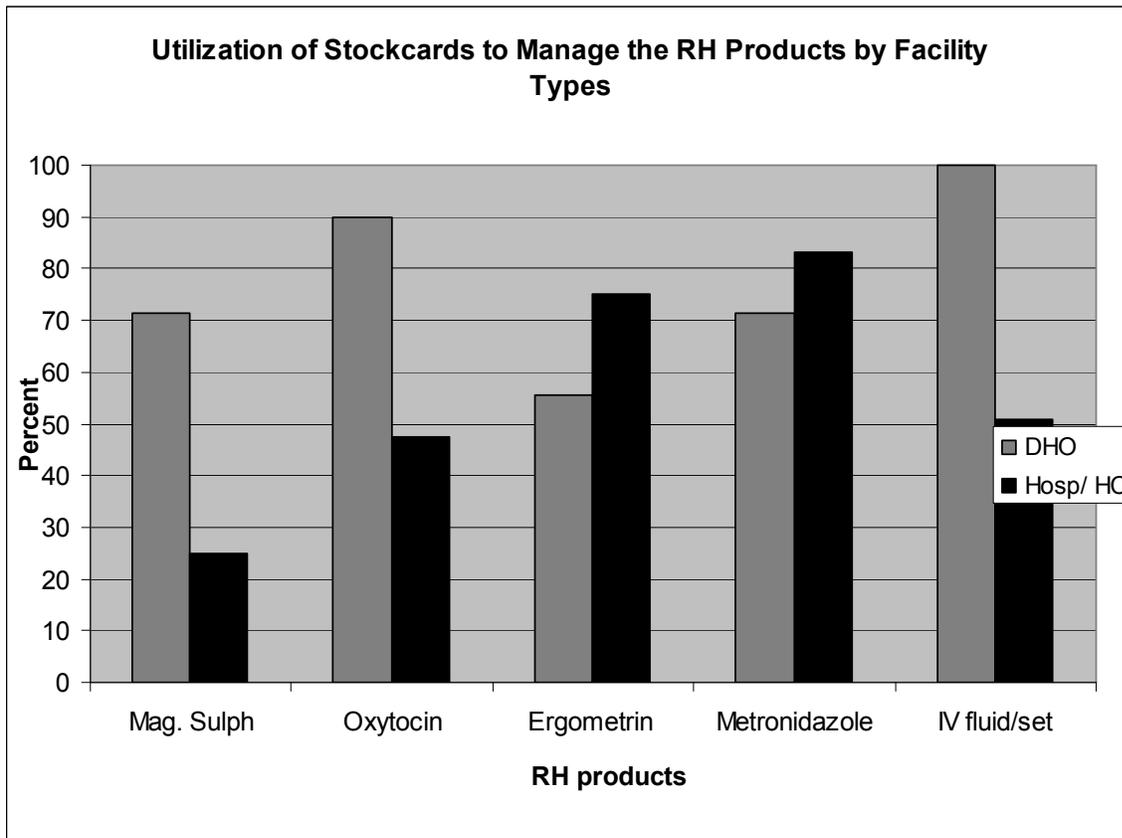
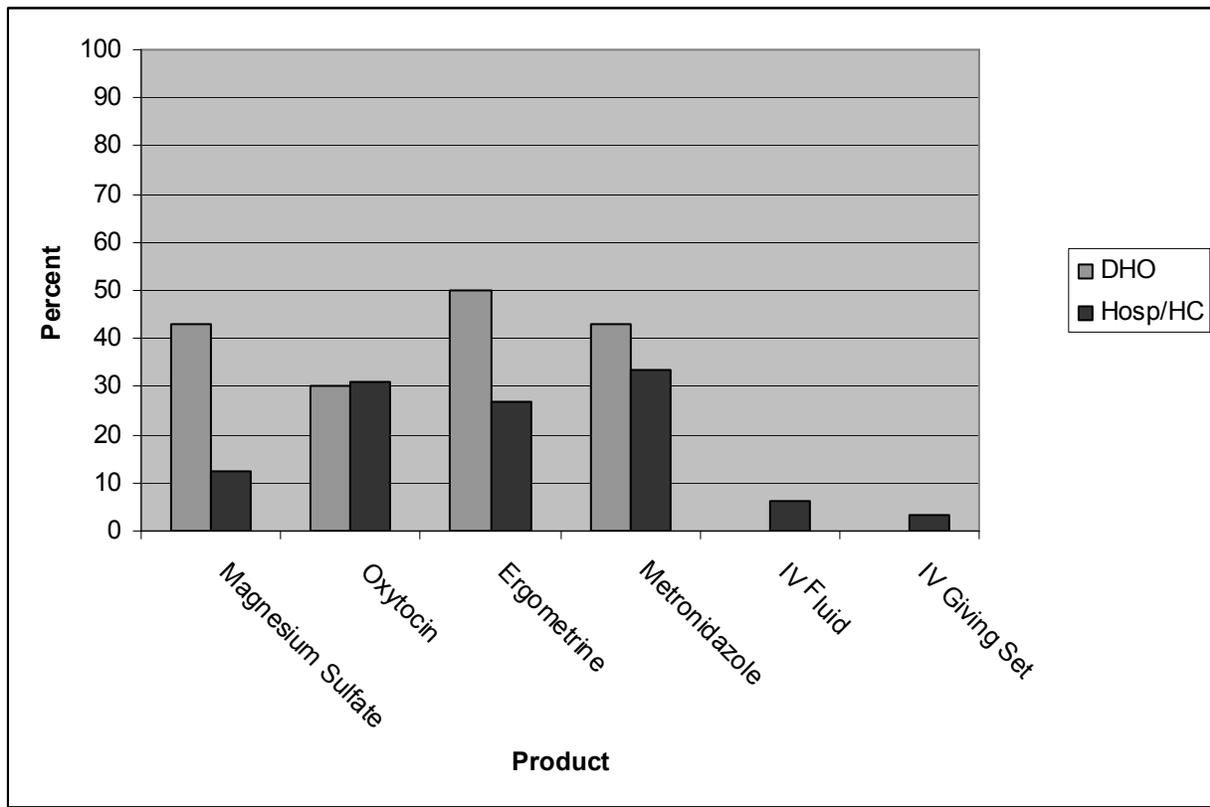


Figure 15 illustrates the percent of facilities using stock cards to manage the RH products. Stock card availability was assessed only for those facilities who reported managing each product. In general a much higher percentage of DHOs were using stock cards to manage products except for ergometrine and metronidazole. Utilization of stock cards for magnesium sulfate was the lowest for health facilities at around 25 percent.

### **Stock Out on the Day of Visit**

This particular indicator reflects the availability of the products on the day of visit. The stock out level was quite high for most of the products, both at DHO and health facility levels. A higher percentage of the DHOs were stocked out as compared to health facilities for magnesium sulfate, ergometrine and metronidazole. Over 70 percent of the health facilities and 40 percent of the DHOs did not have any delivery kits on the day of visit.

**Figure 16. Stock Out on the Day of Visit for RH Products**



## **STORAGE CONDITIONS**

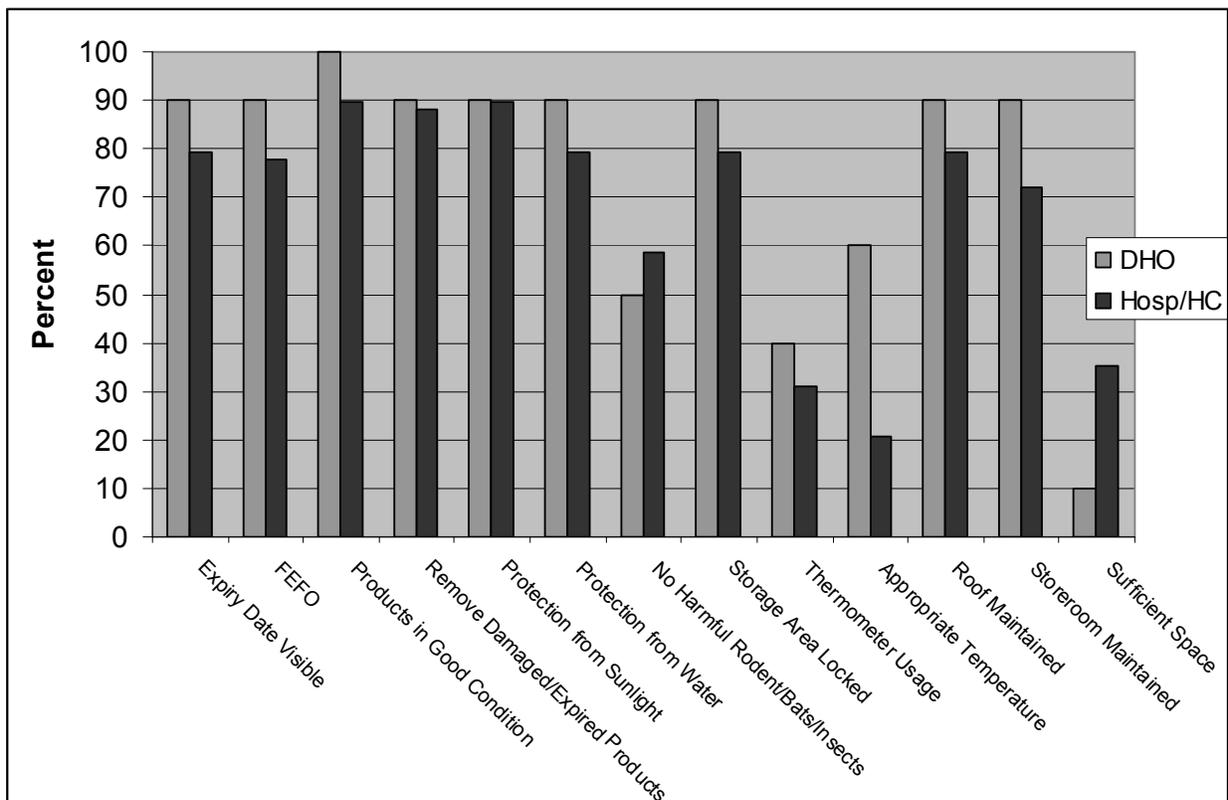
To provide clients with high-quality products, each facility must have safe, protected and well-organized storage areas to help prevent damage and to ensure efficient handling of products. In assessing storage areas, the survey examined the level of compliance with 13 universal guidelines for proper storage. The data collection teams assessed each facility's adherence to these storage conditions through direct observation and interview questions asked of facility staff. The guidelines include:

1. Products that are ready for distribution are arranged so that identification labels and expiry dates and/or manufacturing dates are visible.
2. Products are stored and organized in a manner accessible for first-to-expire, first-out (FEFO) counting and general management.
3. Cartons and products are in good condition and not crushed due to mishandling. If cartons are open, determine if products are wet or cracked due to heat/radiation.
4. Facility makes it a practice to separate damaged and/or expired products from good products and remove them from inventory.
5. Products are protected from direct sunlight on the day of visit.

6. Cartons and products are protected from water and humidity on the day of the visit.
7. Storage area is visually free from harmful insects and rodents.
8. Storage area is secured with a lock and key but is accessible during normal working hours, with access limited to authorized personnel.
9. A thermometer is available and temperatures are recorded at least twice daily (AM and PM).
10. Products are stored at the appropriate temperature according to product temperature specifications.
11. Roof is maintained in good condition to avoid sunlight and water penetration.
12. Storeroom is maintained in good condition (i.e., clean, all trash removed, sturdy shelves, and organized boxes).
13. The current space and organization is sufficient for existing products and reasonable expansion (i.e., receipt of expected product deliveries for the foreseeable future).

At each facility, data collectors visually inspected storage areas based on the above conditions. Figure 17 illustrates the percentage of facilities following each of the storage guidelines at DHOs and at all other health facilities combined.

**Figure 17. Storage Conditions at Health Facilities**



On the whole, storage conditions found at the DHOs were generally favorable. Three of the ten DHOs visited had excellent storage conditions (i.e., answered favorably for at least 12 of the 13 conditions assessed). Half of the DHOs scored in the acceptable range (i.e., 9 to 11 of the storage conditions were found in compliance), and two scored in the unacceptable range (i.e., assessed favorably on eight or fewer of the storage conditions). For half of the health facilities, the prevention of rodents or bats accessing the storeroom was a challenge. Temperature control was a substantial issue for both DHOs and health facilities. Less than half of the DHO facilities had thermometers in place inside the storerooms and four DHOs were not able to maintain temperature or humidity conditions suitable for storing contraceptives. Most alarmingly, only one DHO had sufficient space available for storing a full supply of contraceptives.

Storage conditions at the health facility level were generally good, but less favorable than at the DHOs. Only 13 percent of the facilities surveyed met storage conditions for 12 or more criteria. The percent of facilities meeting acceptable storage conditions was slightly more than half (54 percent), while facilities having acceptable storage conditions were 33 percent, an increase from the DHOs. Health facilities faced challenges for the same storage conditions as the DHOs: rodent and bat infestation, lack of temperature regulation, and insufficient storage space. The finding is not all together surprising considering the additional challenges faced by health facilities given some remote locations and limited infrastructure.

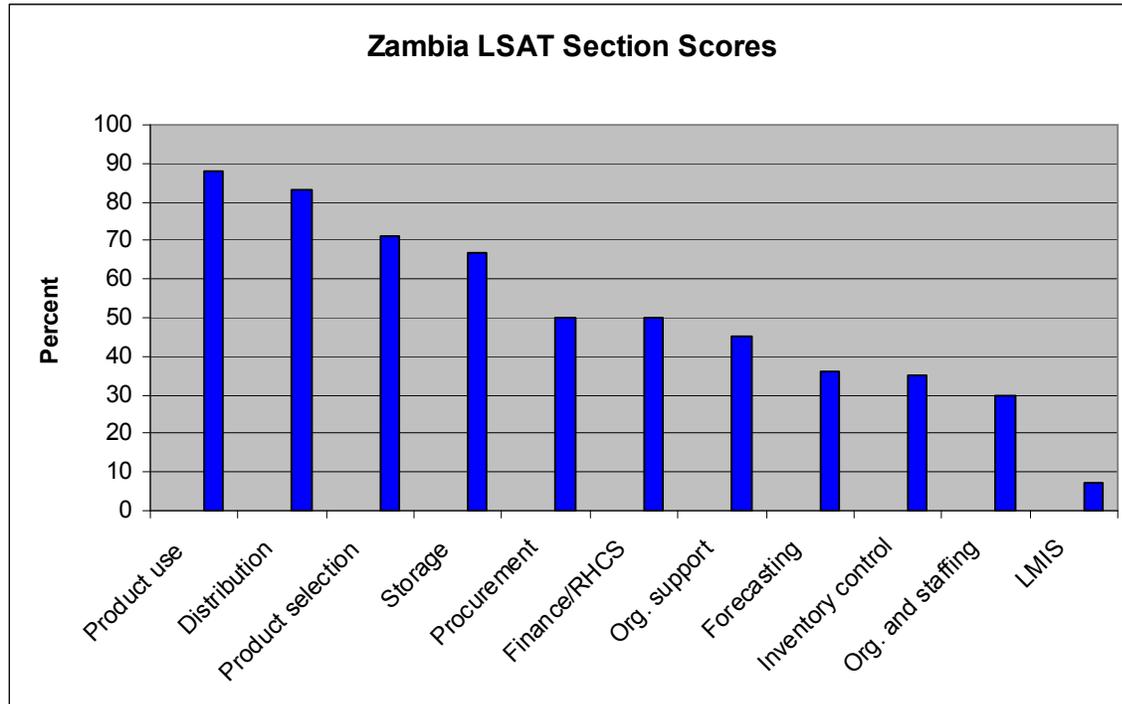
## **LOGISTICS SYSTEM ASSESSMENT TOOL (LSAT)**

### **SECTION SCORES**

The LSAT utilized for this study was adapted specifically to the family planning logistics system in Zambia and involved the assessment of the family planning program in the following areas: organization and staffing, logistics management information system, product selection, forecasting, obtaining supplies/procurement, inventory control procedures, warehousing and storage, transport and distribution, organizational support for the logistics system, product use, financing and reproductive health commodity security. Each section of the LSAT was scored, reflecting the viewpoint of the participants acting within the system.

Figure 18 presents the percentage scores of each section of the LSAT and helps to identify program strengths and weaknesses as well as to allow for tracking of progress over time.

**Figure 18. LSAT Section Scores**



As illustrated in the figure, scores for the majority of the assessed areas, other than product use and distribution, were low with seven areas scoring around or less than 50 percent. A relatively higher score on product use and distribution indicate that policies regarding treatment guidelines, monitoring of the adherence to guideline, training of staff and a distribution mechanism for products are in place in Zambia. However, low scores in other sections are indicative of a system where most of the areas either did not have a policy or most of the components were non-functioning. Even though distribution scored higher in this exercise, the participants highlighted a few issues with regards to transportation. A written procedure on distribution of products to different levels exists and the program budget includes transportation or vehicles and maintenance of vehicles as a line item. Medical Stores, Ltd. (MSL) delivers to district health offices and hospitals on a monthly basis following a fixed delivery schedule, while the district health offices deliver to health centers or the health centers collect from districts. The major concern in the distribution is lack of sufficient number of functioning vehicles at and below the district level. MSL seemed to have adequate vehicles, but from the district onwards, transportation poses a major challenge for distributing products.

Procurement and finances scores can be considered low at 50 percent, yet these are the components that build the whole backbone of the system. FP products in Zambia are purchased by GRZ and donors. Pipeline monitoring software is used to monitor stock availability at the central level, as well as to generate procurement plans. Even though the tool is quite robust, the application of the tool just started at the end of 2007. Thus, full potential of the tool is yet to be realized for family planning. The LSAT exercise showed that currently, the procurement plan in place is not based on consumption data but was generated following a national forecasting and quantification exercise conducted using demographic projections in November 2007. This exercise also took into consideration stock status at the central level. As illustrated above, the current logistics system used

for contraceptives does not routinely capture consumption data for decision making. The process currently in place only takes into account the current level of central inventory and planned shipments, without considering essential data items such as consumption, facility stock levels, and losses and adjustments. The discussion also revealed that most of the time, the correct amount of products needed is not obtained at any level of the system.

The Ministry has an established program budget line which includes product purchase and transportation. The discussants felt that the budget was not enough to purchase the products and cover staff salaries. The program is currently dependent on international donors, namely USAID, UNFPA, and DFID. However, the exercise revealed a gap in over 1.4 million US dollars in donor support in short term commitment for 2008 and 2009.

Organizational support also scored low in the LSAT exercise. There seemed to be an existing mechanism through which staff from different levels communicate at a regular interval. These meetings offer opportunities for sharing essential data as well as updates on the stock status at the central level. But the discussion highlighted gaps in regular supervision and lack of emphasis on skill improvements of personnel with logistics responsibilities. There are no specific guidelines or training on how to conduct supervisory visits. As a result, important aspects of supervision pertinent to product management—such as accurate LMIS forms completion, storage conditions, and calculating order quantities—are being left unsupervised.

Forecasting is a mechanism which estimates the quantity of products to be consumed in a period of time, which is ideally based on previous consumption. There is an annual forecasting process in Zambia initiated by MOH and assisted by the USAID | DELIVER PROJECT and UNFPA. The recent forecast conducted in Zambia employed distribution or issues along with demographic information. Given that little or no information is being reported from service providers, it is not currently possible to validate estimated projections with actual consumption.

Inventory control, which is at the center of ensuring product availability for clients in a timely manner, scored quite low during the LSAT exercise. The discussion revealed that the system is essentially a pull system and most of the products are considered full supply by design, though not fully funded. Some condoms are supplied through essential drug kits and considered as a push system. There are set minimum and maximum levels of stock already established, but according to the participants, it is often not understood or followed, especially at the lower levels. Even though there are guidelines with respect to different components of inventory management, the discussion revealed they were not strictly followed. There does not seem to be a guideline for handling overstock and redistribution of products at the district level and no mechanism exists to monitor or calculate stock imbalances.

The lowest score was assigned to the logistics management information system (LMIS) which suggests that the reporting system related to family planning logistics management is almost non-existent. Participants discussed the need for information such as consumption data and stock on hand to flow from health facilities to the central level. The discussion revealed that not all of the desired data related to stock status were consistently being recorded, collected and reported.



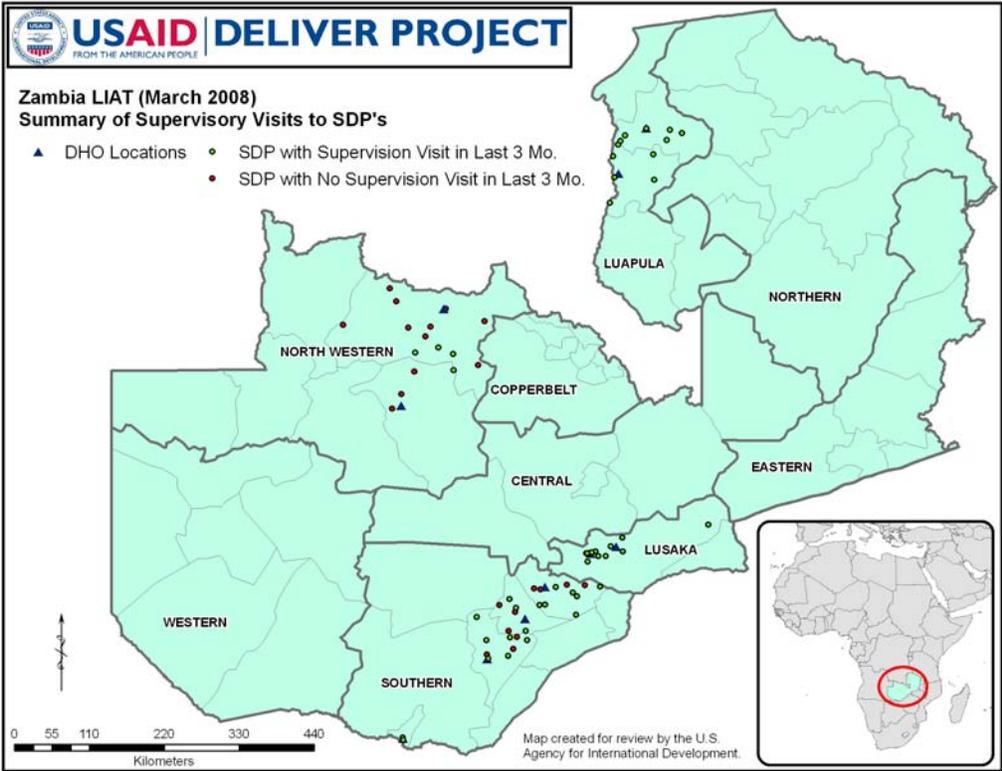
# GIS SPATIAL ANALYSIS

During the family planning logistics system assessment in Zambia, the USAID | DELIVER PROJECT integrated spatial analysis of logistics indicators collected. Currently, analysis of logistics data collected during LIAT assessments provides an overall snapshot of the state of a country's contraceptive logistics system, yet it does not rigorously address the spatial variation of the indicators, based on health facility location, that exists at a sub-national level. Incorporating spatial analysis techniques into the established research methodology allows for an assessment of the logistics system that explicitly accounts for the influence of geographical factors affecting product availability. Understanding how geography affects the functioning of the logistics system will provide decision-makers and logistics managers with a more comprehensive set of information to assist them in their work.

## SUPERVISION VISITS

The graphic representation of supervisory visits to the health facilities within the last 3 months shows that all of the facilities visited in Luapula and Lusaka Provinces received a supervisory visit that looked at stock records. North Western Province experienced the least number of supervisory visits during the 3 month period. In Southern Province, 10 out of 26 (less than half) of the facilities had supervisory visits during the same period. The disbursement of facilities having received supervision is widespread and appears randomized.

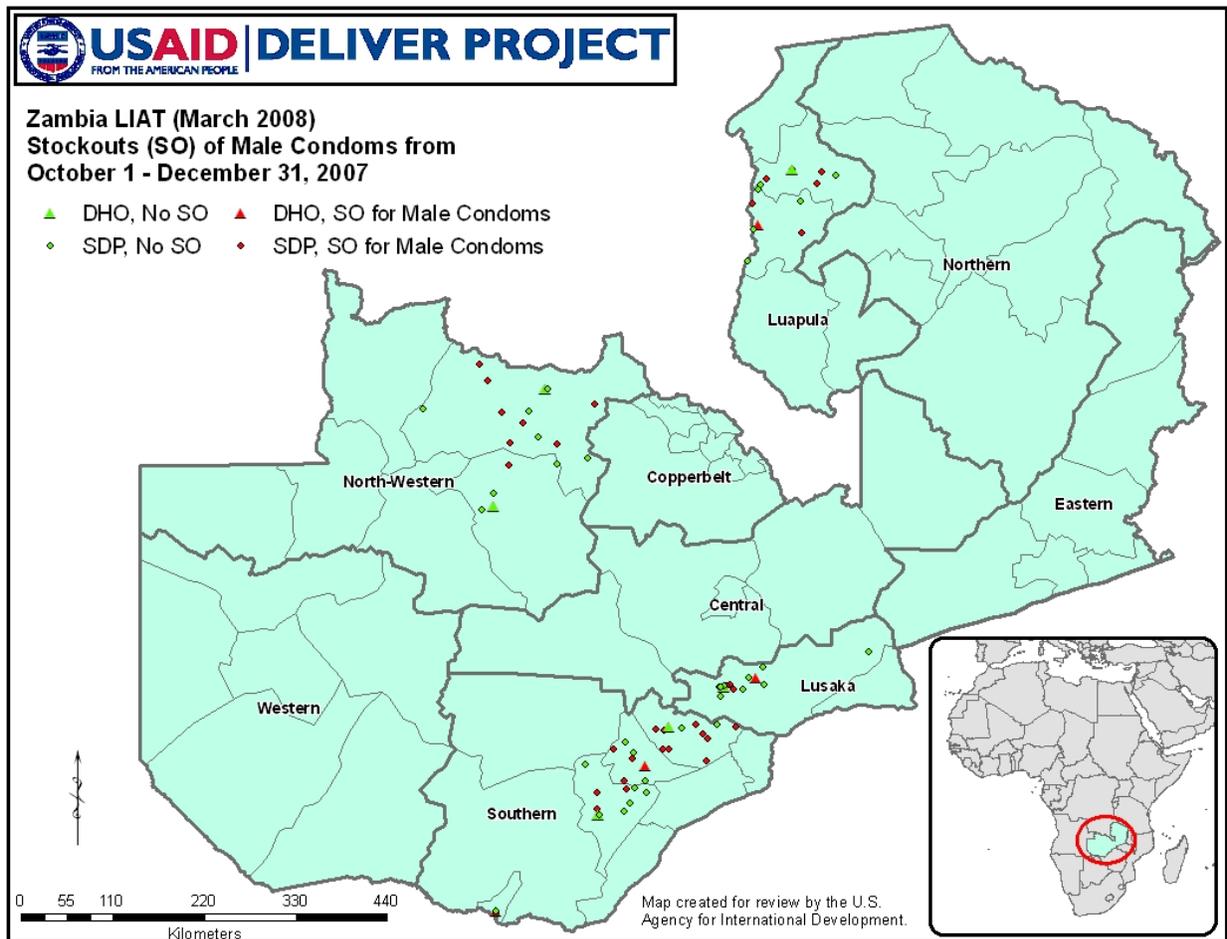
Figure 19. Summary of Supervisory Visits to SDPs



## MALE CONDOMS

The survey team found that every facility visited had condoms available on the day of the visit. Further spatial analysis of facilities that experienced stockouts between October 1 and December 31, 2007 (Figure 20) illustrates that some DHOs in Lusaka, Luapula and Southern Province experienced at least one stockout during that time period. The health facilities also experienced stockouts in that time frame, but there does not appear to be a correlation between DHOs as the source of condoms and the health facility stockouts. This also highlights that the condoms facilities receive in the kits are not sufficient for an uninterrupted supply.

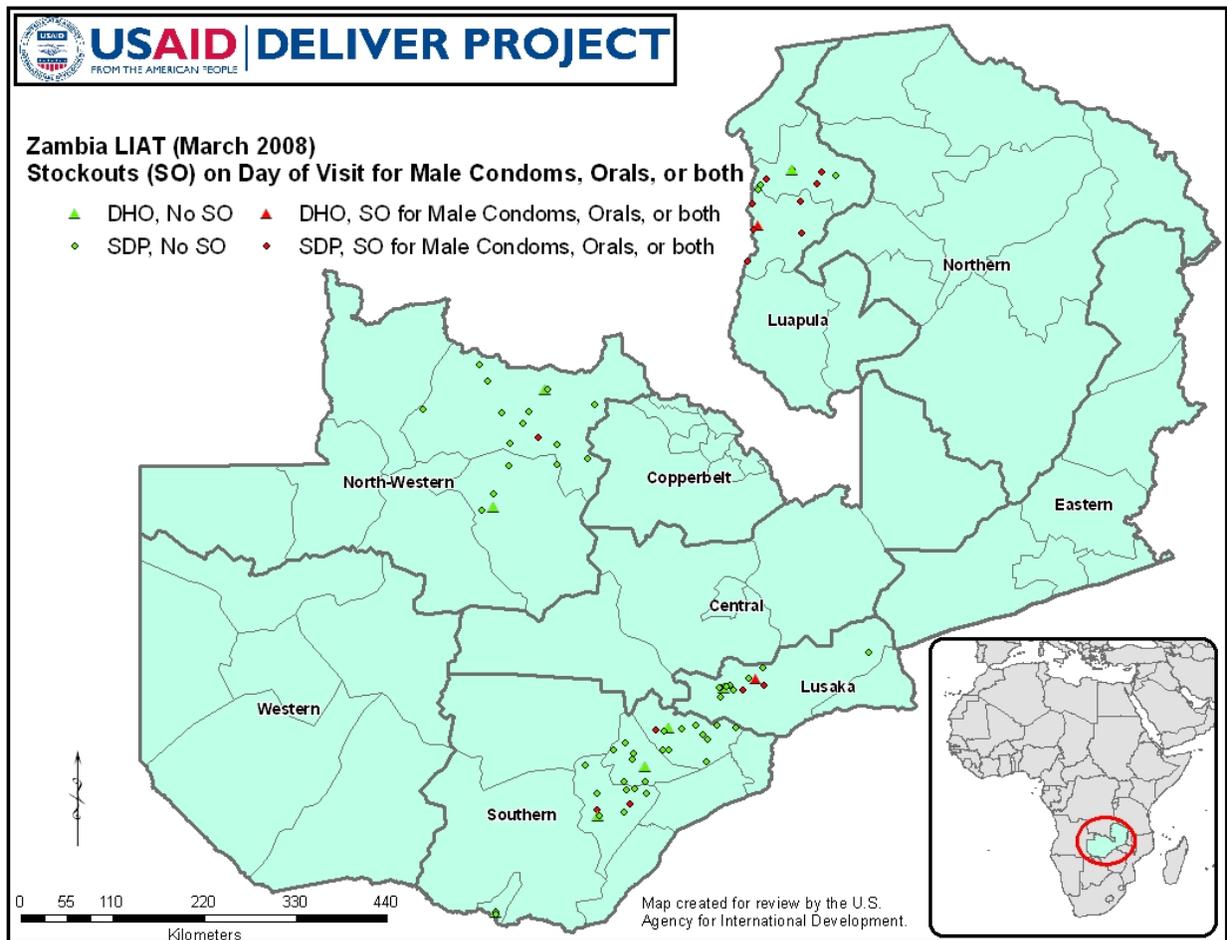
**Figure 20. Stockouts of Male Condoms from October 1 to December 31, 2007**



## METHOD MIX

The survey team also looked at the geographic data of stockouts of condoms, orals or both on the day of the visit and between October 1 and December 31, 2007. Due to the recent quarantine of Depo-Provera, only two products were used as a proxy for method mix availability. Figure 21 shows that the majority of facilities visited in North Western, Lusaka and Southern provinces had method mix available on that day. Figure 22, however, does point out that when looking at historic data, the majority of facilities had at least one stockout of condoms, orals (Oralcon-F) or both.

**Figure 21. Stockouts of Short-Term Methods on the Day of the Visit**



**Figure 22. Stockouts of Short-Term Methods from October 1 to December 31, 2007**

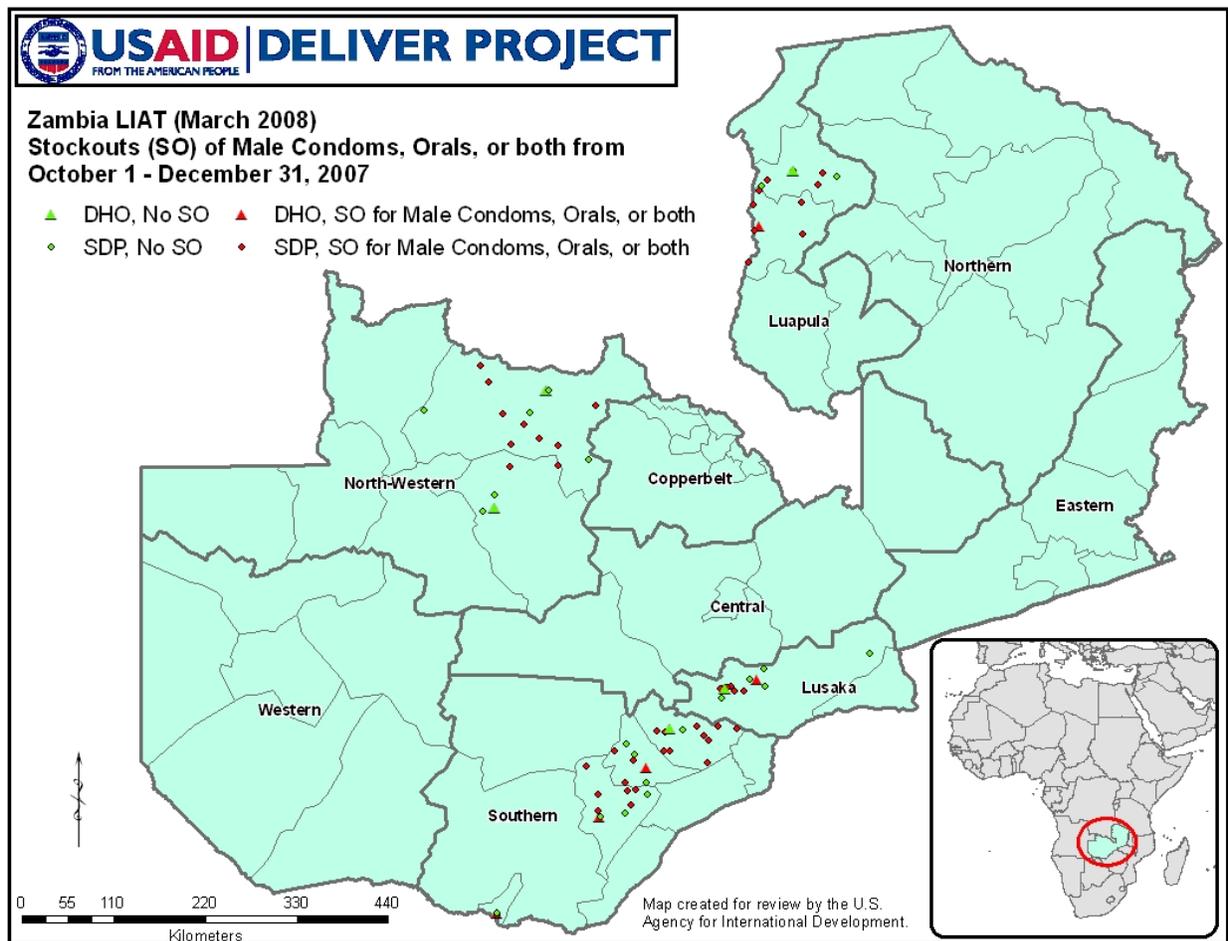
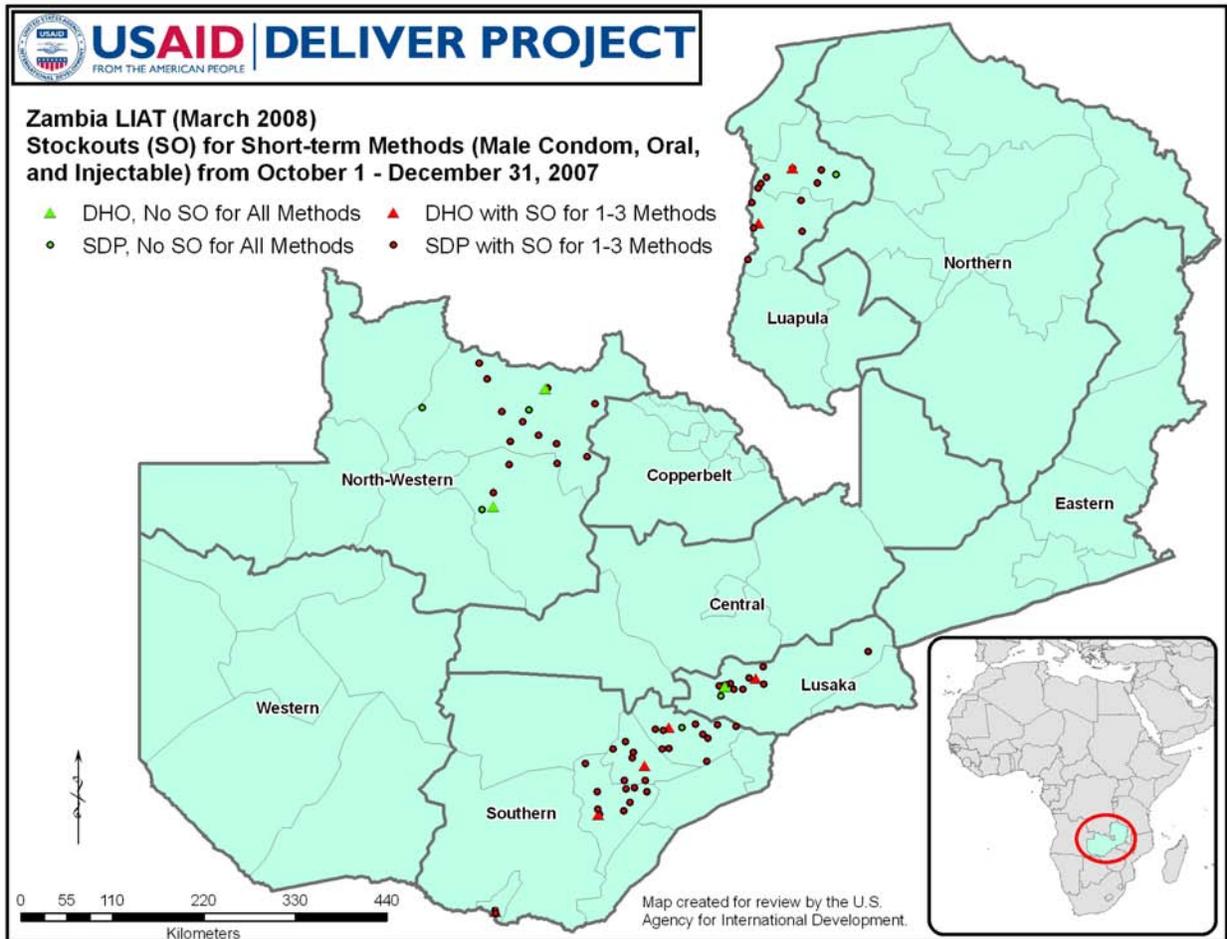


Figure 23 shows facilities that experienced a stockout of the method mix of condoms, oral contraceptives, and injectables during a period from October 1 through December 31, 2007, prior to the Depo-Provera quarantine. Facilities were separated by either having all 3 methods available or by having at least one of the methods stocked out during the period investigated. Both Luapula and Southern Provinces had stockouts at the DHOs and the majority of health facilities (save for one in each district). For both Lusaka and North Western Provinces, both DHOs have a supply of the method mix, but had several facilities stocked out. In Lusaka Province, one out of the two DHOs visited was stocked out with the majority of facilities stocked out as well.

**Figure 23. Stockouts for Short-term Methods from October 1 through December 31, 2007**





# CONCLUSIONS

The LSAT discussion revealed the overall FP system in Zambia to be weak in terms of functionality as reflected in the low scores (less than 50%) in most of the assessed areas. Family planning products in Zambia are purchased by GRZ and donors. A gap in the funding was identified for contraceptives. According to the PipeLine data and projections based on inputs from Nov. 2007 to March 2008, there is gap of over \$100,000 and \$400,000-\$500,000 in donor support in short term and long term commitments respectively.

An LMIS for family planning logistics management is almost non-existent. There is a need for information such as consumption data and stock on hand to flow from health facilities to the central level. Reporting rates of essential data items, especially by the health centers are very poor (below 30 percent). This indicator is inherently related to training rates as it is expected that those who receive training on logistics management are likely to know how to complete the forms. The percentage of self reported training on how to complete the forms is relatively high as around 90 percent of the respondents mentioned receiving training. Most of the respondents learned how to complete similar forms while attending an HIV (ARV, PMTCT, HIV test kits) logistics workshop or through on-the-job training. Since this information was self reported, there is a possibility that the rate could be over-estimated. The discrepancy is evident when this training rate is compared with the reporting rate. The survey showed that nearly 65 percent of the health centers received at least one supervisory visit within last three months. This finding raises concerns about the quality of supervision given the low reporting rate and the avenues for reinforcing good logistics management practices, including inventory control, record keeping and reporting. It was also found during the LSAT that there are no specific guidelines or training on how to conduct supervisory visits for FP logistics functions.

A high percentage of facilities reported using stock cards, which is the first step in inventory management. However, for the products surveyed, the availability of stock cards was varied with DHOs in general having a slightly better record. Availability of stockcards was around 80 percent for four products (condom, Oralcon-F, Depo Provera and Noristerat) at the DHOs. At the health center level, the availability of stockcards was at or below 70 percent for most of the products. Both DHOs and health facilities had similar levels of performance with regards to updating of the stock cards.

Stock out on the day of the visit is a robust indicator of product availability. At the central level (MSL), five out of eight products were stocked out (male condoms, female condoms and Jadelle were available). This situation is more or less reflected at both DHO and health center levels. Microlute and Noristerat were nearly 100 percent stocked out at both levels. The stockout rate on the day of visit was about 70 percent for Jadelle and IUD at both levels. There was no stockout for condom and around 20 percent of the health centers were stocked out on Oralcon-F. The picture is similar for stock out in the previous three months, which indicates a continuous shortage of products. Low product availability was compared with months of stocks on hand. This indicator was estimated only for two products: male condom and Oralcon-F (for other products, stock out and information on monthly consumption were not available). About 58 percent of DHOs and 20 percent of the health centers had over six months of stocks for male condoms. For Oralcon-F, nearly 45 percent of the health centers had one month of stock on hand and 18 percent had over six

months of stock. While the low months of stock indicate a risk of stockouts, the facilities with overstocks risk product damage and expiry.

Storage conditions were better at the DHOs than health facilities. Three of the ten DHOs visited had excellent storage condition. However, storage space is a major issue at the DHOs. Only one DHO had sufficient space available for storing a full supply of contraceptives. Most of the health centers faced issues of insufficient storage space, infestation of pests and lack of temperature control. This is expected given the challenges facing many of the health centers of remoteness and lack of infrastructure. Overstocking of condoms and other contraceptives, often a result of push system put further load on already burdened storage space.

MSL seemed to have adequate vehicles, but from the district onwards, transportation poses a major challenge for distributing products. Lack of sufficient number of functioning vehicles and drivers at and below the district level is a major concern. Transportation of products to the health facilities employed a variety of means, including public transport, private vehicles and bicycles/motorcycles.

Most of the surveyed selected emergency obstetrics products were stocked out at both DHO and health facility levels. Over 40 percent of the DHOs were stocked out of the four major products (magnesium sulfate, oxytocin, metronidazole and ergometrin) and around 30 percents of the health centers were stocked out of oxytocin, metronidazole and ergometrin on the day of visit. This finding raises a major concern about the availability and the quality of emergency obstetrics care at the health centers where women receive this service.

# RECOMMENDATIONS

Given a short and long term funding gap for family planning products, the MOH will need to secure resources for family planning commodity procurement. It is important for the MOH to play a key role in donor coordination. Reproductive health and family planning commodity security will be dependant on a strong Reproductive Health Commodity Security Committee.

This report demonstrates that there are current challenges in the supply chain management for multiple reproductive health products. In order to ensure that the system operates effectively program managers and other stakeholders will need to develop Standard Operating Procedures (SOPs). The MOH and partners have made great strides in the development of SOPs and management of commodities in the HIV/AIDS program. Consultation with program managers during a RH system design workshop can shed light on gaps in the RH system and secure commitment for specific actions aimed at improving current operations. Clear roles and responsibilities will need to be identified and the timely and accurate flow of information clarified.

Effective and efficient monitoring and procurement planning will be dependant on a robust LMIS. Logistics data collected, processed and reported through this system will increase the likelihood of an adequate supply of products for all customers throughout the supply chain. Proper management of this data will ensure accountability of the product, reduce supply imbalances at health facilities and district warehouses and improve supply chain management. Information from the LMIS on consumption, stock levels and product flow will provide accurate and timely information for program managers and policymakers.

In addition to monitoring the logistics data items it is important to establish a system for supervision and monitoring of reporting practices, data quality and storage conditions. This system may be operated in parallel or by integrating the supervision responsibilities for FP in existing supervision visit activities.

Following the design of the system and the development of SOPs and the associated forms, program managers will need to be trained in order to ensure they have the tools to manage the commodities effectively. Investment in the functional improvements of the supply chain operations will result in long-term benefits in cost effectiveness and improved customer service.



# APPENDIX 1. LOGISTICS INDICATORS ASSESSMENT TOOL (LIAT) FOR RH COMMODITIES, ZAMBIA 2008

## Interviewer's Guide

<b>Facility Identification</b>	Record the name of the facility and location. Using the codes provided for each question, place all other responses in the boxes on the right.
<b>Information about Interview</b>	Record the date the interview took place and list the names of the interviewers.
<b>Introduction</b>	Use the text here to guide your introduction of the survey to facility staff.
<b>Questions 01 to 05</b>	Receive permission to conduct the interview and record information regarding the interviewee.
<b>Questions 101 to 118</b>	Record responses by clearly circling either the number or letter that corresponds to the interviewee's response. Questions with letters may have multiple responses; questions with numbers have only a single response.

### **Table 1: Family Planning Commodities - Stock Status**

Record the maximum months of stock, minimum months of stock, and order interval above the table. If the interviewee does not know these, mark DK as the response. To fill in the cells, follow the instructions above the table.

### **Table 2: Selected Reproductive Health Drugs and Kits - Stock Status**

Record the maximum months of stock, minimum months of stock, and order interval above the table. If the interviewee does not know these, mark DK as the response. To fill in the cells, follow the instructions above the table

### **Table 3: Storage Conditions**

Record observations on the main storage area (even if it is a cabinet) by responding to storage conditions 1 to 12 for every facility visited. For large storage areas that require stacking of multiple boxes, continue to complete storage conditions 13 to 17.

**Table 4: Data Quality** Complete the table for all or for a selection of products.

**Table 5: Forecast Accuracy** Complete the table for all or for a selection of products.

**Table 6: Order Fill Rate** Complete the table for all or for a selection of products.

**End Interview** Ask the interviewee/s if they want to ask you any questions. Thank them for their time and cooperation.

**Depo Provera Statement:** **Depo-Provera in Zambia has been found that it does not have HIV antibodies or virus however extensive testing is still being conducted and official instruction to release the product has not yet come from the Ministry.**

## Facility Services and Infrastructure

### FACILITY IDENTIFICATION

Name of the facility: \_\_\_\_\_

Facility location

Province: \_\_\_\_\_

District: \_\_\_\_\_

Code of the facility.....

Unique identifier.....

Mark type of facility: (1=District Health Office; 2=District Hospital; 3=Rural Health Centre; 4=Urban Health Centre; 5=NGO; 9=Other \_\_\_\_\_) .....

Facility characteristics:

Tarmac to the facility? (0=no; 1=yes) .....

Operational electricity on day of visit? (0=no; 1=yes) .....

Operational water in the building on the day of visit? (0=no; 1=yes) .....

Operational telephone or radio on day of visit? (0=no; 1=yes) .....

Province .....

District .....

Facility Code.....

Unique identifier.....

SDP FACILITY TYPE \_\_\_\_\_

Tarmac .....

Electricity .....

Water .....

External Communication .....

### INFORMATION ABOUT INTERVIEW

Date: \_\_\_\_\_

Interviewer/s: \_\_\_\_\_

\_\_\_\_\_

DAY/ MONTH/ YEAR

<input type="text"/>							
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## Introduction

**Introduce all team members and ask facility representatives to introduce themselves.**

**Explain the objectives of this survey:**

Good day. My name is \_\_\_\_\_. My colleague(s) and I are representing the MOH in Zambia. We are conducting a survey regarding the health commodity logistics system. We are looking at the availability of selected commodities and information about how you order and receive family planning products. We are visiting selected health facilities throughout the country; this facility was selected to be in the survey. The objectives of the survey are to collect current information on logistics system performance and stock status of key family health products.

The results of this national survey will provide information to make decisions and to promote improvements. The survey has been/will be conducted again in the future to measure changes in the family planning logistics system. Based on the findings of this exercise throughout the country recommendations will be made for system improvements.

We would like to ask you a few questions about the family planning products and supplies available at this facility. In addition, we would like to actually count selected products you have in stock today and observe the general storage conditions. In addition we will be collecting this facilities geographical location using a GPS device.

We would like to ask some questions of the MCH person first and then move to the pharmacy store and ask questions of the supplies manager. Do you have any questions?

No.	Question	Code Classification	Go To
01.	Can we continue?	YES _____ 1 No _____ 0	→ STOP
02.	Name, title and mobile phone number of person interviewed for this section		
03.	Who is the principal person responsible for managing family planning supplies at this facility?	Nurse ..... 1 Midwife ..... 2 Clinical Officer/Medical Licenciate... 3 Pharmacy Technologist ..... 4 Pharmacy Assistant ..... 5 Pharmacist ..... 6 Environ. Health Tech. .... 7 Other (Specify) _____ 9	
04.	Name and title of person responsible for managing family planning supplies at this facility	_____ _____	
05.	Number of months or years this person has been managing family planning supplies at this facility?	< 6 Months..... 1 6 Months to 1 Year ..... 2 1 to 3 Years ..... 3 3 to 5 Years ..... 4 Over 5 Years ..... 5	

06.	Is supplies/stock management the primary role of this person at this facility?	YES.....1 No ..... 0	
07.	ASK AT SERVICE DELIVERY POINTS: How many personnel at this facility are trained to insert Jadelle?	None..... 0 1 person.....1 2 persons..... 2 3 or more..... 3	
08.	ASK AT SERVICE DELIVERY POINTS: How many personnel at this facility are trained to insert IUDs?	None..... 0 1 person.....1 2 persons..... 2 3 or more..... 3	
09.	MCH FOCAL POINT PERSON: What are the two most common alternate methods requested by previous Depo Provera users?	None.....A Male Condom.....B Female Condom.....C Oralcon-F .....D Microlut.....E Noristerat .....F IUD .....G Jadelle .....H Other (Specify).....W	
10.	MCH FOCAL POINT PERSON: What are the two most common alternate methods dispensed to previous Depo Provera users?	None.....A Male Condom.....B Female Condom.....C Oralcon-F .....D Microlut.....E Noristerat .....F IUD .....G Jadelle .....H Other (Specify).....W	

KINDLY THANK AND RELEASE THE IN-CHARGE OF THE FACILITY AND RESUME THE INTERVIEW WITH THE PERSON IDENTIFIED AS MANAGING FAMILY PLANNING SUPPLIES AT THE FACILITY.

First, ask the following questions of the commodity manager. After asking questions 101–119, visit the warehouse, storeroom, or storage area where the health products listed are managed. If you are referred to another staff member for the stocktaking exercise, introduce the survey goals and objectives as you did during the introduction. Review the list of products that are included in the survey.

No.	Questions	Code Classification	Go To/ Comments
101.	Does the facility use and fill out the following logistics forms to manage family planning Products? Note: These forms may be used at any location in the facility, indicate in comments where they are used.		
	A. stock control cards	YES _____ 1 NO _____ 0	
	B. FAMILY PLANNING DAILY REGISTER	YES _____ 1 NO _____ 0	
	C. TALLY SHEETS	YES _____ 1 NO _____ 0	
	D. STOCK CONTROL BOOK	YES _____ 1 NO _____ 0	
	E. OTHER	YES _____ 1 NO _____ 0	
102.	DO YOU USE THE FOLLOWING LMIS FORMS FOR ORDERING AND ORDER MANAGEMENT?		
	A. MSL Order Form (District /hospital to MSL)	YES _____ 1 NO _____ 0	
	B. MSL Product Return Form (District to MSL)	YES _____ 1 NO _____ 0	
	C. Discrepancy Advice Note (District to MSL)	YES _____ 1 NO _____ 0	
	D. Supply Voucher (HC to district or another facility)	YES _____ 1 NO _____ 0	
	E. Internal Requisition Form (store MCH)	YES _____ 1 NO _____ 0	
	F. other	YES (SPECIFY) _____ 1 NO _____ 0	
103.	When was the last time this facility sent an order for family planning products?	Never ..... 1 Within the last month ..... 2 2 months ago ..... 3 3 months ago ..... 3 More than 3 months ago ..... 4	
104.	How often are you supposed to send orders reports to the higher level? <i>(CIRCLE ALL THAT APPLY)</i>	Monthly.....A Quarterly .....B SEMI-ANNUALLY .....C Annually .....D Other .....W	
105.	What LMIS forms do you use for reporting?		

	A. monthly summary form (health facility)	YES _____ 1 SPECIFY FORM TITLE _____ No .....0	
	B. quarterly report (district)	YES _____ 1 No .....0	
	D. other	YES (SPECIFY) _____ 1 No .....0	
OBTAIN A COPY OF THE REPORTING FORMS FROM THE DHO OR DOCUMENT THE CONTENTS OF THE FORM.			
Do summary reports include the following?			
106.	A. stock on hand	YES.....1 NO.....0	
	B. quantities used	YES .....1 NO.....0	
	C. losses and adjustments	YES .....1 NO.....0	
107.	When was the last time this facility sent a report for family planning products?	Never ..... 1 Within the last month .....2 2 months ago .....3 3 months ago .....3 More than 3 months ago .....4	
108.	How often are you supposed to send these reports to the higher level? <b>(CIRCLE ALL THAT APPLY)</b>	Monthly.....A Quarterly .....B SEMI-ANNUALLY .....C Annually .....D Other _____W	
109.	ASK 107 AND 108 AT THE DHO ONLY How many facilities are supposed to send LMIS orders/reports to this facility?	_____	
110.	ASK 107 AND 108 AT THE DHO ONLY How many facilities submitted complete LMIS reports for the month of January?	_____	
111.	How did you learn to complete the forms/records used at this facility? <b>(CIRCLE ALL THAT APPLY)</b> NOTE: WORKSHOPS INCLUDE PMTCT, HIV TEST KIT OR ARV LOGISTICS MANAGEMENT SYSTEM TRAINING, DILSAT TRAINING OR ZAMBIA LOGISTICS MANAGEMENT ORIENTATION WORKSHOP	Never learned .....A During a logistics workshop .....B On-the-job training .....C On-the-job (self-learning) .....D Other (specify)_____W	

112.	Who determines this facility's resupply quantities? <i>(CIRCLE ALL THAT APPLY)</i>	The facility itself .....A Higher-level facility .....B Other _____ W
113.	How are the facility's resupply quantities determined?	Formula (specify) _____ 1 Don't know .....2 Other means ..... 8
114.	When did you receive your most recent supervision visit?  <i>CHECK VISITORS BOOK, IF NECESSARY.</i>	Never received..... 1 Within the last month .....2 1 to 3 months ago .....3 4 to 6 months ago .....4 More than 6 months ago .....5 <i>Other (specify) _____ 9</i>
115.	When did you receive your last supervision visit that included drug management (e.g., stock cards checked, reports checked, expired stock removed, supplies checked, storage conditions reviewed)?	Never received..... 1 Within the last month .....2 1 to 3 months ago.....3 4 to 6 months ago.....4 More than 6 months ago .....5 <i>Other (specify) _____ 9</i>
ASK THE FOLLOWING QUESTIONS OF THE SUPPLIES MANAGER AT THE FACILITIES MAIN STORE		
116.	Who is responsible for transporting products to your facility? <i>(CIRCLE ALL THAT APPLY)</i>	Local supplier delivers .....A MSL delivers .....B District delivers .....C  This facility collects .....D OTHER (SPECIFY) _____ W
117.	What type of transportation is most often used?	MSL vehicle.....1 Facility vehicle .....2 District vehicle .....3 Public transportation .....4 Private vehicle .....5 Boat .....6 Motorcycle .....7 Bicycle .....8 On foot .....9 <i>Other (specify) _____ 99</i>
118.	On average, approximately how long does it take between ordering and receiving products to this facility?	Less than 2 weeks ..... 1 2 weeks to 1 month .....2 Between 1 and 2 months .....3 More than 2 months ..... 4
119.	How many emergency orders for family planning have you placed in the last 3 months?	None .....0 Facility does not place orders..... 1 1 .....2 2 .....3 3 .....4 More than 3.....5

***Thank you for you time and information. You have been very helpful. Our remaining questions will require looking at products in the storeroom and speaking with the person who oversees the store.***



**TABLE 1: FAMILY PLANNING COMMODITIES Stock Status (October 1, 2007– December 31, 2007 and the day of visit)**

Column:

1. Name of all authorized products that will be counted
2. Unit of count for the product

Note: Columns 1 and 2 should be filled out before questionnaires are printed for the survey.

3. Record whether or not the product is managed at this facility, answer Y for yes or N if no.
4. Check if the stock control card is available, answer Y for yes or N for no.
5. Check if the stock control card has been updated within the last 30 days, answer Y for yes or N for no. Note: If the stock control card was last updated with the balance of 0 and the facility has not received any resupply, consider the stock control card up-to-date.
6. Record the balance on the stock control card.
7. Record if the facility has had any stockout of the product during the 3 month period from October 1 – December 31, 2007, answer Y for yes or N for no.
8. Record how many times the product stocked out during the 3 month period from October 1 – December 31, 2007 according to stock cards, if available.
9. Record the total number of days the product was stocked out between October 1 – December 31, 2007, only.
10. Record the quantity of product dispensed to users or issued from the storeroom between October 1 – December 31, 2007, only.
11. Record the number of months the issued data represents (may be 3 months or less); record the months for which there is any data available, including 0.
12. Record the physical count in the storeroom.
13. Record if the facility (as a whole) is experiencing a stockout of the product on the day of the visit, answer Y for yes or N for no. If products are available outside the storeroom there is no stockout. Visually verify that usable products are in stock.
14. Record the quantity of expired products. Count all expired products on the day of the visit. If there are products that are near expiry (within one month), note the product and quantity in the comments section.

Maximum months of stock \_\_\_\_\_ Minimum months of stock \_\_\_\_\_ Order interval \_\_\_\_\_

Record where this data was collected (MCH or Pharmacy Store): \_\_\_\_\_

Source document for stockout information between October 1 and December 31, 2007 \_\_\_\_\_

Source document for issues/consumption: \_\_\_\_\_

Product	Units of count	Managed at this facility (Y/N)	Stock control card available? (Y/N)	Stock card updated? (Y/N)	Balance on stock card	Stockout (Oct 1- Dec 31, 2007) (Y/N)	Was the whole facility experiencing a stockout? (Y/N)	Number of Stockouts	Total number of days	Total issued (Oct 1- Dec 31, 2007)	Number of months of data available	Physical inventory	Stockout today? (Y/N)	Quantity of expired products
1	2	3	4	5	6	7	7a	8	9	10	11	12	13	14
Male Condom	Piece													
Female Condom	Piece													
Oralcon-F	Cycle													
Microlut	Cycle													
Depo Provera	Vial													
Noristerat	Vial													
IUD	Insert													
Jadelle	Insert													
Sterile Trocar	Piece													

Comments:

**TABLE 2: SELECTED REPRODUCTIVE HEALTH DRUGS AND KITS Stock Status (day of visit)**

Column:

1. Name of all authorized products that will be counted
2. Unit of count for the product

Note: Columns 1 and 2 should be filled out before questionnaires are printed for the survey.

3. Record whether or not the product is managed at this facility, answer Y for yes or N if no.
4. Check if the stock card is available, answer Y for yes or N for no.
5. Check if the stock card had been updated within the last 30 days, answer Y for yes or N for no. Note: If the stock card was last updated with the balance of 0 and the facility has not received any resupply, consider the stock card up-to-date.
6. Record if the facility (as a whole) is experiencing a stockout of the product on the day of the visit, answer Y for yes or N for no. If products are available outside the storeroom there is no stockout. Visually verify that usable products are in stock.

Maximum months of stock \_\_\_\_\_ Minimum months of stock \_\_\_\_\_ Order interval \_\_\_\_\_

Product	Units of count	Managed at this facility? (Y/N)	Stock card available? (Y/N)	Stock card updated? (Y/N)	Stockout today? (Y/N)
1	2	3	4	5	6
Magnesium Sulfate	Ampoule				
Magnesium Sulfate	Vial				
Oxytocin	Ampoule				
Ergometrine	Ampoule				
Metronidazole injection	100 mil				
IV Fluid	1000ml (normal saline, 5% dextrose, ringers lactate)				
IV Giving Set	Set				
Sealed Delivery Kit from MSL	Kit	If no, does the facility have the supplies necessary for safe delivery (Y/N) _____			If yes, does the facility have the supplies necessary for safe delivery (Y/N) _____



**TABLE 3: Storage Conditions**

Items 1–12 should be assessed for the main storage facilities for contraceptives that are ready to be issued or distributed to clients. Place a check mark in the appropriate column based on visual inspection of the storage facility; note any relevant observations in the comments column. **To qualify as “yes,” all products and cartons must meet the criteria for each item.**

No	Description	No	Yes	Comments
01.	Products that are ready for distribution are arranged so that identification labels and expiry dates and/or manufacturing dates are visible.			
02.	Products are stored and organized in a manner accessible for first-to-expire, first-out (FEFO) counting and general management.			
03.	Cartons and products are in good condition, not crushed due to mishandling. If cartons are open, determine if products are wet or cracked due to heat/radiation (fluorescent lights in the case of male condoms, cartons right-side up for Depo-Provera®).			
04.	The facility makes it a practice to separate damaged and/or expired products from usable products and removes them from inventory.			
05.	Products are protected from direct sunlight on the day of visit.			
06.	Cartons and products are protected from water and humidity on the day of the visit.			
07.	Storage area is visually free from harmful insects and rodents. (Check the storage area for traces of bats and/or rodents [droppings or insects].)			
08.	Storage area is secured with a lock and key, but is accessible during normal working hours; access is limited to authorized personnel.			
09.	A thermometer is available and temperatures are recorded at least twice daily (AM and PM). Visually verify.			
10.	Products are stored at the appropriate temperature during all seasons according to product temperature specifications (ask managers).			
11.	Roof is maintained in good condition to avoid sunlight and water penetration.			
12.	Storeroom is maintained in good condition (clean, well lit, all trash removed, sturdy shelves, organized boxes).			
13.	The current space and organization is sufficient for existing products and reasonable expansion (i.e., receipt of expected product deliveries for foreseeable future).			

The additional standards below can be applied to any facility large enough to require stacking of multiple boxes.

No.	Description	No	Yes	COMMENTS
14.	Products are stacked at least 10 cm off the floor.			
15.	Products are stacked at least 30 cm away from the walls and other stacks.			
16.	Products are stacked no more than 2.5 meters high.			
17.	Fire safety equipment is available and accessible (any item identified as being used to promote fire safety should be considered).			
18.	Products are stored separately from insecticides and chemicals			

**Additional guidelines for specific questions:**

**Item 2:** In noting proper product arrangement, consider the shelf life of the different products.

**Item 3:** Check cartons to determine if they are smashed due to mishandling. Also, examine the conditions of the products inside opened or damaged cartons to see if they are wet, cracked open due to heat/radiation (e.g., for condoms, because of fluorescent lights), or crushed.

**Item 4:** Conduct the discarding of damaged or expired products according to the facility's procedures (this may differ from one facility to another). Specify if procedures exist and note what they are.

**Item 7:** It is important to check the storage area for traces of rodents (droppings) or insects harmful to the products.

**Item 8:** This refers to either a warehouse secured with a lock or to a cabinet in a clinic with a key.

**Item 16:** Fire safety equipment does not have to meet international standards. Consider any item identified as being used to promote fire safety (e.g., water bucket, sand). Do not consider empty and/or expired fire extinguishers as valid fire safety equipment.

**TABLE 4: LMIS DATA QUALITY: USABLE STOCK ON HAND AS OF DECEMBER 2007 LMIS REPORT**

**Column:**

1. List the same products as in table 1 or use a sample of those products. Include only those products that are managed by the facility. (Note: Do this before finalizing the questionnaire and making photocopies.)
2. Get the most recent LMIS report showing the selected products, and record the stock on hand from the LMIS report in column 2.
3. Write the quantity of usable stock on hand from the stock records from the time of the selected LMIS report.
4. Note the reasons for any discrepancy.

Method/Brand/Product	Usable Stock on Hand (at time of most recent LMIS report)		
	According to the December 2007 LMIS report (monthly summary report)	From stock control cards from time of LMIS report	Reasons for discrepancy
1	2	3	4
Male Condom			
Female Condom			
Oralcon-F			
Microlut			
Depo Provera			
Noristerat			
IUD			
Jadelle			

**TABLE 5. PERCENTAGE DIFFERENCE BETWEEN QUANTITY ORDERED AND QUANTITY RECEIVED - SDP**

Source Document: Last completed Supply Voucher

**Column:**

1. List the same products as in table 1 or use a sample of those products. (Note: Do this before finalizing the questionnaire and making photocopies.)
2. Enter the quantity ordered for the last order period for which products should have been received (i.e., don't include open orders whose expected receipt date has not arrived).
3. Enter the date the order was placed using day/month/year format (DD/MM/YYYY)
4. Enter the quantity received in the last order.
5. Enter the date the order was received using day/month/year format (DD/MM/YYYY).

Method/Brand/Product	Date Order Placed (DD/MM/YYYY)	Quantity Ordered for Last Order Period	Date Order Received (DD/MM/YYYY)	Quantity Received in Last Order
1	2	3	4	5
Male Condom				
Female Condom				
Oralcon-F				
Microlut				
Depo Provera				
Noristerat				
IUD				
Jadelle				

**Comments:**

**TABLE 6. MSL Order Fill Rate to Be Calculated at Issuing Warehouses (DHOs)**

Source Document: MSL dispatch note or other

Note: Collect in advance the latest supply vouchers that contain contraceptives for the facilities you will be visiting while at the DHO.

**Instructions**

1. Contains all authorized products of interest in column 1.
2. Obtain order forms received by this district during the month December 2007.
3. Obtain issues records that correspond to each order, if not shown on the order forms.
4. Record any notes or comments about why orders weren't filled in their entirety.

↓  Product	<i>Quantity ordered</i>	<i>Quantity supplied</i>
Male Condom		
Female Condom		
Oralcon-F		
Microlut		
Depo Provera		
Noristerat		
IUD		
Jadelle		
<b>Comments, Notes, Reasons for Underfilled Orders</b>		



**Ask the person/people you interviewed if they want to ask you any questions.**

---

Comments or general observations on products management:

---

***Thank the person/people who talked with you. Reiterate how they have helped the program achieve its objectives, and assure them that the results will be used to develop improvements in logistics system performance.***

NOTES/COMMENTS:



# APPENDIX 2. LIST OF LIAT DATA COLLECTORS

## Logistics Indicators Assessment Tool (LIAT) Data Collectors

Province	Name	Title and Institution
<b>LUSAKA</b>		
Lusaka District Chongwe District	Mika Bwembya	Senior Logistics Advisor USAID   DELIVER PROJECT
	Dr. Alemayehu Girma	MOH/UNFPA
<b>SOUTHERN</b>		
Choma District Monze District	Peter Lisulo	Logistics Advisor USAID   DELIVER PROJECT
	Annie Munjita Salungu	MOH - LIVINGSTONE
Mazabuka District	Erika Ronnow	Senior Research and Evaluation Advisor USAID   DELIVER PROJECT
	Cuthbert Mumbi	Logistics Advisor USAID   DELIVER PROJECT
	George Kadimba	University Teaching Hospital (UTH)
Livingstone District	Disha Ali	Research and Evaluation Advisor USAID   DELIVER PROJECT
	Gamariel Simpungwe	Senior Logistics Advisor USAID   DELIVER PROJECT
<b>NORTH-WESTERN</b>		
Solwezi District Kasempa District	John Ngosa	MOH/UNFPA
	Catherine Chidumayo	MOH - SOLWEZI
<b>LUAPULA</b>		
Kawambwa District Mwense District	Ethan Collins	Monitoring and Evaluation Advisor USAID   DELIVER PROJECT
	Emmanuel Mubanga	Pharmacist, MOH - Manza



# APPENDIX 3. LIST OF FACILITIES SURVEYED

## Logistics Indicators Assessment Tool (LIAT) Facilities Visited

<i>Province</i>	<i>District</i>	<i>Health Facility</i>
Luapula	Kawambwa	Kawambwa Hospital
		Kawambwa DHO
		Chibote
		Chipunka
		Kanengo
		Lufuba
		Salanga
		Mushota Zonal
	Mwense	Mwense DHO
		Kashiba
		Katuta
		Lukwesa
		Mukonshi
		Mwenda
		Lusaka
Chainda		
Kampekete		
Lukwipa		
Mphango		
Palabana		
Lusaka	Lusaka DHO	
	Chainda	
	Civic Centre	
	Kalingalinga	
	Lilayi Police	
	Mtendere	
	State Lodge Clinic	
	Lusaka Branch (PPAZ)	
University Teaching Hospital (UTH)		
Northwestern	Kasempa	Kasempa DHO
		Dengwe

		Kankolonkolo
		Lunga
		Njenga
	Solwezi	Solwezi General Hosp.
		Solwezi DHO
		Chowwe
		Kanuma
		Kyanyika
		Lukendo
		Maheba
		Mapunga
		Mujimanzovy
		Mumena
		Muyashi
		Mutanda
		Mukumbi
Southern		Choma DHO
		Batoka
		Kanchomba
		Kasiya
		Mbabala
		Muzoka
		Pemba
		Simaubi
		Choma Railway Surgery
		Popota
	Mazabuka	Mazabuka DHO
		Chikankata HAHC
		Chikonkomene
		Naluama
		Lubombo
		Mugoto
		Munjile
		Nega Nega
		Riverside Farm Clinic
		Kaleya
		Mukuyu
		Musuma
	Monze	Monze DHO
		Bweengwa

		Hakunkula
		Kanuundwa
		Luyaba
		Chisekesi
		Siatontola
	Livingstone	Livingstone DHO
		Livingstone Airport Clinic
		Maramba



# APPENDIX 4. PARTICIPANT LIST FOR LSAT ACTIVITY

## Participant List for LSAT; Cresta Golfview Hotel, Lusaka

<i>Name</i>	<i>Position/Title</i>	<i>Organization</i>	<i>Cell Phone Number.</i>	<i>Email</i>
Luke Alutuli	Pharmacist	MoH	0977 660033/0977 460543	N/A
Nawa Wakumelo	Pharmacy Technologist	Mongu DHMT	0977 170619	<a href="mailto:nawawaku@yahoo.co.uk">nawawaku@yahoo.co.uk</a>
Lisa Chompa Susiku	MCH Coordinator	MoH	0977 456076	N/A
Bridget Banda	Enrolled Midwife/ MCH In-Charge	Kabwe DHMT	0979 358507	N/A
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Manda Zulu	Pharmacy In-Charge	Chipata DHMT	0977 376385/0955 439428	N/A
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Mr. Chiwenya	Assistant Director, Health Planning and Budgeting	MOH	N/A	<a href="mailto:nchikwenya@moh.gov.zm">nchikwenya@moh.gov.zm</a>
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Walter Proper	Country Director	USAID   DELIVER PROJECT	N/A	N/A

David Papworth	Deputy Country Director	USAID   PROJECT	DELIVER	N/A	N/A
Erika Ronnow	Research & Evaluation Advisor	USAID   PROJECT	DELIVER	N/A	N/A
Ethan Collins	Monitoring and Evaluation Advisor	USAID   PROJECT	DELIVER	N/A	N/A
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# APPENDIX 5. LOGISTICS SYSTEM ASSESSMENT TOOL (LSAT) FOR FP IN ZAMBIA

## Logistics System Assessment Tool (LSAT) — Zambia

### BACKGROUND INFORMATION

Date: 06/02/2008(DD/MM/YY)

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Facilitator: Erika Ronnow, Disha Ali, Ethan Collins Country: Zambia

Notetaker: Erika Ronnow, Disha Ali, Ethan Collins

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Name of program: Family Planning

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Type of program:  Government  NGO

---

Number of facilities visited: 80 during LIAT

---

Levels visited:  Central  District  
 Service delivery point

---

Product categories covered in this assessment: (Check all that apply.)

Contraceptives

Limited RH drugs and supplies in the LIAT

---

Total number of products managed in the system being assessed: \_\_\_\_\_

---

**General notes:**

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Attach a copy of the organizational chart that describes the logistics personnel structure for the supply chain being assessed. – From John’s presentation

## SECTION I: ORGANIZATION AND STAFFING

1. Does the national level have a logistics management unit?  
 No *Comments: handled through the Pharmacy*  
*Unit*

*If no, please check NO in questions 2 a–h and follow instructions for question 2.*

2. Is the logistics management unit fully responsible for the following activities (If not, note the departments or positions responsible for each logistics task.):
- a. managing and using the logistics management information system?  
 Yes  No *Comments:*
  - b. forecasting quantities needed?  
 Yes  No *Comments:*
  - c. procurement?  
 Yes  No *Comments:*
  - d. inventory management, storage, and distribution?  
 Yes  No *Comments:*
  - e. product selection?  
 Yes  No *Comments:*
  - f. staffing of logistics positions?  
 Yes  No *Comments:*
  - g. budgeting for the logistics system?  
 Yes  No *Comments:*
  - h. supervision and logistic staff development?  
 Yes  No *Comments:*

3. Are there documented guidelines for:
- a. managing and using the logistics management information system?  
 No *Comments:*
  - b. forecasting quantities needed?  
 No *Comments: CCM through UNFPA and DELIVER used demographic projections*
  - c. procurement?  
 Yes *Comments: MOH Procurement Unit*
  - d. inventory management, storage, and distribution?  
 Yes *Comments: Needs to be reviewed*
  - e. product selection?  
 Yes *Comments: Also in development; RHU FP Section (FP Sub-Committee Working Group which has participation outside of*

## SECTION I: ORGANIZATION AND STAFFING

MOH) makes recommendations to the PHR Directorate Note: Has not met for “some time”

f. staffing of logistics positions?

No

Comments:

g. budgeting for the logistics system?

No

Comments:

h. supervision and staff development?

Yes

Comments: General supervision tools but they do not comprehensively address logistics; Some tools are under development with MOH, WHO and UNFPA

4. Is there a full-time logistics officer-in-charge?

Yes

as advisor

Comments: John Ngosa funded by UNFPA

If no, skip to question 6.

5. Does the logistics officer(s)-in-charge have the same level of authority for decision making as other functional unit heads?

No

Comments: Recommendations only

6. What activities are used to coordinate key logistics tasks among those responsible for logistics?

joint work plans

formal meetings

written communications

other\_RH Sub Committee (not meeting); FP

Technical Working Group under the RH Sub Committee (meeting every 2 months); RHCS (meeting quarterly)

7. How many personnel positions have key logistics tasks?

Only one at central level; Provincial Pharmacist; Pharmacy in-charge and/or MCH Coordinator at the DHO and health facilities (part of responsibilities)

8. How many of the positions with key logistics tasks are currently filled? If they are not filled, why not?

It may not be a pharmacist, but someone is tasked with the responsibilities. Note that issues surround the level of qualification of those filling the positions. High turn-over rate of facility staff

## SECTION I: ORGANIZATION AND STAFFING

9. Provide or map an organogram that includes the relationship among key stakeholders, including government units, donors, other cooperating agencies and other supply chains (in terms of responsibilities for logistics activities).

John's presentation (adapt for NGOs reporting to the districts where they get supplies)

- 
10. Does the logistics system have a strategic plan that covers the next 1–3 years? Please attach.  
 No *Comments:*

- 
11. What issues outside the supply chain impact the functioning of the supply chain?  
(Note: Include major political, cultural, or economic factors such as political events, labor disputes, etc.)

Human resource constraints

- 
12. Is there a national population policy?  
 Yes *Comments:*

*If no, skip to question 19.*

- 
13. [CS] Does the national population policy address contraceptive security?  
 No *Comments:*

- 
14. Does the population policy address HIV/AIDS and/or the link between contraceptives and HIV/AIDS?  
 No *Comments:*

- 
15. Does the population policy influence the annual planning process?  
 Yes *Comments:*

- 
16. [CS] Are there laws and regulations that hinder the importation or local production of contraceptives/other reproductive health commodities? If yes, give examples.  
 No *Comments: PRA enforcing regulation of imported contraceptives following the recent Depo issue. This could affect future shipments.*
-

## SECTION I: ORGANIZATION AND STAFFING

17. Are there policies or other restrictions that limit or encourage client access to family planning services or contraceptives?

- Yes  
are free to clients

*Comments: No limits, but consultation and products*

---

*In no, skip to question 21.*

---

18. Describe the policies.

Free

19. How are policymakers engaged in improving access to contraceptives?

Engaging decision makers goes through the channel of RHCS recommendations to the PHD and PS  
FP is currently competing with other priorities for limited funds, particularly in the environment of HIV and PEPFAR

20. Other comments on organization and staffing:

Facing challenges in changing the system. In recognising the importance of the supply chain and it's impact on program effectiveness, little GRZ funds are devoted to logistics

Discussion with WB to fund MSL Officer and vehicle at each DHO

STRENGTHS	WEAKNESSES
<p>By design all public health facilities offer free contraceptives</p> <p>Existence of a Logistics Officer at the central level is free</p> <p>Existence of functional RHCS Committee</p> <p>Monthly delivery to every district every month</p>	<p>Delay in supply due to transport from district to health facilities</p> <p>Only logistics position centrally is externally funded</p> <p>Central level stockouts due to insufficient funding for commodity procurement</p> <p>Human resource constraints</p>

### RECOMMENDATIONS

MOH to take ownership of the logistics officer position

Design improved LMIS to make consumption data available to commodity managers at all levels of the system.

Create secured budget line item for contraceptives specifically with buy-in from the MOH and MOF.

## SECTION II: Logistics Management Information System (LMIS)

1. Is there a logistics management information system?

Yes  
supplies

*Comments:* for drugs and medical

*If yes, go to question 3.*

2. Is logistics information collected through another information system (e.g., HMIS)? Describe briefly.

3. Does the information system (LMIS, HMIS, other) include:

a. stockkeeping records (e.g., inventory control cards, bin cards, stock registers) at all levels?

Yes  
center level.

*Comments:* available at the health

b. requisition and issue records (e.g., bills of lading, shipping records, requisition/issue vouchers) at all levels?

Yes  
landing exist; different records are available at each level.

*Comments:* Not sure if the bills of

c. dispensed-to-user records at service delivery points?

Yes

*Comments:*

d. summaries of consumption data at levels above service delivery points (e.g., districts, provinces, central, etc.)?

Yes  
provincial level; data goes from HC to district

*Comments:* data does not reach the

e. stock on hand?

Yes

*Comments:* monthly physical counts

4. Do information system reports at all levels of the system show:

a. inventory balance (stock on hand)?

Yes

*Comments:*

b. quantity dispensed or issued during a specified reporting period?

Yes

reports are produced

*Comments:* monthly and quarterly

c. losses and adjustments?

Yes

*Comments:* stock control card

d. quantities received?

Yes

*Comments:*

## SECTION II: Logistics Management Information System (LMIS)

5. Do LMIS or other information system reports received at the central level provide information on stock status at the SDP level (i.e., do central level staff have accurate routine information on which SDPs are stocked out, understocked, adequately stocked, or overstocked)?

No

*Comments:* what is mostly reported at the central level is the stock at the district; the reports do not capture the stock at the facility level.

---

6. How often are reports sent to each higher level of the system? Map the report flow.

Monthly report, quarterly report, yearly report; from HC to district to MOH.

Monthly FP Reporting Form, this form used for the quarterly and annual reports.

---

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

In FP there are no tools that managers have to monitor reporting rates, however deadlines are given for report submission.

---

8. What is the approximate percentage of information system reports received in time to be used for logistics decisions (ordering, distribution, etc.) at the following levels:

a. Central? 40%

b. Provincial? No focal person for FP \_\_\_\_\_

c. District? 75%

d. If below 100% at any level, explain why facilities don't report or don't report on time.

Human resources; availability of reporting forms

Duplication of efforts = system of data entry not coordinated

Service providers overburdened, too much reporting

Distance and lack of transport.

---

9. Are information system records reconciled against physical inventories at each level?

Yes

a. If yes, how is this done?

Physical counts are done at the end of month.

b. How often?

Monthly

---

## SECTION II: Logistics Management Information System (LMIS)

10. Is the information system automated at the following levels:

a. Central?

No

*Comments:* MACs software for distribution at MSL but does not have the same utility as SCMgr. and since installation the servers have crashed and burned (literally) six times within one month

b. Provincial?

No

*Comments:* no FP focal person

c. District?

No

*Comments:*

d. Service delivery points?

No

*Comments:*

---

*If no to questions 10 a–d, skip to 12.*

---

11. Briefly describe the functions and processes that are automated.

Only central leve MACs software

---

12. Is external assistance provided to manage the information system? Describe.

No.

---

13. Is the information system used to monitor and evaluate the program's performance?

Yes

*Comments:* self assessment tool

---

14. How is logistics data recorded, managed, analyzed, and used at each level?

Recording: Tally sheets, registers, self-assessment

Analysis: self-assessment tool

---

15. What indicators related to logistics and/or product availability does the information system track (e.g., stockout rate, percentage of reporting, rational prescribing practices, etc.)?

Stockout rate

a. Who tracks these indicators? How often? Program managers, service providers track on a daily basis.

---

## SECTION II: Logistics Management Information System (LMIS)

16. What decisions are based on information system reports?

- forecasting    procurement    transport/delivery  
 inventory management    how much to resupply
- 

17. Are logistics data used at each level of the system as appropriate for:

a. continuous monitoring of stock balances?

Central

Yes                      *Comments:*

Province

No                         *Comments: NA*

District

Yes                       *Comments:*

Service delivery point

Yes                       *Comments:*

b. calculating quantities for resupply?

Central

Yes                       *Comments:*

Province

No                         *Comments: NA*

District

Yes                       *Comments:*

Service delivery point

Yes                       *Comments:*

---

18. What feedback mechanisms are in place to channel logistics information back to lower levels?

- supervisory visit

*Comments:*

---

19. Are issues data or dispensed-to-user data cross-checked against other data sources (e.g., service statistics, demographic surveys, etc.)?

Yes                       *Comments:*

---

*If none, skip to 21.*

---

## SECTION II: Logistics Management Information System (LMIS)

20. a. What type of data are they checked against?

- service statistics    demographic statistics    supervisors reports

b. How often are they checked against each data type?

- quarterly

c. Who is responsible for cross-checking? District information officers/MCH focal person

---

21. a. Is logistics information provided to appropriate decision makers for logistics planning (e.g., Ministry of Health, Ministry of Finance, UNFPA, USAID, World Bank, NGOs)?

- Yes                      *Comments:*

b. What information is provided?

Number of clients; commodities supplied

c. Who provides the information?

District information officer

d. Who receives the information?

HMIS / information specialist

e. How often?

- monthly    quarterly    annually

f. How is the information used?

Planning, forecasting, budgeting, procurement, product selection, storage & distribution, staffing.

---

22. Other comments on LMIS:

NOTE: NO LIMS

Elsewhere – space is limited due to space being taken up by HIV services as PMTCT.

All is HMIS – no 3 essential data items. Used to be, but told provincial level team not to collect.

Before HMIS implementation methods available 3 essential – some still going to district but no further.

Reporting system is there but it is broken down.

Do have “Log Quarterly Report” – ask John N.

Forms are there but not being filled out.

What happened to DILSAT?

## SECTION II: Logistics Management Information System (LMIS)

1. Provisional supervision team told Copperbelt to stop using
2. Rollout assessment found it to be too bulky and laborious, but MOH not officially saying it is no longer in use.

Rec: Revisit DILSAT – not monthly

MOH: having DILSAT training from June

Some districts still using (meant to keep house in order). Info remains with districts.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Organizational structure exists (Central, Provincial, SDPs)</li> <li>• Plenty of facilities</li> <li>• Trained staff/HR</li> <li>• Political will</li> <li>• Incorporating partners (UNFPA, USAID, Etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• No focal person at certain levels</li> <li>• Lack of proper reporting system (gaps in system)</li> <li>• Inadequate human resources trained in FP</li> <li>• Erratic supply of FP commodities</li> <li>• Lack of knowledge and information on FP in some areas</li> <li>• No access to services in some areas</li> <li>• Infrastructure needs improvement (storage space)</li> <li>• Lack of supervisory tools</li> </ul>

### RECOMMENDATIONS

- Focal person at all levels by 2<sup>nd</sup> quarter of 2008
- MOH (with partners) to train family planning services providers in all 72 districts, five per district
- MOH to put in place a standardized reporting system
- Improve the infrastructure in health centers
- MOH to develop a supervisory tool, along with partners
- Ensure that all FP commodities are available all the time

### SECTION III: Product Selection

1. Is there a National Drug Policy document?

Yes

*Comments:*

*If no, skip to question 4.*

2. a. When was the document published? Attach a copy.

b. Who developed it? MOh & stakeholders (1996)

c. How often is it updated? never

d. Who receives it?

e. How is it used? NDP Implementation Committee

3. Does the National Drug Policy contain written guidelines for donation of products?

No

*Comments:* Guidelines on donation is a separate document which has not yet been disseminated

4. Is duty tax imposed on imported drugs or products?

No

*Comments:* USG obtains a waiver for contraceptives it donates and contraceptive for the MOH public sector are not taxed

5. Are donated commodities exempt from duty tax?

Yes

*Comments:*

6. How are new drugs or products registered? Through PRA. Manufactures submit dossiers and applications to PRA

7. Does the program have a written policy for maintaining continuity of brands and avoiding unnecessary duplication of interchangeable products (e.g., hormonal formulations of contraceptives and socially marketed products)?

No

*Comments:* GRZ however needs to approve any changes to brands; generic preferred, though reality is more brands are used and procured. On the list there are more brands than generic

### SECTION III: Product Selection

8. a. Is there an essential services package?

No

b. If yes, what services are included?

Primary health care services.

---

9. Is there a national essential drug list?

Yes

*Comments:*

---

*If no, skip to question 15.*

---

10. What categories of products does the list include? (check all that apply)

contraceptives

STI

HIV/AIDS

TB

malaria

vaccines

vitamin supplements  injection safety supplies (including safety boxes and needles and syringes)

---

11. List all contraceptives that are available in the country, and specify which contraceptives are on the essential drug list.

DP, Noristat, Microlut, female condoms, IUDs, male condoms, Jadelle, postinor 2, ovalcon F = all on EDL

---

12. How many products, including contraceptives, does the list contain? (Provide a copy of the list.)

Essential Drug List (EDL) to be provided – Standard Treatment Guidelines, Essential Medicines List and Essential Laboratory Supplies List for Zambia 2004, p259-287.

---

13. What criteria is used to select a product for the list?

- Efficacy
  - Cost
  - Convenience
  - Safety
  - Acceptability
  - Storage and distribution cost
- 

14. To which levels of the system is the national essential drugs list officially distributed?

Central

Provincial

District

Service delivery point

---

### SECTION III: Product Selection

15. Is the list used for product selection and ordering commodities? If yes, explain how it is used.  
Yes, when determining introduction of the new product in the method mix.

16. Other comments on product selection:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"><li>• Existence of NDP</li><li>• Existence of EDL</li></ul>	<ul style="list-style-type: none"><li>• Lack of guidelines to switching to other brands.</li></ul>

### RECOMMENDATIONS

- Develop guidelines for switching to other brands – December '08

## SECTION IV: Forecasting

1. Describe the forecasting process
    - a. Who initiates it? MOH RH Unit
  
    - b. When does it take place? Annually with reviews conducted as need arise
  
    - c. How long does the process take? Using issues from country commodity manager (SCMgr) and the process takes three days. Demographic projections take 1-2 weeks.
- 

2. Are forecasts developed using:
    - a. dispensed-to-user data?  
 No      *Comments:*      Consumption data captured at facility level does not reach central level for decision making.
  
    - b. distribution/issues data?  
 Yes      *Comments:*      issues data from ccm and pipeline.
  
    - c. stock on hand at all levels?  
 No      *Comments:*      SOH from other levels other than the central level is not available.
- 

3. Are forecasts developed using the following:
    - a. demographic data or disease prevalence/morbidity?  
 Yes (**demographic data**)      *Comments:*      Just started in November 2007.
  
    - b. service statistics?  
 No      *Comments:*      Again, no, but there are protocol guidelines for supplying clients (e.g., number of pills for new and continued clients).
- 

4. Are forecasts validated by comparing previous estimated consumption with actual consumption?  
 No      *Comments:*
- 

5. How close have most forecasts been to actual consumption?  
 less than 0–10%     between 10–25%      Not sure since consumption data is unknown.  
 between 25–50%     more than 50% discrepancy
- 

6.
    - a. How many products had serious forecasts discrepancies in the past 2 years (+/- 25%)?
  
    - b. Which ones? Consumption data is not available so there is no actual to compare the forecast to.
  
    - c. Which products had the smallest forecast discrepancies?
-

## SECTION IV: Forecasting

7. What other factors are considered in the preparation of forecasts (e.g., consolidating decentralized forecasts or quantifications, seasonal and provincial variations, standard treatment guidelines, national essential drug list, stockout periods, etc.)?

Country Commodity Manager (CCM software developed by UNFPA) – stock out periods, expiry, stock on hand, all using issues data (average monthly issues) – Only at central level at MSL

Demographic projections – population, CPR, method mix, women of reproductive age

---

8. Do forecasts take into account programmatic plans (e.g., expansion of service outlets, training, IEC or behavior change campaigns, other organization's activities, etc.)? Describe.

Yes, e.g. IUD and Jadelle training and demand creation activities. After demographic projections the trainingw were adjusted. Now the challenge is that the scale-up plan is not clearly defined.

---

9. a. Is technical assistance provided to develop correct forecasts?

Yes

- b. If yes, by whom?

UNFPA and DELIVER

---

10. What is the role of provincial or lower levels in the forecasting process?

None at the moment

---

11. Are forecasts updated at least annually?

Yes

*Comments:* Current plan is to review them quarterly

---

12. Are forecasts prepared on a schedule coinciding with local budgeting and procurement cycles?

No

*Comments:*

---

13. Are long-term (e.g., 3 or more years) forecasts prepared?

No

*Comments:* usually 1-2 years

---

## SECTION IV: Forecasting

14. Are forecasts costed out and incorporated into budget planning by the MOH and/or donors? Explain.

The process described below started late November 2007. Before that the MOH conducted forecasts using CCM, a UNFPA software in collaboration with RHCS. Now the MOH works in collaboration with stakeholders to conduct annual forecasts which is reviewed every quarter using PipeLine which identifies gaps (taking into consideration lead times, max/min levels, stock on hand, issues – consumption data is not currently available). The gaps are shared through the RHSC Committee and the MOH and stakeholders are tasked with identifying donors to ensure contraceptive security. Finally contraceptives are procured. MOH procures through the procurement unit and donors usually do their own procurement. Main donors currently are USAID, UNFPA and JICA (condoms through the essential drug kits donate by JICA – 7X144 in each kit = approx 3000 kits.year).

15. Other comments on forecasting:

Information is there but not being collected.

In 2008 procurement will collect consumption data. It is a priority of the MOH that consumption data is used to feed into the procurement process. Following that the MOH will conduct an exercise for data quality validation at the national level according to Acting Pharmacy Specialist.

STRENGTHS	WEAKNESSES
<p>Annual forecasts are planned</p> <p>Quarterly reviews planned</p> <p>Good donor coordination/collaboration and support with MOH presence</p> <p>Donor support to the MOH exists</p> <p>Software is available for forecasting</p>	<p>Consumption data is not used</p> <p>Stock on hand at lower levels is not available</p> <p>Consumption data captured at facility level is not channeled to the central level</p> <p>Quality of consumption data captured at facility level is doubtful – no regular supervision</p> <p>Lack of standardized protocol and application for issuing (amounts) to new and continuing clients</p> <p>Inadequate budget allocation for procuring contraceptives within the MOH</p>

## RECOMMENDATIONS

Strengthen the logistics system to capture consumption data and stock on hand for forecasting purposes.

Standardise protocol for issuing contraceptives to new and continuing clients.

## SECTION V: Obtaining Supplies/Procurement

1. Who is responsible for procurement planning, and ordering and scheduling of shipments (e.g., logistics unit, procurement unit) at appropriate levels?
  - MOH RH Unit in collaboration with UNFPA
  - MOH RH Unit in collaboration with USAID
  - MOH direct procurement
  - Districts from private sector

2. Describe the coordination between staff or unit(s) responsible for logistics activities and procurement staff.

The process described below started late November 2007. Before that the MOH conducted forecasts using CCM, a UNFPA software in collaboration with RHCS. Now the MOH works in collaboration with stakeholders to conduct annual forecasts which is reviewed every quarter using PipeLine which identifies gaps (taking into consideration lead times, max/min levels, stock on hand, issues – consumption data is not currently available). The gaps are shared through the RHSC Committee and the MOH and stakeholders are tasked with identifying donors to ensure contraceptive security. Finally contraceptives are procured. MOH procures through the procurement unit and donors usually do their own procurement. Main donors currently are USAID, UNFPA and JICA

3. Are short-term procurement plans based on forecasted needs?

No  
available funds

*Comments:*

Guided by shortfall and

4. Do these procurement plans take into account the following logistics system elements:

a. current inventory levels (stock on hand)?

Yes

*Comments:*

Central level SOH

b. consumption (dispensed to user or issues)?

No

*Comments:*

Central level issues only

c. losses and adjustments?

No

*Comments: system does not capture L&A*

d. required order lead times of suppliers/donors?

Yes

*Comments:*

In PipeLine

e. established stock levels, if relevant (i.e., maximum and minimum levels)?

Yes

*Comments:*

f. shipment and handling schedules?

Yes

*Comments:*

## SECTION V: Obtaining Supplies/Procurement

g. need for safety stock?

Yes

*Comments:* just started

---

5. Are procurement plans responsive to other factors related to product supply and demand (e.g., demographic trends, program changes or expansion, IEC campaigns, etc.)?

Yes. Planned shipments can be rescheduled to accommodate program changes or expansion.

---

6. Are procurements limited to:

a. pre-qualified suppliers?

Yes

*Comments:* UNFPA = Yes;

USAID = Yes; MOH = Yes

b. products on the national essential drugs list?

Yes

*Comments:* Regularly reviewed.

---

7. In general, are the correct amounts of all products procured and obtained at the appropriate time at the following levels:

a. Central?

No

*Comments:* not always erratic; sometime

*you get it.*

b. Provincial?

NA

*Comments:*

c. District?

No

*Comments:*

d. Service delivery point?

No

*Comments:*

Specify the products, if any, that do not arrive in a timely manner or in appropriate amounts and why.

- All transport problems from districts to the facilities
- Because of not requesting by facilities and stock outs at central level

---

8. a. What are the procedures and time frames for ordering products from suppliers and donors?

1. request is made from MOH to the donor, then the donor to the supplier at least 3–6 months
2. local and international (6 months)

b. Do these take into account trade, regulatory, and currency restrictions? How?

No restriction as long as the product is registered.

Yes, registration and import regulations.

## SECTION V: Obtaining Supplies/Procurement

9. What is done to monitor/manage the coordination of procurement plans among suppliers/donors?

Drug budget supply line unit coordinates procurement plans by engaging donors. For both GRZ and donor procured commodities.

---

10. a. Is pipeline status regularly monitored so that procurement decisions can be made and actions can be initiated in time to avoid stockouts?

Yes  
pipeline monitoring tool use.

*Comments:* done in collaboration with partners –

b. If yes, who does this and how?

Monitor monthly transaction at MSL and shipments; and updating pipeline database on a regular basis.

c. How effective has this monitoring been? Explain.

Just started but effective in that you are able to identify gaps and established how long supply will take and to track shipments. This has been going on since the forecast was done at the end of Nov. 2007.

---

11. Does the procurement unit or persons responsible for procurement:

a. write and issue tenders?

Yes

*Comments:*

b. evaluate bids?

Yes

*Comments:*

c. monitor supplier performance?

Yes

*Comments:*

---

12. Does the program have written procedures for ensuring that products meet defined standards of quality?

Yes: EDL and specifications.

---

13. What are the procedures for quality assurance, who is responsible, and how often are they done?

- PRA and MSL
- WHO prequalified supplies
- MSL QA, physical inspection

## SECTION V: Obtaining Supplies/Procurement

14. Is there a procedure for recording and reporting complaints about product quality to suppliers?

Yes – write to suppliers by MOH & MSL & Donor & PRA

15. What other actions are carried out to ensure product quality?

- Ensure commodities are stored according guideline
- Source from reliable suppliers
- Establishment of pharmacovigilance

16. Other comments on procurement:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"><li>• Good collaboration and coordination among stakeholders and MOH</li><li>• Procurement plan developed annually and reviewed frequently</li><li>• Increasing MOH budget allocation for contraceptive procurement</li></ul>	<ul style="list-style-type: none"><li>• System cannot guarantee availability of products</li><li>• Donor dependency</li><li>• Limited budget allocation</li><li>• Weak LMIS – ordering and reporting</li><li>• Human resources limited</li></ul>

### RECOMMENDATIONS

- Advocate for increased budget allocation for RH supplies (continuous process)
- Strengthen logistics management system by Dec.09

## SECTION VI: Inventory Control Procedures

1. Specify what type of inventory control system is used (e.g., push, pull, etc.) and describe the system. Draw a diagram showing the relationships between the various levels.

The system is pull but is hampered by availability at the central and district level. The closest thing to push is the condoms that are included in the essential medicine kits provided to health centers.

2. What products are considered by the program to be in full supply? Male condoms, Injectables, Depo Provera, Noristerat, Oral contraceptives. Implant Jadelle not in constant supply.

## SECTION VI: Inventory Control Procedures

3. 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. At the Central level?

Yes

*Comments:*

b. At the Provincial level?

No

*Comments: Their role has been phased out.*

*Orders go direct to MSL*

c. At the District level?

Yes

*Comments:*

d. At the service delivery point level?

Yes

*Comments:*

---

4. a. Are the inventory control guidelines for full supply products followed at all levels so stock levels generally fall between maximum and minimum?

Yes , Unless something happens at the central level

---

5. a. Are stock levels (maximum and minimum) for full supply products reviewed periodically?

Yes

*Comments*

b. Do reviews take into account changes in transport and information availability?

Yes

*Comments*

---

6. How are products that cannot be maintained in full supply allocated at the following levels:

a. Central?

b. Provincial?

c. District? Provide distribution schedule according to consumption level.

d. Service delivery points? Same as above.

---

7. Are there written provisions for the redistribution of over-stocked supplies?

No

*and stock control cards.*

*Comments: Redistribute using supply vouchers*

## SECTION VI: Inventory Control Procedures

8. How are stock imbalances handled by supervisors/managers at the following levels:

Stock imbalances are not calculated or monitored.

b. District? Reorder from central level or purchase in the event of stockout at the central level.

c. Service delivery points? Same as above.

---

9. Does the program have a policy of storing and issuing stock according to first-to-expire, first-out (FEFO) inventory control procedures at all levels?

Yes

*Comments:*

---

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

Yes

*Comments:*

---

11. Are damaged/expired products physically separated from inventory and removed from stock records at the following levels:

a. Central?

Yes

*Comments:*

b. Provincial?

N/A

*Comments:*

c. District?  
*is to be expired.*

Yes. *Some products are sent to districts after expired or just before it*

d. Service delivery point?

Yes

*Comments:*

---

12. Note the approximate quantities of products that expired within the past two years.

Noristerat and Microlut but actual numbers are not available. The expired products are in a container outside MSL.

---

13. Does the program have a system for tracking product losses and other adjustments?

No, captured at the facility level on stock cards, but that information does not flow up the system

---

## SECTION VI: Inventory Control Procedures

14. a. Are there significant losses and adjustments?  
Yes
- b. If yes, how are they investigated?  
Check order forms, shipment vouchers and follow ups, store receipt vouchers.
- c. Are appropriate actions taken to prevent recurrence?  
Yes . Verified by another person and approved by another person.

---

15. How does each level of the system calculate resupply quantities?

a. Central? *Comments:*

b. Province? *Comments:*

c. District?

Consumption rate. Maximum and minimum order levels.

d. Service delivery points? Same as above.

---

16. Have stockouts occurred for any product in the last 12 months at the following levels:

a. Central?  
Yes. Jadelle and Microlut *Comments:*

b. Provincial?  
 Yes  No *Comments:*

c. District?  
Yes. Jadelle and Microlut *Comments:*

d. Service delivery points?  
Yes. Jadelle and Microlut *Comments:*

---

*If no to 16 a–d, skip to question 19.*

---

## SECTION VI: Inventory Control Procedures

17. a. Which products stockout most frequently?

Female condoms. Because this product is not common and popular.

b. How long do the stockouts normally last?

c. What causes these stockouts?

Users tend to "shun" it.

d. At which levels or what parts of the country do most stockouts occur?

Service delivery points. Clinics

---

18. How did the stockouts affect program services and performance (specify which products and levels)?

Clients give up. The centre staffs get frustrated because they are unable to provide services adequately. Programme goals are not achieved.

---

19. Are there established procedures for placing emergency orders?

No

---

20. a. How often are emergency orders placed by the following levels (include product):

i. Central?

ii. Provincial?

iii. District? Once in a while.

iv. Service delivery points?

b. In general, how successfully are emergency orders filled?

They are successful.

---

Other comments on inventory control:

Properly witten guidelines that are user friendly.

STRENGTHS	WEAKNESSES
<p>Provides adequate information on how popular the method is to avoid commodity expiration and unnecessary expense.</p> <p>Provide adequate information about availability of the product to avoid unnecessary stockouts.</p> <p>Wastage is minimized with the use of FEFO.</p>	<p>Not all staff are trained in the inventory system and therefore are using old or improvised systems.</p> <p>Stockout at central level are affecting all health facilities.</p> <p>Push system affects inventory control and places financial burden of facilities to disposed commodities.</p>

**RECOMMENDATIONS**

Capacity building at all levels of the system by the end of first quarter.

Supply of commodities should be done as demanded by the facility (pull system).

## SECTION VII: Warehousing and Storage

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  
manuals.

*Comments:* Need to have posters not only

2. Are there written guidelines for disposal of sharps, biohazardous material, and other medical waste?

Yes  
distributed.

*Comments:* Guidelines available but not widely

3. Does the program conduct at least one physical inventory of all products every year at storage facilities at the following levels:

- a. Central?

Yes

*Comments:* 3 times a year.

- b. Provincial?

No

*Comments:* Mainly a transit point.

- c. District?

Yes

*Comments:* Monthly at the end of the month.

- d. Service delivery point?

Yes

*Comments:* Monthly at the end of the month.

4. Are there cold chain requirements in this supply chain?

No.

*Comments:* Store at room temperature.

*If no, skip to question 7.*

5. Are cold chain storage resources (e.g., refrigerator, paraffin/kerosene, and temperature chart) available at all levels of the system, where appropriate?

Yes  No  NA

*Comments:*

6. How is the cold chain monitored to ensure that products are consistently maintained at appropriate temperatures? (Check all that apply.)

written guidelines

supervision

temperature log sheets

other \_\_\_\_\_

## SECTION VII: Warehousing and Storage

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

- |                            |     |   |
|----------------------------|-----|---|
| a. Central?                | Yes | <i>Comments:</i>                            |
| b. Provincial?             | NA  | <i>Comments:</i> Just a transit point.      |
| c. District?               | No  | <i>Comments:</i> Inadequate infrastructure. |
| d. Service delivery point? | No  | <i>Comments:</i> Inadequate infrastructure. |

---

8. Can the existing storage capacity handle all the quantities needed to ensure that no stockouts occur at the following levels?

- |                            |    |   |
|----------------------------|----|---|
| a. Central?                | NA | <i>Comments:</i>                            |
| b. Provincial?             | NA | <i>Comments:</i> Transit point.             |
| c. District?               | No | <i>Comments:</i> Inadequate infrastructure. |
| d. Service delivery point? | No | <i>Comments:</i> Inadequate infrastructure. |

---

*If yes to all, skip to question 10.*

---

9. How does the program cope with inadequate storage space at the following levels:

- a. Central? NA
- b. Provincial? NA. Transit point.
- c. District? They rarely have maximum stock levels (mostly minimum levels.)
- d. Service delivery point? Have minimum levels.

---

10. Does the program have plans for meeting storage requirements for at least the next five years?

- Yes *Comments: Plans are available but resources are inadequate to execute the plans and it is not a priority.*

---

11. Describe the program's plans for accommodating growth (e.g., infrastructure, distribution, etc.).

Infrastructure:

PCI: Assisting Ministry of Defence to renovate and extend their storage facilities.

MOH: Has plans in place for building and extending infrastructure and has already budgeted for it.

---

## SECTION VII: Warehousing and Storage

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

-Air conditioning for the warehouse to be improved

-Cleanliness- Inadequate cleaning materials and inadequate personnel.

-Organization- Due to inadequate space.

13. a. Is there a procedure for recording complaints about product quality at all levels?

No  
aware of.

*Comments: No written procedure that the public is*

14. Are visual quality assurance inspections of products conducted at the storage facility at the following levels:

Level	YES	NO	How Often?	Comments
Central?	√		Quarterly	MOH and stakeholders
Provincial?		√		No warehouse at this level
District?	√		Quarterly	<b>Provincial (PHO)</b>
Service delivery point?	√		Quarterly	DHMT /PHO

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

Yes

*Comments: Written guidelines available.*

*If no, skip to question 17.*

16. Describe the written procedures/guidelines for destroying damaged and expired products.

-The items to be destroyed are listed down and list is sent to the next high level by the pharmacy personnel.

- People from high levels come to witness the destruction in the presence of police, ECZ, and the council.

- It is done monthly.

## SECTION VII: Warehousing and Storage

17. In practice, are damaged and expired products destroyed according to the program's disposal guidelines at the following levels:

a. Central? Yes *Comments:*

b. Provincial? NA *Comments:*

c. District? Yes *Comments:*

d. Service delivery point? Yes *Comments:* The guidelines are not always followed, but most SDPs do send expired product back to the district

18. 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.

- Noristerat, injectable contraceptives got expired in the health centres of Mkushi district.

19. Other comments on warehousing and storage:

- Medical Supply Ltd, has enough storage facilities while at the health centres and districts, the storage spaces are not enough.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>-Existence of guidelines on storage and handling of products including disposal of sharps and biohazards wastes.</li> <li>- Adequate warehousing at the MSL.</li> </ul>	<ul style="list-style-type: none"> <li>- Inadequate storage space at district and health facilities</li> <li>- Guidelines are not widely distributed.</li> <li>-Maintain minimum due to lack of space risking stockouts</li> </ul>

## RECOMMENDATIONS

- MOH should ensure that there is adequate warehousing and storage space at all levels by the year 2010.
- MOH should train manpower in logistics management system (LMS) at all levels of health care by the year 2010.
- MOH should allocate adequate funds to DHMTs and health facilities for procurement and maintenance of vehicles every year

## SECTION VIII: Transport and Distribution

1. Does the program's budget have a line item for:
- a. vehicles?  
Yes *Comments: MOH procures and distribute to health facilities.*
  - b. fuel?  
Yes *Comments: At all levels.*
  - c. spare vehicle parts?  
Yes *Comments: At all levels.*
  - d. vehicle maintenance and repair?  
Yes *Comments: At all levels.*
  - e. per diem?  
Yes *Comments: At all levels.*
  - f. salaries for drivers?  
Yes *Comments: From the central levels (MOH).*

2. a. Are any of the above items supported by external funds?  
Yes.
- b. If yes, how much? By whom?
- Multiple donors – through basket funding so actual donor is not known (list of donors can be obtained from MOH Donor Coordinator)
  - Not sure about how much.
- c. If yes, are there plans to phase out or end this support?
- Yes. Every year the country is trying to reduce the amount of external support. But this may not be phased out in near future.

- 
3. Do written procedures specify what type of distribution system should be used to distribute products between each level?
- Yes *Comments: MOH has come up with distribution system together with JSI.*
-

## SECTION VIII: Transport and Distribution

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

- Medical Supply Ltd. (MSL) delivers to DHMTs and second level hospitals on monthly basis and the DHMTs sometimes deliver to health centres. Sometimes the health centres collect from DHMT according to the MSL's schedule.

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

Yes

*Comments:* For MSL to DHMTs.

6. Which essential health products are distributed with contraceptives (e.g., essential drugs, TB drugs, STI and HIV test kits and drugs, laboratory supplies, etc.)? Specify by level.

All of them.

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

No

*Comments:* Only for MSL.

- b. Are vehicles regularly available for supervision?

No

*Comments:* Inadequate funding.

- c. Are vehicles available for biohazardous material and sharps waste transport?

Yes

products.

*Comments:* Deliver at the same time with other

8. Are vehicles used effectively for routine and emergency deliveries at all levels? Explain (e.g., maximum use of vehicle capacity, coordination of distribution routes, etc.).

Yes. For MSL only.

## SECTION VIII: Transport and Distribution

9. a. Are all vehicles in running order?

-No. Some at the district and health centre levels are broken down.

b. How is vehicle maintenance handled at the different levels?

- MSL has a garage.

- DHMT has taken to some designated garages for maintenance.

---

10. Where are the vehicles kept (at what levels of the system)?

- Kept within the premises, e.g., DHMT vehicles at DHMT offices etc.

- MSL vehicles at MSL garages.

---

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

a. Central?	Yes	<i>Comments:</i>
b. Provincial?	NA	<i>Comments:</i>
c. District?	Yes	<i>Comments:</i> Not always.
d. Service delivery point?	No	<i>Comments:</i> Not always.

---

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

Yes. Sometimes DHMT secures transports from other departments.

b. If yes, how effective has it been?

Not effective.

---

13. Other comments on transport and distribution:

- MSL transport is adequate while at the districts and health centres, it is inadequate.

---

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>- MSL has a distribution system.</li> <li>- MSL has adequate transport for distribution of products to districts.</li> </ul>	<ul style="list-style-type: none"> <li>- Inadequate transport at district and health facility level.</li> <li>- Non compliance to regulations regarding ordering of the products.</li> </ul>

### RECOMMENDATIONS

- MOH should allocate adequate funds to DHMTs and health facilities for procurement and maintenance of vehicles every year (on going process).
- MOH should build the capacity of DHMTs to deliver products to all health facilities by the year 2010.
- Products wait at district level for SDPs to collect.
- MOH should put measures to ensure that all health facilities place their orders according to the procedures by the end of the year 2008.

## SECTION IX: Organizational Support for Logistics System

1. How often do personnel at the following levels communicate?
  - a. Central-level logistics staff and next level (e.g., province, province, district) staff  
Monthly.
  - b. Provincial-level (or level below central) logistics staff with district level staff (or next level down) in their area  
Monthly. *Comments:*
  - c. District-level logistics staff with the SDP level  
Monthly. *Comments: Varies depending on distance.*

*If never to question 1 a–c, skip to question 3.*

2. Describe what is done during meetings with staff with logistics responsibilities.
  - Requests for essential data items.
  - Provide updates on availability of stocks in MSL, particularly if the product has been out of stock.

3. Is there a supervision system that covers logistics activities?
 

No *Comments: To an extent, the Performance Assessment (PA) system covers logistics but not adequately.*

4. How often is supervision conducted at the service delivery points?
 

Quarterly *Comments:*

5. Is there a process in place for improving any gaps in the knowledge and skills of logistics personnel at the following levels?
  - a. Central? No *Comments:*
  - b. Provincial? No *Comments:*
  - c. District? No *Comments:*
  - d. Service delivery point? No *Comments:*

6. Are there written procedures and guidelines (e.g., manuals, job aids, standards) to help staff carry out their logistics responsibilities?
 

Yes *Comments: Need*  
updating and revision.

## SECTION IX: Organizational Support for Logistics System

*If no, skip to question 8.*

7. List all procedures/guidelines that cover logistics responsibilities.

- DILSAT
- Drug store management
- LMS manual

8. Are the procedures and guidelines distributed to staff at the following levels:

- |                            |                             |                  |
|----------------------------|-----------------------------|------------------|
| a. Central?                | Yes                         | <i>Comments:</i> |
| b. Provincial?             | Yes                         | <i>Comments:</i> |
| c. District?               | Yes                         | <i>Comments:</i> |
| d. Service delivery point? | <input type="checkbox"/> No | <i>Comments:</i> |

9. Do staff who manage commodities have a written job description that includes logistics responsibilities at the following levels?

- |                            |     |                  |
|----------------------------|-----|------------------|
| a. Central?                | Yes | <i>Comments:</i> |
| b. Provincial?             | No  | <i>Comments:</i> |
| c. District?               | No  | <i>Comments:</i> |
| d. Service delivery point? | No  | <i>Comments:</i> |

10. Do logistics staff have the tools and resources they need to do their jobs at all levels (e.g., job aids, forms, carbon paper, calculators, shelving, vehicles, funds for transport, etc.)? If not, which tools or resources are missing at the following levels:

- |                            |     |   |
|----------------------------|-----|---|
| a. Central?                | Yes | <i>Comments:</i>  |
| b. Provincial?             | No  | <i>Comments: Transport is a challenge.</i>                |
| c. District?               | No  | <i>Comments: Transport and other remains a challenges</i> |
| d. Service delivery point? | No  | <i>Comments: Stationery is a challenge.</i>               |

11. a. Is external assistance used to complete management and supervision activities?

Yes *Comments:*

b. If yes, describe the extent of the external assistance.

- Funding for supervision activities.

## SECTION IX: Organizational Support for Logistics System

12. Describe supervisory relationships by job position/title and by level. Indicate if any position receives supervision from more than one person or unit. Provide a chart if possible.

Pharmacy specialist → Provincial pharmacist → district pharmacist/ pharmacy incharge  
 Pharmacy in charge at facility level

13. Are supervisory responsibilities described in written job descriptions?

Yes

*Comments:* At PHO and district levels

14. Are guidelines available for how the supervisor is to conduct the supervisory visit (e.g., introductions, positive style of interaction, follow-up)?

No  
assessment)

*Comments:* Except for PA (performance

15. Are tools available that describe what to cover when conducting a supervisory visit (e.g., guidelines, a checklist)?

No

*Comments:* Except the DILSAT and PA

*If no to 13–15, skip to question 18.*

16. Are these guidelines and tools used by supervisors?

PA tools are being used. However, the tools do not adequately cover the logistics system.

17. Are supervisory visits conducted for staff at the following levels:

- |                            |     |  |
|----------------------------|-----|--|
| a. Central?                | No  | <i>Comments:</i> Inconsistent and sporadic |
| b. Provincial?             | Yes | <i>Comments:</i> Inconsistent and sporadic |
| c. District?               | Yes | <i>Comments:</i> Inconsistent and sporadic |
| d. Service delivery point? | Yes | <i>Comments:</i> Inconsistent and sporadic |

*If no to 17 a–d, skip to question 21.*

## SECTION IX: Organizational Support for Logistics System

18. What types of activities take place during the visits:
- a. review procedures for forecasting needs?  
No *Comments:*
  - b. review procedures for ordering products?  
No *Comments:*
  - c. observe product storage? May be *Comments:*
  - d. conduct physical inventory? May be *Comments:*
  - e. review of logistics records and reports? May be *Comments:*
  - f. discuss budgeting for logistics activities?  
No *Comments:*
  - g. review changes made since last supervisory visit?  
Yes *Comments:*
  - h. on-the-job training to improve job performance?  
Sometimes *Comments:*
  - i. discuss what is working and what is not working?  
Yes *Comments:*
  - j. discuss what help is needed (staff, equipment, forms, etc.)?  
Yes *Comments:*

19. Is there a documented schedule for supervision?

No  
supervision

*Comments:* PA Biannual but PA is not

*If no, skip to question 21.*

20. a. Are supervisory visits conducted according to the established schedule? If not, why not?  
No. Challenges of fundings.
- b. How often do they take place?  
Quarterly
- c. Are there any constraints to conducting supervisory visits?
- Funding
  - No standard documents
  - Staffing

## SECTION IX: Organizational Support for Logistics System

21. If a staff member's performance in logistics is not satisfactory, is the person provided with:

- |  |    |                  |
|--|----|------------------|
| a. in-service training?                    | No | <i>Comments:</i> |
| b. on-the-job training?                    | No | <i>Comments:</i> |
| c. written instructions on how to improve? | No | <i>Comments:</i> |
| d. a coach or mentor?                      | No | <i>Comments:</i> |
| e. other? (describe) _____                 |    |                  |

---

22. Does the program conduct periodic staff development activities (e.g., classroom training, coaching, on-the-job training, etc.)?

- Yes *Comments: Not for logistics*

---

23. Has training been given to current staff at all appropriate levels in the following areas:

- |   |                  |
|---|------------------|
| a. completion and submission of LMIS reports?<br>No                                 | <i>Comments:</i> |
| b. proper storage of health products?<br>No   | <i>Comments:</i> |
| c. maintaining proper stock levels?<br>No   | <i>Comments:</i> |
| d. determining order quantities?<br>No  | <i>Comments:</i> |
| e. determining issue quantities?<br>No  | <i>Comments:</i> |
| f. estimating annual needs?<br>No   | <i>Comments:</i> |
| g. reviewing reports and records?<br><input type="checkbox"/> No                    | <i>Comments:</i> |
| h. other? (list): _____<br><input type="checkbox"/> Yes <input type="checkbox"/> No | <i>Comments:</i> |

---

24. Other comments on organizational support for the logistics system:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>- Open communication between central levels and provinces</li> <li>- Quarterly meetings to review LMS in provinces</li> <li>- Tools that cover logistics responsibilities are available</li> </ul>	<ul style="list-style-type: none"> <li>- No established supervisory tool</li> <li>- No supervisory system that covers logistics activities</li> <li>- Transport between districts and facilities is inadequate</li> </ul>

### RECOMMENDATIONS

- Update the LMS manuals, drug store management manuals by second quarter.
- Develop the LMS supervisory tools by the end of the third quarter.

### SECTION X: Product Use

1. Do written standard treatment guidelines exist for conditions that are treated with commodities in the supply chain being assessed?

Yes

*Comments:*

*If no, skip to question 4.*

2. Specify the commodities in this supply chain that are required to comply with the standard treatment guidelines. Attach the list.

As per approved commodity by MOH

3. Are guidelines distributed to all the service delivery points?

Yes

*Comments:*

4. Are there written procedures for monitoring and supervising prescribing practices (e.g., monitoring number of products/drugs prescribed/dispensed per prescription)?

Yes

*Comments:* Provider's Manual

*If no, skip to question 6.*

5. Are the procedures distributed to service providers at all levels?

## SECTION X: Product Use

Yes

*Comments:*

6. Do written universal safety precaution guidelines exist (e.g., disposing of used needles, washing hands before and after contact with patient)?

Yes

*Comments:*

*If no, skip to question 8.*

7. Are precaution guidelines distributed to service providers at all levels?

Yes

*Comments:*

8. a. What mechanisms and resources are in place to ensure the implementation of standard treatment guidelines and universal safety precautions? Supportive supervision, performance assessment, if not undertaken penalties are meted.

b. To what extent are they followed? Quarterly

c. If not followed, what are the barriers to putting them into practice?

9. Are commodities provided only to facilities that have staff trained and equipped to use them (e.g., TB drugs only to DOT-trained facilities, IUDs only to sites with trained providers)?

Yes

10. a. Are prescribing practices monitored and compared to standard treatment guidelines?

No

*Comments:*

b. If so, how often? Quarterly

c. By whom? District Supervisor

11. What contraceptive methods does each provider type offer (public, NGOs, social marketing, commercial, other government)?

Public facilities have all contraceptives; NGOs give some, social marketing and others only orals and barrier methods

12. Within the past five years has there been a change in the percentage of market share of methods provided by each supplier?

No

*conducted*

*Comments: Market share study yet to be*

*If no, skip to question 14.*

## SECTION X: Product Use

13. Indicate the percentage of market share of methods provided by each supplier in year 1 (5 years ago) and year 5 (currently).

Source of information: \_\_\_\_\_ *Data not available*

Commodity	Government		NGO		Commercial	
	Year 1	Year 5	Year 1	Year 5	Year 1	Year 5
Microgynon						
Male Condom						
Female Condom						
Oralcon-F						
Microlut						
Depo Provera						
Noristerat						
IUD						
Jadelle						

14. Have implications of the contraceptive method mix been assessed by decision makers?

Yes

a. Explain/provide examples. Which group of people are supposed to get what method and availability

15. a. Are there behavior change communication campaigns underway (or undertaken in the previous 2–3 years) that encourage the use of modern contraceptive methods, especially long-term and/or permanent methods?

No

*Comments:*

b. If yes, describe campaigns and specify who is responsible for these activities.

16. Do the following barriers limit client access to services that use products from the supply chain being studied today?

## SECTION X: Product Use

- |                                      |  |   |
|--------------------------------------|--|---|
| a. programmatic?                     | <input type="checkbox"/> Yes                                       | <i>Comments: Programme design e.g. integration</i>      |
| b. operational?<br><i>the public</i> | <input type="checkbox"/> Yes                                       | <i>Comments: Limited staff days with convenience to</i> |
| c. cultural?                         | <input type="checkbox"/> Yes                                       | <i>Comments: Traditions/ beliefs</i>                    |
| d. religious?                        | <input type="checkbox"/> Yes                                       | <i>Comments: Religious beliefs</i>                      |
| e. price?                            | <input type="checkbox"/> Yes                                       | <i>Comments: Poverty levels</i>                         |
| f. other?                            | <input type="checkbox"/> Yes <input type="checkbox"/> No (specify) | <i>Comments:</i>  |

17. Is access to the programs services negatively affected by perceptions of quality at the following provider sites?

- |   |  |  |
|---|--|--|
| a. public?                              | <input type="checkbox"/> No                              | <i>Comments:</i>   |
| b. NGO?<br><i>provide free services</i> | <input type="checkbox"/> Yes                             | <i>Comments: Perception is that NGOs are there to</i>  |
| c. social marketing?                    | <input type="checkbox"/> Yes <input type="checkbox"/> No | <i>Comments: People believe that products may not be genuine or may be sub-standard due to poor storage conditions</i> |
| d. other? (specify)                     | <input type="checkbox"/> Yes <input type="checkbox"/> No | <i>Comments:</i>   |

*If no, skip to question 19.*

18. What are the problems most commonly expressed?

As per above

19. Other comments on product use:

Consistency of product supply is donor dependent by method

Mistrust i.e Depo's current issues

Myths surrounding family planning - Cancer causing, Depo use causes sterlization, etc.

Attitudes of providers – Few providers qualified to counsel on long-term methods → decreasing protection

STRENGTHS	WEAKNESSES
Provision of quality services which is strengthened by the availability of the "FP Guidelines" and Provider's Manual".  Readily available methods and information about commonly used contraceptives (method mix) enables clients to make informed decisions	"Contraceptive Method Mix" that is currently available does not adequately cover all methods.  No campaign materials on permanent methods has created a gap in the provision of FP as a whole (less people are protected because long acting methods have been neglected sometimes)  Inadequate skilled staff to provide services

## SECTION X: Product Use

(because trained staff leave Zambia)

## RECOMMENDATIONS

Timely review of current method mix by stakeholders in liaison with service providers  
Timely development of IEC materials on sterilisation and other methods available  
Documentaries to be done on TV, radio and in print media  
Capacity building of available manpower

## SECTION XI: Finance/Donor Coordination/RHCS Planning

1. Does the program's budget include line items for (specify the program):

a. products?

Yes

*Comments:*

b. warehousing/storage?

No

*Comments:*

c. logistics management information system?

No

*Comments:*

d. transportation?

Yes

*Comments:*

e. logistics staff development?

No

*Comments:*

f. salaries for logistics staff?

No

*Comments:*

g. waste management?

No

*Comments:*

2. What is the program's annual budget and expenditure for: Data not available

## SECTION XI: Finance/Donor Coordination/RHCS Planning

Drug budget? \_\_\_\_\_ Reported year \_\_\_\_\_ Annual expenditure \_\_\_\_\_

Contraceptive budget? \_\_\_\_\_ Reported year \_\_\_\_\_ Annual expenditure \_\_\_\_\_

Logistic budget? \_\_\_\_\_ Reported year \_\_\_\_\_ Annual expenditure \_\_\_\_\_

3. a. Who finances the program's annual budget?

1. USAID, 2. UNFPA, 3. MOH and WHO did not purchase anything in 2007 or 2006 according to Pipeline

b. What percentage of the cost of products procured is locally financed?

Don't know

4. What process is used to develop the program's budget?

RH Unit develops activity based budget which is submitted to Directorate of Planning then submitted to Permanent Secretary's office and finally to MOF.

5. Considering the last available year's expenditure (capital and operating costs), is the budget sufficient? No

If not, why? There are not enough funds for procurement and no allocation for logistics staff salaries

6. Estimate the percentage of products bought from domestic versus international suppliers.

0%

7. Are clients charged for:

a. services?  No *Comments:*

b. commodities?  No *Comments:*

*If no to question 7 a and b, skip to instructions above question 11.*

8. Are revenues generated from the cost recovery system used for:

a. commodity costs?  Yes  No *Comments:*

b. logistics costs?  Yes  No *Comments:*

c. other costs?  Yes  No *Comments:*

## SECTION XI: Finance/Donor Coordination/RHCS Planning

9. What approximate percentage of costs is recovered (e.g., through user's fees)? If possible, separate by commodity versus logistics.

10. a. Where is the cost recovery money physically kept and managed?

b. What is it used for?

11. Are pricing policies among RH suppliers supportive, neutral, or unsupportive toward encouraging competition from private and social marketing providers?

Neutral

12. [CS] Is there a contraceptive (or other commodity) financing gap currently or in the short-term (1 to 3 years)?

Yes

*Comments:*

If yes, quantify amount annually.

USD 400,000 is the current donor support level, likely to go up in 2009/2010. Gap for 2008 is 413,576; 2009 is 1,027,026; 2010 is 2,247,917.

13. [CS] Is there a contraceptive (or other commodity) financing gap in the medium-term (3 to 5 years)?

Yes

*Comments:*

If yes, quantify amount annually.

Gaps only identified up to 2010

14. Estimate the annual amount spent on contraceptives provided by each of the following sources:

a. government direct expenditures (including World Bank credits)? MOH – Mika to follow-up

b. donors? – for 2007

USAID for MOH = 1,238,761 USD

USAID for SFH = 5,276,388 (2006-2009) USD

UNFPA for SFH = 1,237,161 USD

JICA = condoms in essential drug kits, but no dollar value available

c. NGOs? Don't know

d. households? Don't know

## SECTION XI: Finance/Donor Coordination/RHCS Planning

e. other sources (list) (e.g., social insurance program, private insurance, employer-based programs, etc.). - SFH

15. Is the country engaged in a Poverty Reduction Strategy Plan (PRSP)?

Yes

*Comments:*

*If no, skip to question 17.*

16. Is there a reference to CS as a precursor for attaining the Millennium Development Goals (MDG) targets in the PRSP?

Yes

*Comments:*

17. Has the country set up a sector wide approach (SWAp) for health, reproductive health, or family planning?

Yes

*Comments:*

18. [CS] Are contraceptive supplies addressed as an explicit government budget line item, either within or outside the SWAp?

Yes

*Comments: Included with other RH commodities*

19. Is there a favorable environment that encourages the private sector to supply contraceptives? Yes

20. Is there market segmentation of contraceptives? Yes

21. What is the percentage of the private market for contraceptives? Unknown

22. [CS] Is there a process for coordinating with donors for commodity supply?

Yes

*Comments: Through RHCS Committee and technical working group (family planning) and DSBL*

*If no, skip to question 27.*

23. Does this process occur at specified intervals?

Yes

*Comments: Quarterly*

24. Describe the process and specify intervals.

Annual forecasts are shared with the RHCS Committee and gaps are shared with donors

25. [CS] Does the program initiate the coordination with donors?

Yes

*Comments:*

## SECTION XI: Finance/Donor Coordination/RHCS Planning

26. Is there a mechanism or a unit that currently coordinates procurement and product shipment with donors?

RH Unit

27. Are any products procured through a basket funding mechanism?

Yes  
possible for future

*Comments: Currently no but in the past yes, and*

*If no, skip to 30.*

28. Specify which products are procured through basket funding.

In the past IUDs

29. Describe the process (e.g., timing, donors, etc).

The process described below started late November 2007. Before that the MOH conducted forecasts using CCM, a UNFPA software in collaboration with RHCS. Now the MOH works in collaboration with stakeholders to conduct annual forecasts which is reviewed every quarter using PipeLine which identifies gaps (taking into consideration lead times, max/min levels, stock on hand, issues – consumption data is not currently available). The gaps are shared through the RHSC Committee and the MOH and stakeholders are tasked with identifying donors to ensure contraceptive security. Finally contraceptives are procured. MOH procures through the procurement unit and donors usually do their own procurement. Main donors currently are USAID, UNFPA and JICA (condoms through the essential drug kits – 7X144 in each kit = approx 3000 kits/year)

30. What are the program's future plans for local financing? Are there plans by donors to phase out or reduce donations during the next five years? No

1. Advocacy for established explicit FP commodities inclusive in DSBL
2. In collaboration with PATH, build capacity for procurement using MOH funds
3. Inclusion of contraceptives in procurement plan

31. Has the MOH developed and convened a RH/CS coordination meeting?

Yes

*Comments:*

*If no, skip to question 33.*

32. Please identify the stakeholders who regularly take part in these RH/CS coordination meetings.  
UNFPA, USAID and contractors, WHO, DFID, CIDA, UNICEF, PPAZ, SFH, NAC and the MOH

## SECTION XI: Finance/Donor Coordination/RHCS Planning

33. [CS] Is there a RHCS/CS committee?

Yes

*Comments:*

*If yes, skip to question 35.*

34. Are there other coordination mechanisms in place? If yes, give examples.

Yes

*Comments:*

35. Does the committee involve all of the relevant stakeholders (donors, MOH, NGOs, commercial provider representatives, other sectors, etc.)?

Yes

*Comments: Except commercial sector*

36. [CS] Does the committee hold meetings at specified intervals (e.g., quarterly, annually)?

Yes

*Comments: Quarterly*

37. Does the committee make decisions and take action? If yes, give examples.

Yes

*of Clinical Care and Diagnostics*

*Comments: Makes recommendations to Director*

38. [CS] Is the committee effective in responding to external changes that affect CS?

Yes

*Comments:*

Describe a recent example.

*MOH identified challenge in LMS of FP and RHCS Committee was notified. Recommendations were made to partners to give TA and USAID has contracted DELIVER to offer TA to MOH*

39. [CS] Is there a local commodity security champion with decision-making authority?

Yes

*Comments: Director of Public Health*

40. [CS] Has the Ministry, with other stakeholders, developed a national RHCS/CS strategic plan?

No

*the National Health Strategic Plan*

*Comments: planned for 2008 and is mentioned in*

*If no, skip to question 45.*

41. Describe the plan.

42. [CS] Is the National RHCS/CS strategic plan fully financed/resourced?

No

*Comments:*

## SECTION XI: Finance/Donor Coordination/RHCS Planning

43. a. [CS] Is the National RHCS/CS strategic plan being implemented?

No

*Comments:*

b. How (e.g. nationally, provincially, locally)?

44. [CS] Does the plan include/commit governmental funds to purchase contraceptives?

No

*Comments:*

45. Other comments on finance/donor coordination/RHCS planning:

STRENGTHS	WEAKNESSES
Functioning RHCS committee Donor coordination is good Established RHC budget line Established DSBL secretariate	Insufficient resources to meet current procurement requirements Most of the financial resources available is donor money Inadequate prioritization of resources to meet needs Limited HR capacity and staff development for LMS at all levels

### RECOMMENDATIONS

Provide for inclusion of explicit FP commodities in DSBL

Circulation and implementation of national guidelines for donations to all levels of MOH and Cooperating Partners

Build capacity in forecasting, quantification and procurement DSBL and other MOH departments

Develop one MOH procurement plan with RHCS with donor buy-in



# APPENDIX 6. PARTICIPANT LIST FOR LIAT/LSAT DEBRIEFING MEETING

**Participant List for Debriefing Meeting of FP Baseline Assessment  
Thursday, 6 March 2008; Cresta Golfview Hotel, Lusaka**

<b>#</b>	<b>Name</b>	<b>Facility</b>	<b>District</b>	<b>Contact #</b>	<b>Email</b>
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