

ISSN 0799-6489



CONTRACEPTIVE LOGISTICS MANAGEMENT INFORMATION SYSTEM SURVEY REPORT 2019



National Family Planning Board

**Contraceptive Logistics Management Information System Survey
Report 2019**

National Family Planning Board

Copyright ©

National Family Planning Board, 2020

All Rights Reserved

National Family Planning Board

5 Sylvan Avenue

Kingston 5

Jamaica

Telephone: 876-968-1627

Websites: www.jnfpb.org | www.teen360jm.org

Facebook: <https://www.facebook.com/NFPBSHA/>

Twitter: [@NFPBJa](https://twitter.com/NFPBJa)

ISSN 0799-6489

Survey Leads/Coordinators

Names	Positions
Dr. Tazhmoye V. Crawford	Director of Monitoring, Evaluation and Research
Ms. Sacha-Marie Hill	Former Research Officer
Mr. Damion C. Grant	Monitoring and Evaluation Officer
Mr. Collin A. Dosunmu	Database Officer
Mr. Andre D. Black	Research Officer
Mr. Marvin Z. Joseph	Biostatistician

Table of Contents

Acronyms	I
Acknowledgement	II
Executive Summary	1
Background	5
Findings From Previous Clmis Surveys	8
Remedial Actions Taken From The Findings	9
Assessment Purpose And Objectives	11
Assessment Methodology	13
Sampling Framework	16
Sample	17
Data Collection	18
Quality Assurance	19
Limitations Of The Survey	20
National-Level Findings	22
Facility Information	22
Stock Status	25
Logistics System Performance	30
Logistics Management Information System	31
Reporting	38
Inventory Control	41
Ordering Procedures	43
Record Keeping	47
Supervision	49
Transportation	52

Storage Conditions	56
Conclusions.....	59
Important Noting Per Results.....	61
Recommendations.....	66
Fruition Garnered.....	69
References.....	70
Appendix A: LIAT.....	71

Table of Figures and Tables

Figure 1: The CLMIS in Jamaica.....	7
Figure 2: Percentage of Facilities Managing Various Contraceptives by Region	25
Figure 3: Availability of Contraceptive Methods on the Day of Visit by Region	26
Figure 4: Availability of Contraceptive Methods on the Day of Visit Disaggregated by Facility Type	27
Figure 5: Methods Experiencing Stock-outs in Last 6 months at All Facilities	29
Figure 6: Percentage of Healthcare Workers Trained to Complete Forms and Records by Region	33
Figure 7: Percentage of Facility Methods for Determining Resupply Quantities by Region	35
Figure 8: Percentage of Healthcare workers Trained to Determine Resupply Quantities by Region	37
Figure 9: Percentage of Facilities with Stock-book Available and Updated by Method.....	38
Figure 10: Percentage of Facilities Reported Sending Reports to Higher Level by Region.....	39
Figure 11: Percentage of Facilities with Complete and Accurate MCSRs by Region	41
Figure 12: Percentage of Facilities Placing an Emergency Order in Previous Three Months	43
Figure 13: Percentage of Facilities Reported Mediums Used to Order Contraceptives by Region.....	45
Figure 14: Percentage of Facilities Reported their Ordering Request Frequency	47
Figure 15: Percentage of Facilities with Completed and Accurate Monthly Contraceptive Logbook by Region	48
Figure 16: Percentage of facilities Reported Receiving Supervisory Visits	51

Figure 17: Percentage of Facilities Reported Mediums in which Contraceptives were collected by Region.....	54
Figure 18: Percentage of Facilities Reported the Method of Transportation Used by Region	56
Figure 19: Percentage of Facilities within Northeast Region Individual Storage Condition.....	57
Figure 20: Percentage of Facilities within Southern Region Individual Storage Condition.....	57
Figure 21: Percentage of Facilities within Southeast Region Individual Storage Condition.....	58
Figure 22: Percentage of Facilities within Western Region Individual Storage Condition.....	58

Table 1: Acceptable Storage Conditions for Contraceptive Commodities.....	14
Table 2: List of Sampled Clinics for the CLMIS 2019.....	17
Table 3: Average Number of Products Managed at Facilities.....	24
Table 4: Average Frequency and Number of Days of Stock-outs in the Last Six Months	30
Table 5: Chi-Square Test with Mediums Used to Collect Contraceptives by Region.....	53
Table 6: Chi-Square Test with Method of Transportation Used by Region.....	55

ACRONYMS

CLMIS	Contraceptive Logistics Management Information System
CLMS	Contraceptive Logistics Management System
CPR	Contraceptive Prevalence Rate
FP	Family Planning
IUCD	Intrauterine Contraceptive Device
LIAT	Logistics Indicator Assessment Tool
MCLB	Monthly Contraceptive Logbook
MCSR	Monthly Contraceptive Summary Report
MoH	Ministry of Health
NERHA	North-East Regional Health Authority
NFPB	National Family Planning Board
NISP	National Integrated Strategic Plan
OECD-DAC	Organisation for Economic Cooperation and Development – Development Assistance Committee
OCP	Oral Contraceptive Pill
RHA	Regional Health Authority
RHS	Reproductive Health Survey
SERHA	South-East Regional Health Authority
SRHA	Southern Regional Health Authority
USAID	United States Agency for International Development
WRHA	Western Regional Health Authority

ACKNOWLEDGEMENT

The National Family Planning acknowledged the hard work, commitment and efficiency displayed by the technical team of its Monitoring, Evaluation and Research Unit, under the leadership of the Director. Some key players of this survey were also other members of staff of the NFPB, and the Senior Public Health Nursing Supervisors and their representatives of the RHAs, who availed themselves for training in order to efficiently administer the survey instruments throughout over 70 health centres. Thanks also to all of the stakeholders for sharing valuable information, and their perspectives that went into informing the assessment

EXECUTIVE SUMMARY

The National Family Planning Board, as part of its legislative mandate to enable efficient and effective population planning and development, continues to strengthen the Contraceptive Logistics Management Information System (CLMIS). As a result, the organisation embarked upon CLMIS survey/assessment in 2013, 2015 and 2019.

The main objectives of the surveys were to: assess the accuracy of logistic data for contraceptive inventory management; and assess the functioning of CLMIS within the context of ordering procedures, transportation systems, supervision frequency and storage condition.

The findings of the 2019 CLMIS highlighted the fact that there has been significant improvement in the family planning programme since the last survey was conducted in 2015. These are indicated as follows:

- Stock-out (the absolute absence of contraceptive methods) on the day of visit, showed significant decline to five (5) percent (2019) from seventeen (17) percent (2015).
- The prevalence of stock-out over the six-months reporting period (August, 2018-January 2019) declined significantly to twenty (20) percent (2019) from eight-five (85) percent (2015).
- All the targeted health centers contained use of the contraceptive logbook and family planning register; however, a small percentage of facilities were using the logbook for contraceptive management.
- Forty-two percent (42%) of health facilities received supervisory visits within a month prior to the survey. These visits included the checking of FP commodities.
- General storage of contraceptive methods was assessed to be adequate, based on the spacing reality at the health facilities.

- The availability and maintenance of fire safety equipment was a challenge for most health centers. Some were not recently serviced, while others were without the equipment.

The findings also revealed that the majority of the facilities were not updating the monthly contraceptive logbooks. As a result, health facilities were encouraged to practice standardised record-keeping, which was considered imperative to maintaining an efficient logistics system for contraceptives, especially given the evidence that an effective Contraceptive Logistic Management Information System (CLMIS) was associated to lower rates for unplanned pregnancies and unmet need.

The overall assessment showed an improvement within the system, having reflected reductions per stock-out of contraceptive methods, and the improvement of record keeping.

On a point of realisation, more work was needed in the aforementioned areas, to ensure that the national family planning mandate of efficient and effective population planning and

development may be accomplished within the era of sustainable development. As such, special attention should be placed on providing logistic training (such as Contraceptive Forecasting Methodologies/Techniques) to the nurses and mid-wives who were responsible for contraceptive management. Attention should also be given to increasing the frequency of supervisory visits for family planning commodities and services. The results showed that a significant percentage of the facilities did not receive any supervisory visits for family planning. Visits were mostly geared towards other aspects of health, such as immunization.

BACKGROUND

Governed by the Family Planning Act of Parliament, 1970, the National Family Planning Board (NFPB), which is a statutory body under the Ministry of Health, has the national responsibility for preparing, conducting and promoting sustainable family planning services in Jamaica under the remit of family and population planning and development, which forms part of the sexual and reproductive health (SRH) regime.

It is imperative to note that SRH is one of the pertinent direct measures of a country's growth/progress, being central to population and socio-economic development. Specifically, investments in population development planning is likely to garner fruition regarding poverty reduction, improved health status, equality in gender differentials, advancement in education and service delivery - all important evidence-based markers of socio-economic development, hence the strengthening of the CLMIS.

In order to fulfil the family planning needs of the Jamaican population, the National Family Planning Board (NFPB) in collaboration with the Ministry of Health, had included in its National Integrated Strategic Plan (NISP) 2014-2019, specific strategic targets for Family Planning. These targets are to:

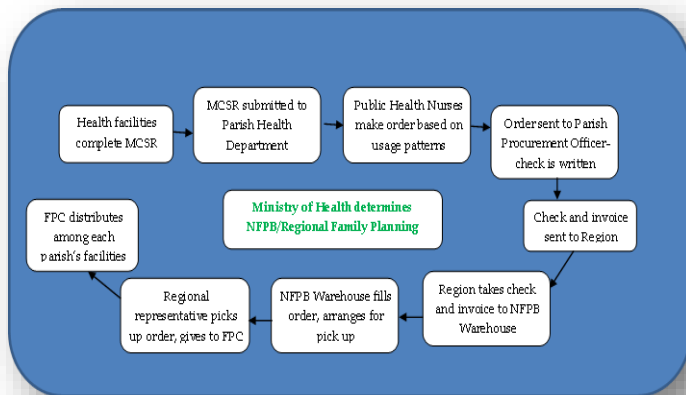
1. reduce the unmet need for contraceptive among all women 15-44 years from 7.2% to 5.7%;
2. increase contraceptive prevalence rate from 71.5% to 76%
3. reduce unplanned pregnancies by 10% from 47%;
4. increase dual method use by 20% from 37%.

To achieve these family planning targets, the NFPB must ensure the existence of sound Contraceptive Logistics Management System (CLMS) in Jamaica. The CLMS is a system that is used for the management and movement of contraceptive supplies and commodities in the healthcare system, hence, scrutiny in keeping with the United States Agency for International Development's (2011) purported six rights for the contraceptive logistic system; namely:

“A proficient CLMS must ensure that the RIGHT goods are in the RIGHT quantities in the RIGHT condition delivered to the RIGHT place at the RIGHT time for the RIGHT cost”.

Furthermore, an effective CLMS will likely reduce the unmet need for contraceptive methods and unplanned pregnancy in Jamaica, as more women would have access to contraceptive methods and family planning services which could directly and positively influence the number of unplanned pregnancies and CPR. In essence, there is a direct relationship among the supply of contraceptive commodities, its uptake and prevalence rate. The diagram below depicts the Contraceptive Logistic Management Information System in Jamaica.

Figure 1: The CLMIS in Jamaica



Findings from previous CLMIS Surveys

The National Family Planning Board (NFPB) conducted two important CLMIS surveys over the periods 2013 and 2015. This was with the overall aim of understanding the Contraceptive Logistic System in Jamaica, as well as to identify and remedy any significant gap(s) in the supply and management of contraceptive methods. Marked improvements were experienced over both reporting periods, in the sense that in 2015 the CLMIS assessment revealed that a total of seventeen (17) percent of facilities reported a stock-out of a contraceptive method on the day of the assessment; eighty-five (85) percent of facilities experienced stock-out of at least one contraceptive methods over a six-month period; and approximately twenty-eight (28) percent of the facilities did not have a stock management book. Supervisory visit had increased, whereby fifty-nine (59) percent of the facilities received a visit by their supervisors within one month prior to the assessment when compared with forty-two (42) percent in the 2013 assessment. Based on the findings presented in the 2015 assessment, it was noted that the safety of the

contraceptive methods was unfavourable, as all four (4) regions reported the absence of fire safety equipment and an overall non-standardised storage of boxes containing contraceptive commodities.

Remedial Actions taken from the findings

The findings from 2015 CLMIS assessment highlighted the need for training of the healthcare workers in contraceptive forecasting as one of the methods that would likely enable the strengthening of the CLMIS. A series of Contraceptive Forecasting trainings were conducted with approximately 50 family planning providers across the four health regions to assist facilities to accurately determine and procure the right amount of contraceptive methods that would serve their family planning clients' needs. This was with the aim to reduce, and ultimately eliminate stock-out throughout the system. Additionally, the NFPB had standardised, updated and distributed the Contraceptive Registers and the Monthly Contraceptive Logbooks; thus aimed at improving book-keeping practices and contraceptive management.

In order to ascertain whether the Contraceptive Forecasting training was successful in terms of enabling the respective health centers to estimate their contraceptive needs, an evaluation, using the Kirkpatrick Model, was conducted with a sample of the nurses who had participated the workshop one year prior to the evaluation. This was with a view to ascertain whether learning was absorbed in the way that the participants demonstrated a change in the way they do things appropriately, and whether such way(s) amounted to favourable results, in keeping with the established standards and guidelines. The result of the evaluation showed that they were satisfied with the content and delivery of the workshop. It also revealed that the participants' knowledge on the use of forecasting methodology, such as the simple average method, was effective in determining the needs of their health facilities; and that the healthcare providers were implementing the methodologies in their estimation of forecasting need.

ASSESSMENT PURPOSE AND OBJECTIVES

This assessment served as a follow-up to the 2013 and 2015 surveys. It provided a comprehensive picture of the current status of the Contraceptive Logistics Management System (CLMS) at all levels of the system. The purpose of the assessment was to gather current information on national stock status of all contraceptive commodities at the facility level, and to identify current commodity management practices throughout the system. The information was also used to provide recommendations to improve both commodity availability and the current state of the CLMS.

The specific objectives of the survey were to:

1. assess the accuracy of the logistics data for contraceptive inventory management;
2. assess the functioning of the CLMIS information, ordering procedures, transportation systems, supervision frequency and storage condition;
3. propose a feasible distribution system design;

4. strengthen the capacity of stakeholders in data collection and management;
5. strengthen the overall Contraceptive Management System.

ASSESSMENT METHODOLOGY

The Logistic Indicators Assessment Tool (LIAT) was the primary instrument used to collect both quantitative and qualitative data from the health centers. The LIAT was developed by the United States Agency for International Development (USAID), and may be used to monitor, not only the availability of contraceptive methods at health facilities, but the performance of logistics management system over a given period. The LIAT was considered feasible as the data collected may be used to assess the accuracy of logistics data for inventory management. It may also be used to assess the percentage of facilities that received the quantity of products ordered, maintain storage conditions (Table 1) and the percentage of facilities that experienced stock-out at the time of the visit.

In order to obtain comparable information, the 2019 survey assessed specific CLMIS activities such as ordering and distributing procedures, stock-status, maintaining storage conditions as well as supervision and general management. The instrument was revised

in 2015 for the tool to be applicable to the Jamaican Healthcare System.

The data were collected through direct observation, physical inventory checks and face-to-face interview with the person primarily responsible for managing contraceptives at each facility. Prior to this, a letter was sent to the Regional Technical Directors at each Regional Health Authority (RHA) to permit entrance into the facilities, and to enable cognizance of the process and intent. The NFPB and the Regional Nursing Supervisors for each facility had mutually confirmed the dates for data collection.

This CLMIS was conducted with consideration to the remedial and monitoring actions, strengthening of the system, plus the evaluation outcome of the forecasting methodology training.

Table 1: Acceptable Storage Conditions for Contraceptive Commodities

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, 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 usable products and removes 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 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; access is limited to authorized personnel.

 9. Products are stored at the appropriate temperature according to product temperature specifications.

 10. Roof is maintained in good condition to avoid sunlight and water penetration.

 11. Storeroom is maintained in good condition (clean, all trash removed, sturdy shelves, organized boxes).

 12. The current space and organization is sufficient for existing products and reasonable expansion (i.e., receipt of expected product deliveries for foreseeable future).

 13. Appropriate fire safety equipment is available and accessible.

 14. Products are stored separately from insecticides and chemicals.
-

Sampling Framework

There are three hundred and eight (308) functioning health facilities in Jamaica. A Proportional Stratified Random Sampling technique was applied to arrive at a representative sample of the health facilities. All the health facilities were organised according to their respective regions and facility type (1 – 7). South-East Regional Health Authority (SERHA) was assigned to stratum 1; North-East Regional Health Authority (NERHA) to stratum 2; Western Regional Health Authority (WRHA) to Stratum 3; and Southern Regional Health Authority (SRHA) to stratum 4. The health facilities were then randomly selected using random numbers between 0 and 1. The proportion of each facility type within each stratum was applied to the desired sample size (79) in order to compute the total number of facilities by type that was needed for the survey in each health region with a 10% margin of error (See Table 2). After meeting with the nursing supervisors for each region, the final sample of health centers was increased to 81 clinics.

Table 2: List of Sampled Clinics for the CLMIS 2019

Region	Parish	Number of Facilities	Type						
			1	2	3	4	5	6	7
South Eastern Regional Health Authority (SERHA)	Kingston & St. Andrew	8	2	1	2	0	2	0	1
	St. Thomas	7	2	2	2	0	0	1	0
	St. Catherine	6	2	1	2	1	0	0	0
	Sub-Total	21	6	4	6	1	2	1	1
North Eastern (NERHA)	Portland	7	3	1	1	1	0	1	0
	St. Ann	7	3	1	1	1	0	0	1
	St. Mary	5	3	1	1	0	0	0	0
	Sub-Total	19	9	3	3	2	0	1	1
Western (WRHA)	St. James	5	2	1	1	0	1	0	0
	Hanover	5	2	1	1	1	0	0	0
	Trelawny	6	2	1	1	1	0	1	0
	Westmoreland	4	2	1	1	0	0	0	0
	Sub-Total	20	8	4	4	2	1	1	0
Southern (SRHA)	Clarendon	7	2	2	2	0	0	1	0
	St. Elizabeth	6	2	2	2	0	0	0	0
	Manchester	6	1	2	2	1	0	0	0
	Sub-Total	19	5	6	6	1	0	1	0
	TOTAL	79							

Sample

Due to unforeseen challenges on the day of data collection, out of eighty-one (81) facilities that were targeted, only seventy-eight (78) LIAT interviews were completed, along with seventy-six (76) stock status observation and seventy-three (73) storage conditions forms. These challenges ranged from unavailability of site

personnel on the data collection days, to some sites not storing contraceptive methods at their location.

Data Collection

Data were collected using LIAT as posited earlier. Data collectors also used a supplemental paper-based tool to record any notes for the facilities. Prior to the start of the survey, twenty-five (25) data collectors participated in a one-day training course on the use of the assessment tool. The orientation included a discussion of data collection guidelines to (a) identify the types of information to be gathered; (b) standardise the data collection process; and (c) promote comparability of results. Participants received a comprehensive set of guidelines on implementing field work, tips for data collection, instructions for the LIAT forms, and additional job aids to use as reference guides while in the field. The training was also used as a means to facilitate any additional modifications to the tool that would improve data collection. The changes participants identified during the training were incorporated into the final version of the tool. Field work consisted of four teams (two to

three people per team), which comprised individuals from the National Family Planning Board. Data collection took place in February 2019, with each team spending three to four weeks in the field, depending on the number of assigned facilities.

Quality Assurance

Several methods were used to ensure quality adherence throughout the assessment process. The tool was reviewed prior to the training to ensure that questions were suitably adapted to within the Jamaican context, and modified again, following a pilot test and input from data collectors during the training. Data collectors also participated in a one-day training course prior to field work so that they were fully *au fait* with the questions and sources of data for each form. Field work was also organized in a systematic way to ensure quality and accuracy of data. Every member of the team was responsible for completing each form. Prior to leaving the facilities, the teammates compared each other's answers for accuracy and data quality. Following the review, one person (the assigned team lead) was responsible for verifying and

submitting all of the forms that were completed at that facility. Feedback and clarification of forms were provided to each of the teams on a regular and ongoing basis. In situations where inconsistencies were found in the data that could not be clarified immediately, the team leader was responsible for calling the facility to verify such information.

Limitations of the Survey

The limitations faced while completing the 2019 CLMIS were as follows:

1. Even though a comprehensive list of facilities offering FP services was used to derive the final sample, some selected satellite sites were incorrectly titled as type 1 facilities. As a result, these sites that had limited FP services were still included in the sample. Attempts were made to keep replacement sites within original parameters, but some variation may have resulted.
2. Challenges were encountered in accessing roads to some facilities, especially in rural areas, especially during the rainy season.

3. A large part of the LIAT interview relied on self-reporting and recall from the healthcare provider, which if inaccurate, may have possible influence on the results of the survey.

NATIONAL-LEVEL FINDINGS

The findings of the CLMIS were guided by the aforementioned objectives of the survey. They were organised under indicators measuring stock status and logistics system performance from all facilities that managed contraceptives throughout the four health regions (SERHA, NERHA, SRHA and WRHA). The findings were disaggregated by regions and facility types where applicable, in order to provide a comprehensive understanding of the various aspects of the CLMIS.

Facility Information

A total of seventy-eight (78) facilities were visited during this assessment: Twenty (20) were from SERHA, twenty (20) from NERHA, while seventeen (17) and twenty-one (21) were from SRHA and WRHA, respectively. All the facilities involved in the sample distributed Family Planning commodities. Among them was one (1) facility operated by a Non-Government Organization (NGO).

On the day of assessment, seventy-two (72) facilities (92.3%) had paved roads that led to the facilities, and all the facilities sampled (n=77; 99%) had both electricity and water. Additionally, sixty-four (64) out of the seventy-eight (78) facilities had an operational telephone.

Approximately two-thirds (n=52 out of 78) of the respondents had been working at their respective facilities for 4 years or less. Seventeen (n=17; 21.7%) respondents indicated that they were working at their facilities between 5 to 10 years, while approximately twelve percent (12%; n=9) of the respondents were working at the facilities surveyed for more than 10 years. The survey also revealed that the Midwives (46.2 percent or n=36) were the principal person responsible for managing contraceptives across the health facilities, followed by the Public Health Nurses (34.6%).

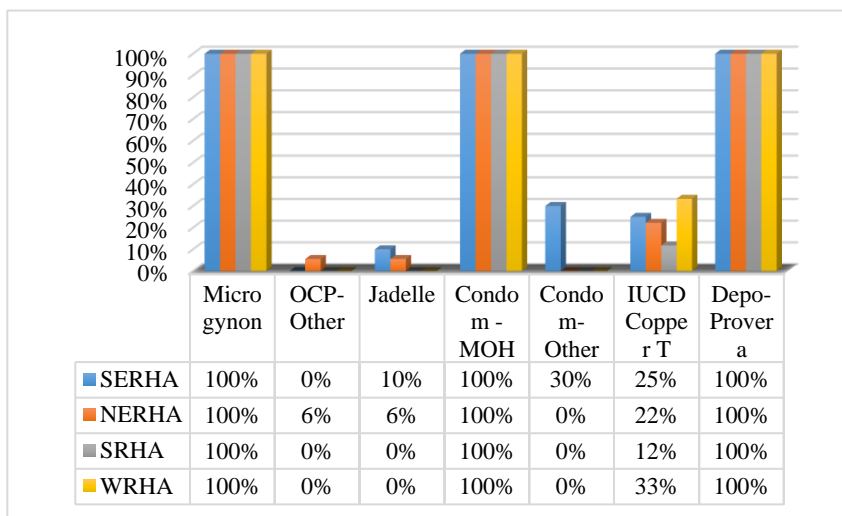
On average, most of health facilities managed at least three (3) of the five contraceptive products procured by the NFPB (Table 3).

Table 3: Average Number of Products Managed at Facilities

Region	Total number of Facilities Assessed	Average Number of Products Managed at Facilities
SERHA	20	3.7
NERHA	18	3.3
SRHA	17	3.1
WRHA	21	3.3

The three (3) main products managed were: Microgynon, Condoms and Depo Provera. Of the five (5) facilities that offered Jadelle, three (3) were from SERHA and two (2) from NERHA. However, one (1) facility from NERHA offered an alternative brand of Oral Contraceptive Pill (Minigynon); while 18 of the facilities offered IUCD (refer to Figure 2).

Figure 2: Percentage of Facilities Managing Various Contraceptives by Region



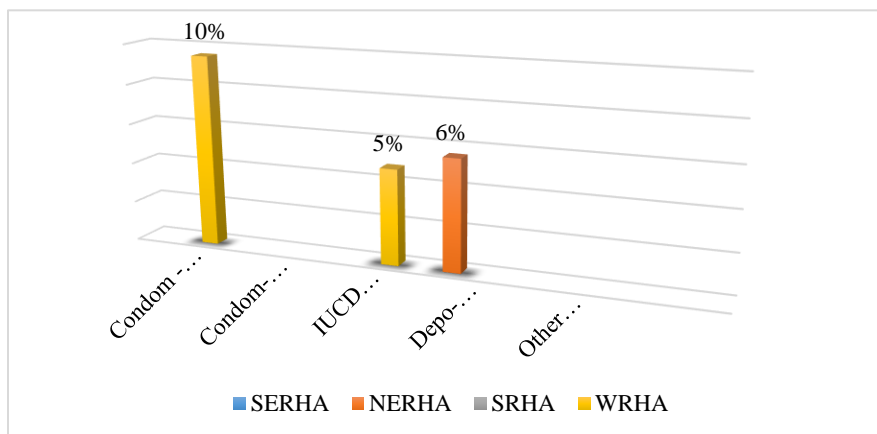
Stock Status

The availability of contraceptive methods on the day of visit was determined by a physical stock count for each method that were being managed at the health centers sampled. Of the eighty-one (81) health facilities that were targeted, only seventy-six (76) completed stock status forms were returned by the data collection team. The results also revealed that on the day of visit, five percent (5%; n=4) of the facilities experienced stock-out of at least one contraceptive method. This result reflects a seventy-one percent (71%) reduction

in stock-out on the day of the assessment in comparison to the 2015 survey which reported a seventeen percent (17%) stock-out of contraceptive method on the day of visit.

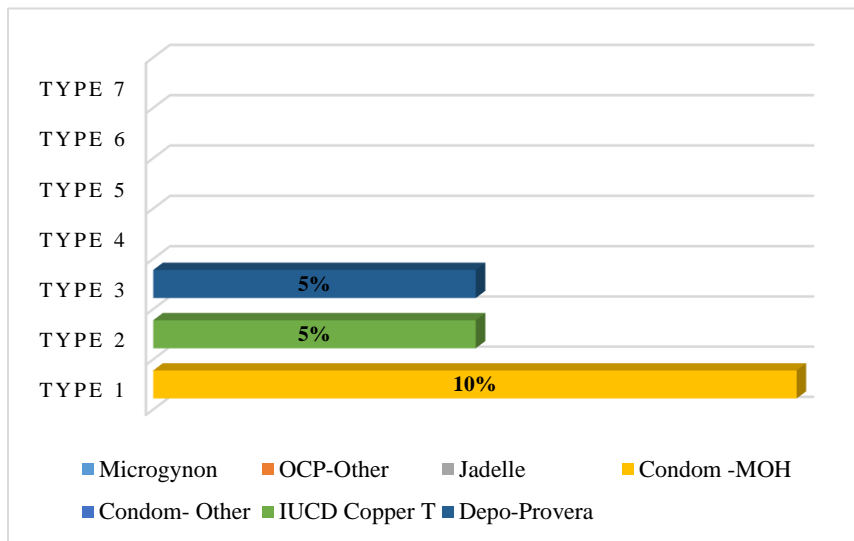
Figure 3 shows a graphical representation of the availability of each contraceptive method across the four health regions, whereby, one (1) facility (or 6% of the facilities) in NERHA was stocked out of Depo Provera on the day of the survey. Of the three (3) facilities in WRHA that experienced stock-out, two (2) were stocked out of Condoms while the other facility was stocked out on Copper T.

Figure 3: Availability of Contraceptive Methods on the Day of Visit by Region



Stock-out data was disaggregated by facility type in order to provide further insight into the availability of contraceptive methods at each facility. As shown in Figure 4, stock-out on the day of visit for Type 1 facilities was higher than other facilities. Specifically, ten percent (10%; n=2) of the Type 1 facilities that were visited reported a stock-out of Condoms, while five percent (5%; n=1) of the Type 2 facility reported stock-out of Copper T, while five percent (5%; n=1) of the Type 3 facility reported stock-out of Depo Provera on the day of visit.

Figure 4: Availability of Contraceptive Methods on the Day of Visit Disaggregated by Facility Type



The health facilities were prompted to report the prevalence of stock-outs over a six-month period prior to the survey (August to January 2019). The results revealed that approximately one (1) in five (5) or twenty percent (20%; n=15) of the facilities experienced stock-out of at least one contraceptive method over the review period. Figure 5 illustrates that thirteen percent (13%; n=10) of facilities managing condoms experienced a stock-out over a six-month period, while five percent (5%; n=4) of facilities were stocked out of Microgynon. In summary, the survey revealed a seventy-seven percent (77%) reduction in the prevalence of stock-out over the six-month period prior to the survey when compared to the survey conducted in 2015.

Figure 5: Methods Experiencing Stock-outs in Last 6 months at All Facilities

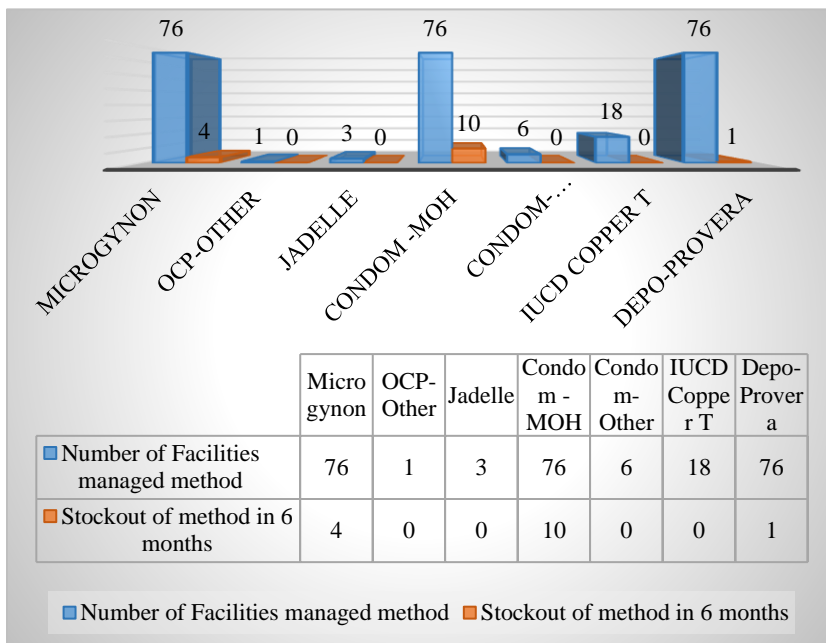


Table 4 summarises the number of stock-out and the average number of days that facilities experienced stock-out of a contraceptive method over the six-month review period. On average, facilities from the four regions experienced six (6) stock-outs of condoms over the review period. However, the average duration of the stock-outs of condoms lasted for approximately ninety-three (93) days or three months.

Table 4: Average Frequency and Number of Days of Stock-outs in the Last Six Months by Regional Health Authority

Contraceptive Products	Average Number of stock-out				Average Number of days of stock-out			
	SERHA	NERHA	SRHA	WRHA	SERHA	NERHA	SRHA	WRHA
<u>Microgynon</u>	-	-	2	1	-	-	8	15
OCP-Other	-	-	-	-	-	-	-	-
<u>Jadelle</u>	-	-	-	-	-	-	-	-
Condom - MOH	1	2	2	1	0	48.3	7.7	37
Condom-Other	-	-	-	-	-	-	-	-
IUCD Copper T	-	-	-	-	-	-	-	-
Depo-Provera	2	-	-	-	6	-	-	-
Other Injection	-	-	-	-	-	-	-	-

Logistics System Performance

The analysis presented in this section highlights key performance regarding the management and movement of contraceptive supplies and commodities at the facilities. The analysis was disaggregated under the following headings: Logistic Management Information System (LMIS), Reporting, Inventory Control, Ordering Procedures, Supervision, Record-keeping, Transportation and Storage Conditions.

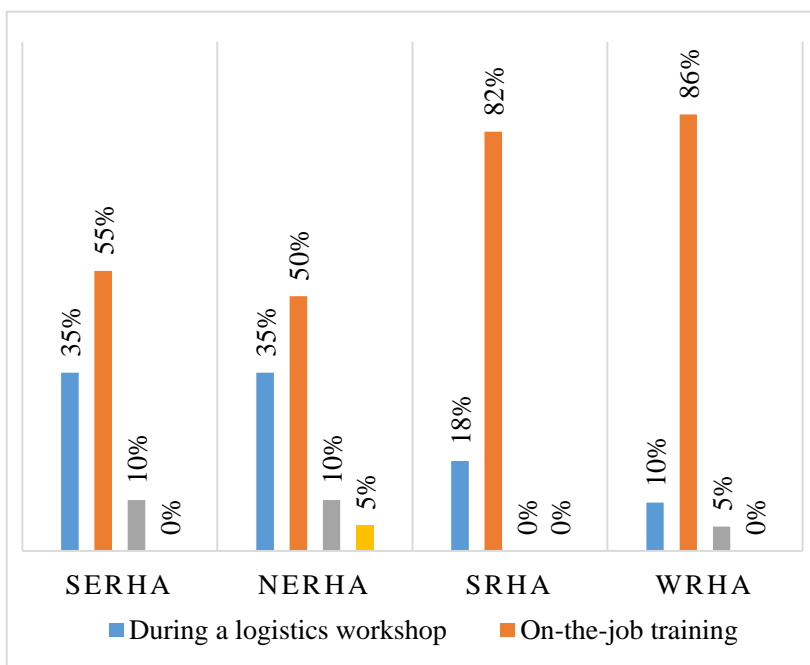
Logistics Management Information System

Based on observation, there is a relationship between the effectiveness of the CLMS and the training of health providers. Capacity building of key health care providers contributed greatly to quality data management. Overall, the analysis revealed that sixty-eight percent (68%; n = 53) of the nurses learned to complete the Monthly Clinic Summary Report, Contraceptive Logbook and Family Planning Register on the job. A further twenty-four percent (24%; n = 19) of the health providers learned to complete the aforementioned records during logistic workshops hosted by the RHAs or NFPB. However, approximately six percent (6%; n = 5) of the nurses indicated that they had not received any formal training to complete family planning records at their facility.

As presented in Figure 6, eighty-six percent (86%; n=18) of nurses from WRHA learned to complete the above-mentioned records on the job. These facilities had the highest percentage of personnel who learned to complete the records on the job when compared with other regions.

Thirty-five percent (35%; n=7) of the facilities in both NERHA and SERHA reported that their health professionals learned to complete the family planning records during a logistics workshop. A further eighteen percent (18%) from SRHA and ten percent (10%) from WRHA reported that they were taught to complete records during a logistic workshop either from the region or from NFPB. Additionally, both NERHA and SERHA reported that ten percent (10%; n=2) of their family planning providers were never given any formal training to complete the family planning records.

Figure 6: Percentage of Healthcare Workers Trained to Complete Forms and Records by Region

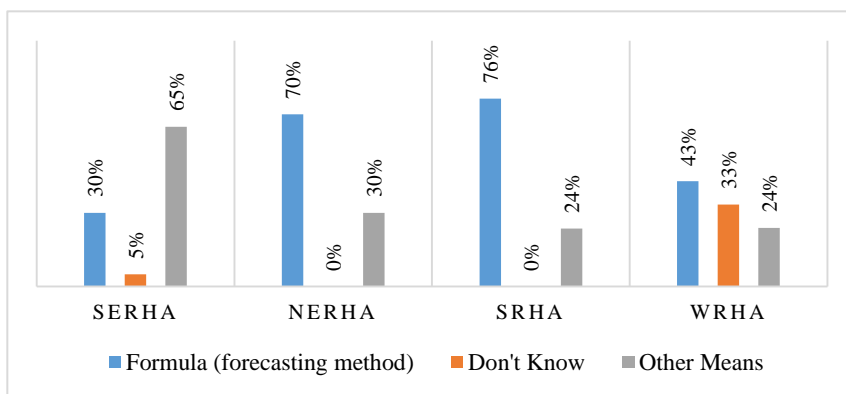


Maintaining a consistent supply of contraceptive products at service delivery points is crucial to maintaining an efficiently sound CLMS. Overall, forty-two health care workers/providers (42 or 53.8%) indicated that a forecasting formula (such as the simple average methodology) was used to determine resupply of quantities. A percentage of approximately thirty-six (36%; n=28) of the said respondents indicated that their facility resupply quantities was

determined by other means such as client appointment or balance in the logbook.

In alignment with Figure 7, SRHA reported the highest percentage (76%) of health facilities that were using forecasting method for determining resupply of quantities. This was followed by NERHA, WRHA and SERHA with 70%, 43% and 30% respectively. Based on the findings presented in Figure 7, sixty-five percent (65% or n=13) of the facilities in SERHA reported using other methods for determining resupply of contraceptive methods when compared with NERHA, SRHA and WRHA with 30%, 24% and 24% respectively. Of note, a third (33%) of the personnel from WRHA were unable to state how their facilities' resupply quantities were determined. Similarly, five percent (5%; n=1) of the healthcare workers from SERHA expressed not knowing how resupply quantities were determined.

Figure 7: Percentage of Facility Methods for Determining Resupply Quantities by Region

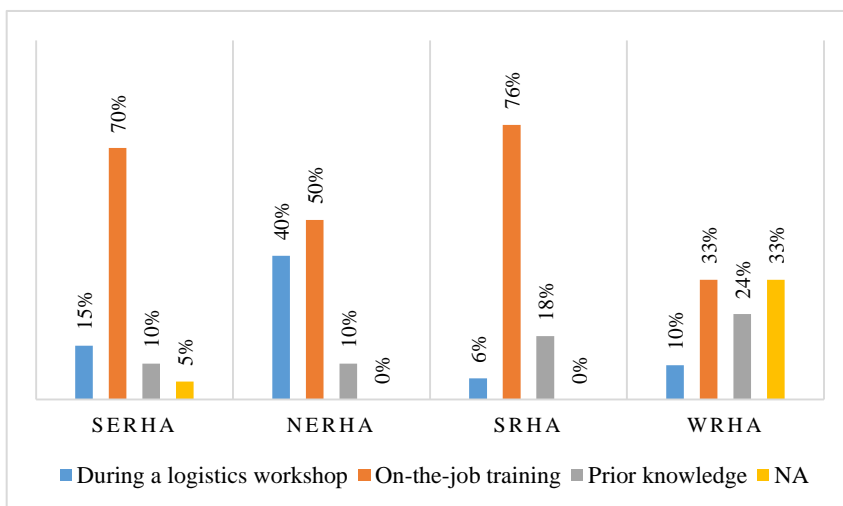


An assessment of how healthcare providers acquired the knowledge and skills to determine resupply of contraceptive methods revealed that, fifty-six percent (56%; n=44) of healthcare workers received on the job training; approximately eighteen percent (18%; n=14) received training during a logistic workshop (provided by NFPB). Twelve healthcare workers (n=12; 15.4%) indicated that they were not given any formal training to determine resupply quantities; however, they used prior knowledge of logistic management to assist with the estimation of their facility's contraceptive needs.

A regional break down of how healthcare providers learned to determine resupply of contraceptive method is displayed in Figure 8, where it is postulated that seventy-six percent (76%; n =10) of healthcare workers from SRHA reported receiving on-the-job training in determining resupply quantities. This percentage was followed by SERHA, NERHA and WRHA with 70%, 50% and 33% respectively. In addition, forty percent (40%; n = 8) of the healthcare workers from NERHA indicated that they received training during NFPB's logistic workshops. This represents a higher percentage when compared with SERHA, WRHA and SRHA with 15%, 10% and 6% respectively. However, approximately a third of the healthcare workers from both WRHA and SERHA were unaware of how the resupply of quantities were determined and were unable to state whether they were formally trained to perform the task at hand (Figure 8).

The findings above denote the relevance and importance of training healthcare workers in order to determine resupply of contraceptive quantities, as this would likely enable consistency in supply.

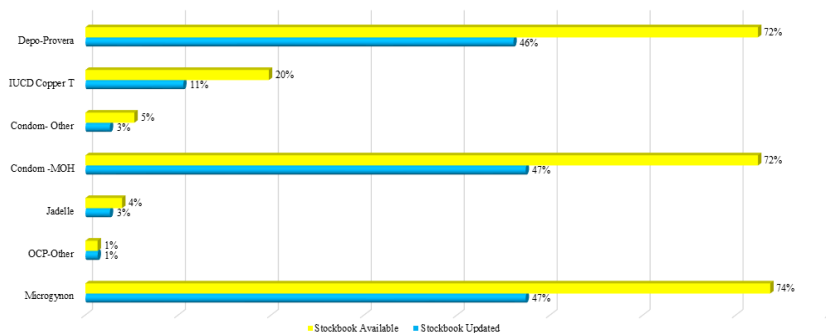
Figure 8: Percentage of Healthcare workers Trained to Determine Resupply Quantities by Region



A stock book is a CLMS tool that is used to record information on the contraceptive products managed at the health facilities. The survey findings indicated that seventy-four percent (74%; n=56) of the facilities that managed Microgynon reported having a stock book available for the product. However, out of the 74 facilities that reported having a stock book for Microgynon, only forty-seven percent (47%; n=36) of those stock books were updated. Of the fifty-five (n= 55; 72%) facilities that managed condoms issued by

Ministry of Health (MOH), only forty-seven percent (47%; n=36) had updated their stock books. In regard to Depo Provera, while seventy-two percent (72; n= 55) of the facilities reported having a stock book available, only forty-six percent (46%; n= 35) of these books were updated.

Figure 9: Percentage of Facilities with Stock-book Available and Updated by Method

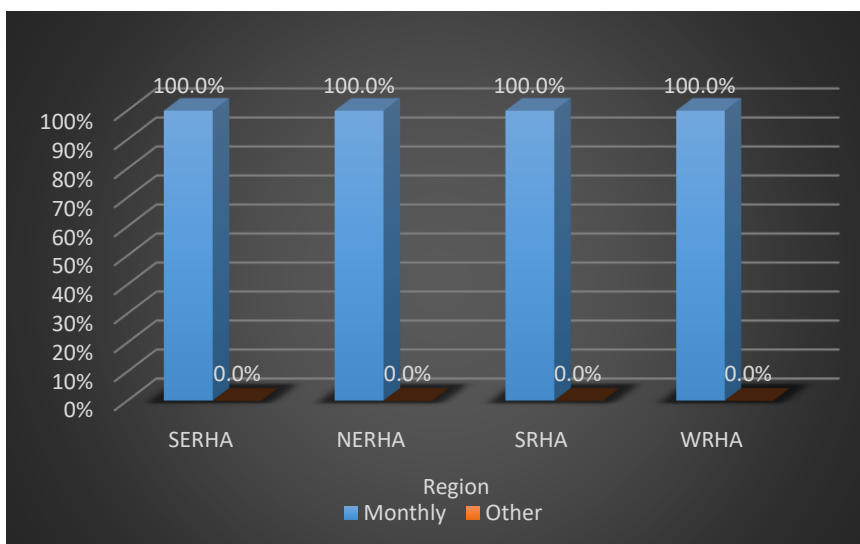


Reporting

The results indicated that reporting throughout the system was optimal, as the Monthly Clinic Summary Report (MCSR) was sent to higher level on a monthly basis. In essence, all seventy-eight (78) facilities indicated that, the MCSR was sent to Health Departments,

the Regional Health Authorities and then the Ministry of Health on a monthly basis, this depicting the higher hierarchical levels.

Figure 10: Percentage of Facilities Reported Sending Reports to Higher Level by Region

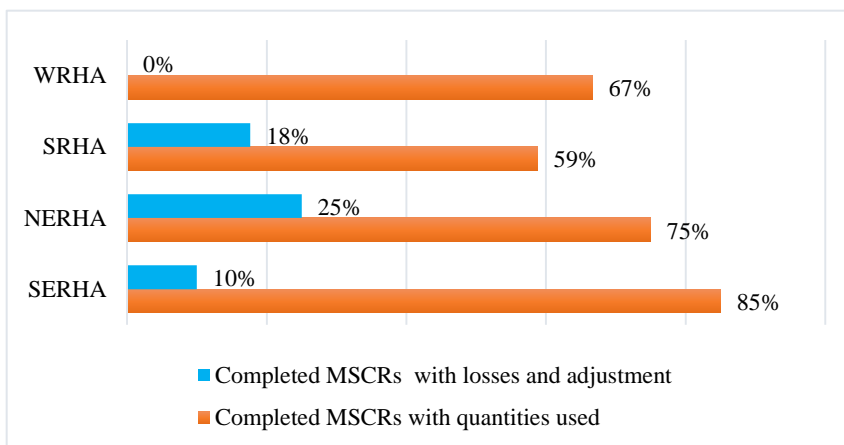


A completed MSCR usually provides information on consumption data and the quantity of contraceptive distributed and collected over a period of time. The MSCR however, does not usually provide information on losses and adjustment of contraceptive methods. The analysis found that 72 percent (n= 56) of the health providers reported that their completed MSCR included information on

quantities used. Conversely, thirteen percent (13%; n=10) of the health providers reported that their completed MSCR included information on losses and adjustment.

Disaggregating these results by region showed that eighty-five percent (85%; n=17) of facilities from SERHA reported that their completed MSCR included data on quantities used. This represented the highest percentage followed by NERHA, WRHA and SRHA with 75%, 67% and 59% respectively. However, the highest percentage of healthcare providers that reported that their completed MSCR included losses and adjustments were found in NERHA (25%), followed by SRHA and SERHA with 18% and 10% respectively.

Figure 11: Percentage of Facilities with Complete and Accurate MSCRs by Region



Inventory Control

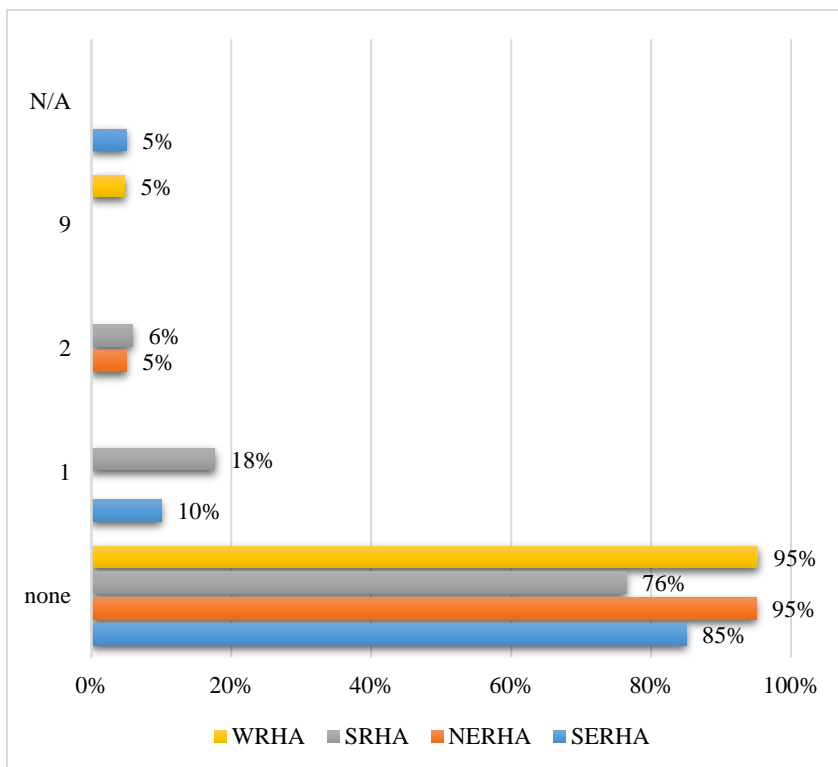
Adhering to stock management procedures is another vital component in strengthening CLMS. Therefore, the survey assessed the percentage of facilities that placed an emergency order within a three-month period prior to the assessment. As mentioned earlier, sixty-nine (n = 69 or 88%) facilities did not place any emergency order within the last three months.

Further analysis into the facilities that placed an emergency order within the reporting period indicated that six percent (6%; n=5) of those facilities placed one (1) emergency order within the mentioned

period. Additionally, three percent (3%) of the facilities placed two (2) emergency orders, while one (1) facility placed nine (9) emergency orders within the reporting period (Figure 12).

The findings revealed an increase in the percentage of facilities that did not place any emergency orders within the last 3 months prior to the survey when compared to 72.7 percent in the 2015 CLMS assessment.

Figure 12: Percentage of Facilities Placing an Emergency Order in Previous Three Months



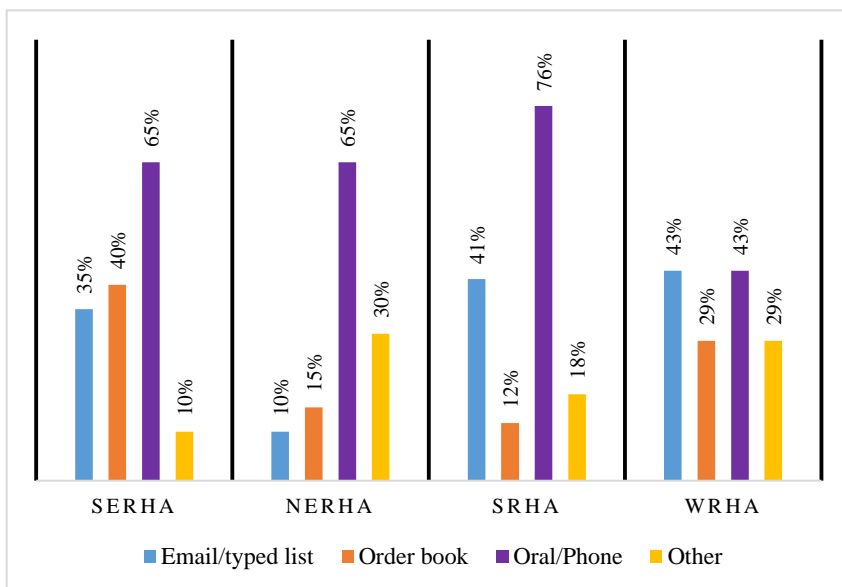
Ordering Procedures

Ordering procedures exist to ensure consistent supply of contraceptive products. The survey revealed that forty-eight (n= 48 or 61.5%) facilities ordered contraceptive methods via phone; thirty-two percent (32%; n= 25) of the facilities order contraceptives

via email or written request; and twenty-four percent (24%; n= 19) of the facilities reported using an order book as a medium for ordering products. Similarly, twenty-two percent (22% or n= 17) of the facilities reported visiting the health department to place an order.

A comparative analysis of the ordering patterns by region revealed that seventy-six percent (n=76 or 13%) of the facilities from SRHA reported the highest percentage of facilities which made their order request via phone. The other regions reported percentages of 65%, 65% and 43% for SERHA, NERHA, and WRHA, respectively. Eight (8 or 40%) facilities from SERHA used an order book to obtain contraceptives for their facility which is the highest percentage compared to the other regions. Forty-three percent (43%; n=9) of facilities in WRHA indicated making orders for contraceptives via email (Figure 13).

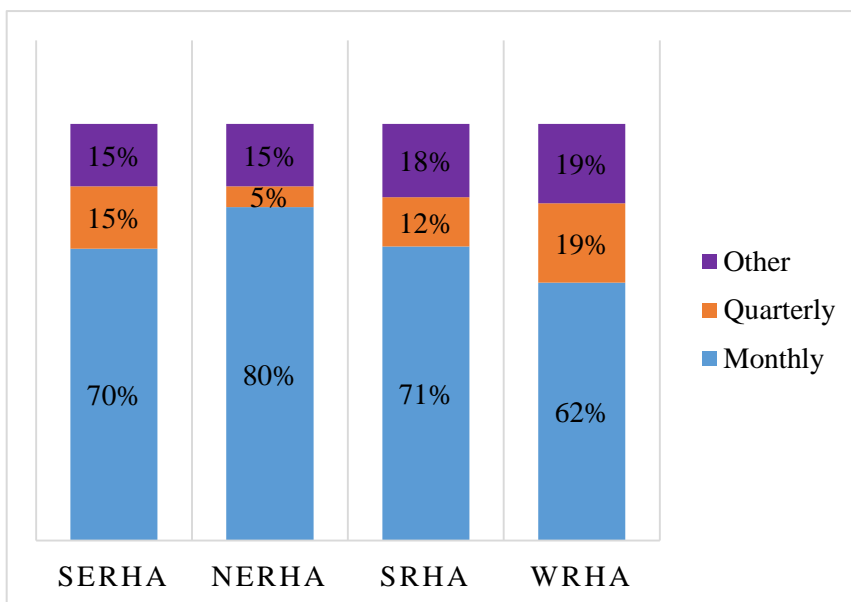
Figure 13: Percentage of Facilities Reported Mediums Used to Order Contraceptives by Region



The survey assessed the frequency of ordering request as a measure to monitor the efficiency of the stock management. The findings revealed that seventy-one percent (71%; n= 55) of the facilities placed orders on a monthly basis. Thirteen percent (13%; n=10) of facilities ordered contraceptives on a quarterly basis; while, seventeen percent (17%; n= 13) of facilities indicated that orders were sent to the higher level based on the demand for the products.

Disaggregating the frequency of ordering patterns by region illustrates that NERHA reported the highest percentage (80%) of facilities that placed their orders on a monthly basis followed by SRHA, SERHA and WRHA with 71%, 70% and 62% respectively. The survey highlighted that nineteen percent (19%; n= 4) of facilities within WRHA placed order for contraceptives on a quarterly basis. This represented the highest percentage of facilities when compared with other regions. Similarly, four facilities (n=4; 19%) within WRHA reported that contraceptives were ordered within different periods (Figure 14).

Figure 14: Percentage of Facilities Reported their Ordering Request Frequency

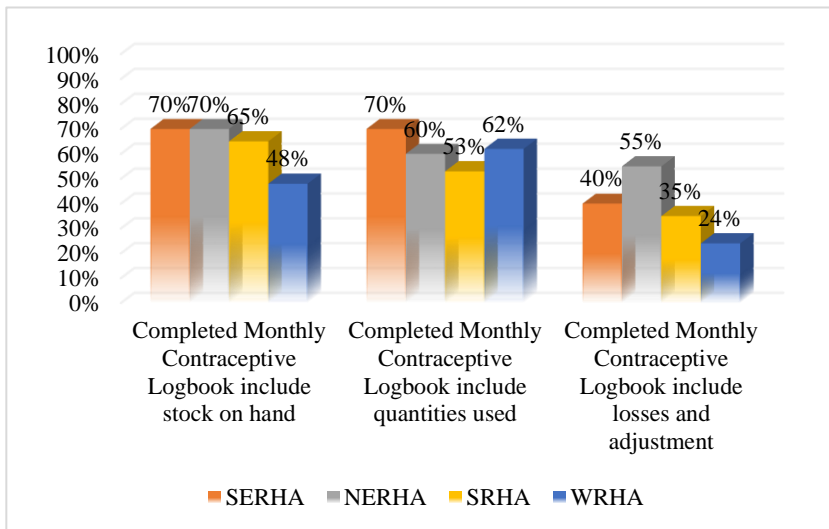


Record Keeping

The survey assessed the availability, accuracy and completeness of the Monthly Contraceptive Logbook (MCLB). Of the seventy-eight (n= 78) facilities sampled, sixty-three percent (63%; n= 49) completed the *stock on hand* section of the Monthly Contraceptive Logbook. Conversely, fewer facilities completed the *quantities used* (62 %) and the *losses and adjustments* (38%) section of the Monthly Contraceptive Logbook.

When the completeness of the MCLB was analysed by region, both SERHA and NERHA reported the highest percentage (70%) of facilities which completed the *stock on hand* section of the book. In addition, seventy percent (70%; n=14) of the facilities from SERHA indicated that they completed the *quantity used* section of the Monthly Contraceptive Logbook. This percentage was slightly higher than the other regions.

Figure 15: Percentage of Facilities with Completed and Accurate Monthly Contraceptive Logbook by Region



Supervision

Regular supervisory visits contribute to proper record-keeping and ordering procedures while promoting quality assurance practices. A major part of the CLMIS assessment was to investigate:

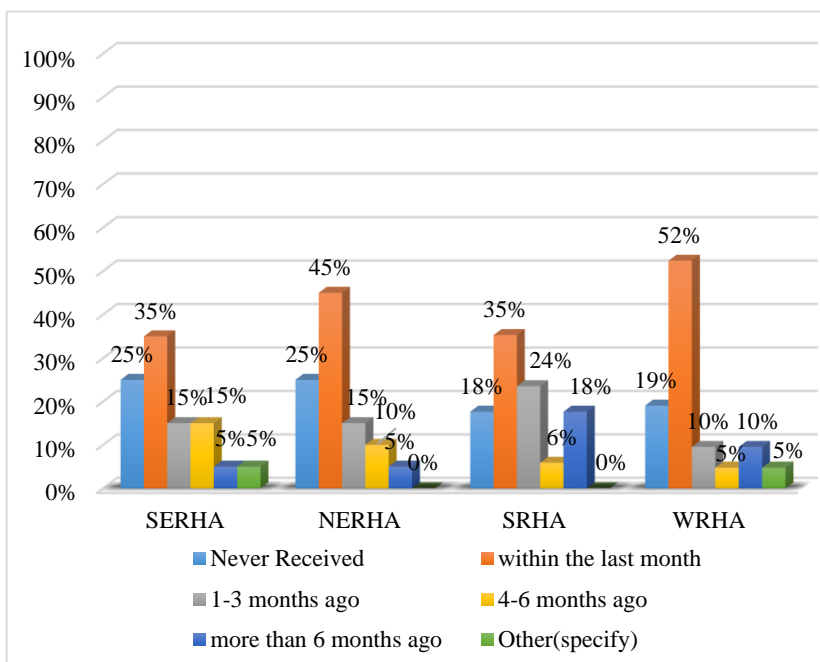
1. when the last supervisory visit occurred;
2. the frequency of the visit; and
3. whether the visit was specific to family planning, such as:
 - commodities check,
 - stock book check,
 - storage condition assessment, and
 - removal of expired products.

Overall, forty-two percent (42%; n=33) of the facilities in the survey recalled receiving their most recent supervisory visit within the last month prior to the survey. Conversely, twenty-two percent (22%; n=17) of the facilities indicated that they were never visited by their supervisor for family planning. Approximately, fifteen percent (15%; n= 12) facilities recalled receiving their last supervisory visit within 1 to 3 months prior to the survey, while nine percent (9%; n=

7) of the facilities indicated that they received their last supervisory visit more than 6 months prior to the survey.

Exploring supervisory visits by region revealed that eleven (n = 11 or 52%) of the health facilities within WRHA reported receiving their supervisory visit within a month prior to the survey. This represented the most notable percentage when compared with the other regions. Additionally, eighteen percent (18%; n= 3) of facilities within SRHA stated that they received their most recent supervisory more than six (6) months prior to the assessment. This is the highest percentage when compared with WRHA, NERHA and SERHA with 10%, 5% and 5% respectively. In contrast, both SERHA and NERHA reported that five (n= 5 or 25%) facilities did not receive any supervisory visit (Figure 16).

Figure 16: Percentage of facilities Reported Receiving Supervisory Visits



An in-depth analysis was done to examine the nature of the supervisory visits. The survey/assessment revealed that thirty-two (n= 32; 41%) facilities indicated that their supervisory visits included checking of contraceptive stock books. Twenty-three percent (23%; n = 18) of the facilities recalled that their last supervisory visit included the removing of expired stocks. Correspondingly, forty-six percent (46%; n= 36) of the facilities that received supervisory visit indicated that their storage condition was

checked. About half (56%; n = 44) of the facilities who recalled receiving supervisory visit, indicated that their supervisor checked their family planning reports.

Transportation

The provision of an efficient transportation system is a principal component in ensuring that the contraceptive methods are at the right place, at the right time, in the right quantity. Of the seventy-eight (78) facilities that were sampled, fifty-six percent (56 %; n=44) of the facilities indicated that they were responsible for picking up contraceptives for their facilities. On the other hand, thirty-one percent (31%; n=24) of the facilities confirmed that contraceptives were delivered from the health department, while four (n= 4 or 5%) facilities reported that contraceptives were delivered from higher level (National).

A Chi-square test analysis was conducted to determine whether the responsibility of collecting contraceptive commodities differed across the four regions. The result indicated that facilities within

their respective regions has different media for collecting contraceptive products for their facility (Table 5 below).

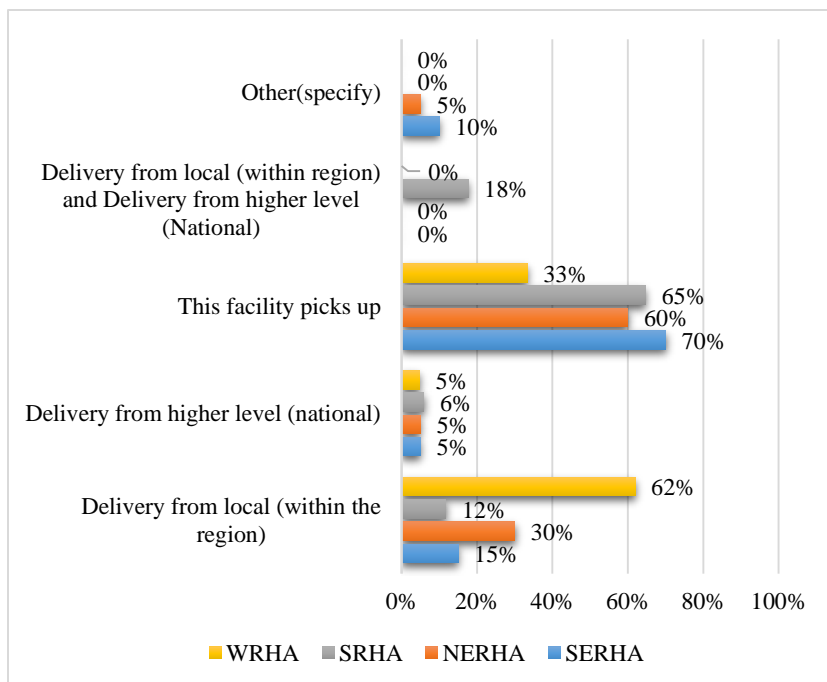
Table 5: Chi-Square Test with Media Used to Collect Contraceptives by Region

<i>Pearson Chi-Square</i>	<i>df</i>	<i>p-value</i>
26.913	12	0.008

Further analysis into the method of transportation by region revealed that seventy percent (70%; n = 14) of facilities within SERHA reported that they were responsible for picking up contraceptive products for their facilities. This represented the highest percentage

when compared with SRHA, NERHA and WRHA with percentages of 65%, 60% and 33% respectively.

Figure 17: Percentage of Facilities Reported Mediums in which Contraceptives were collected by Region



The type of transportation differed across region. Specifically, facilities within their respective regions were more likely to use different means of transportation (Table 6). That is, the majority (76%; n=59) of the facilities indicated using a private vehicle to transport contraceptives to their facilities. On the other hand,

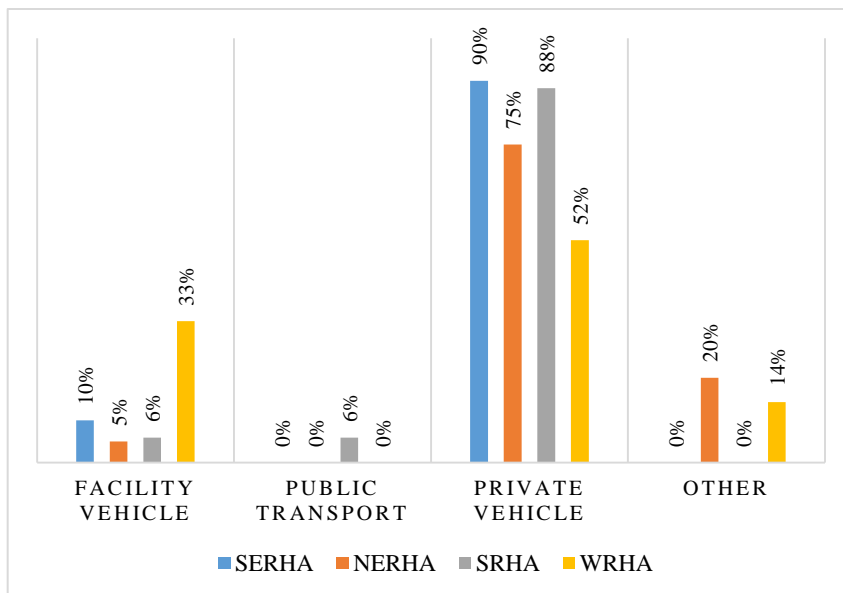
fourteen percent (14%; n=11) of the facilities that were sampled, indicated using their facilities' vehicle to transport commodities.

Across regions, ninety percent (90%; n = 18) of facilities within SERHA reported using a private vehicle to transport their contraceptives; representing a higher percentage than the other regions. For the Western Region, a third (33%; n=7) of the facilities indicated that they used a facility vehicle to transport their contraceptives. In general, private vehicle was the most common form of transportation used to transport contraceptive commodities (Figure 18).

Table 6: Chi-Square Test with Method of Transportation Used by Region

<i>Pearson Chi-Square</i>	<i>df</i>	<i>p-value</i>
19.962	9	0.018

Figure 18: Percentage of Facilities Reported the Method of Transportation Used by Region



Storage Conditions

Contraceptive storage is crucial as it enhances quality care. The storage area for all contraceptive commodities should meet a specific standard in order to ensure the safety and integrity of all products. The following criteria were used to physically assess each facility’s storage areas (Table 1).

The findings revealed that the least met storage condition was the availability of fire extinguishers. To elaborate, all the facilities reported having fire extinguishers; however, twenty-nine percent (29%; n= 21) of them were not recently serviced.

Figure 19: Percentage of Facilities within Northeast Region Individual Storage Condition

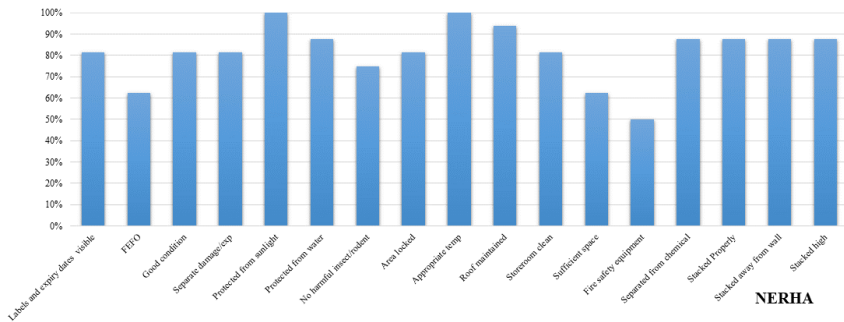


Figure 20: Percentage of Facilities within Southern Region Individual Storage Condition

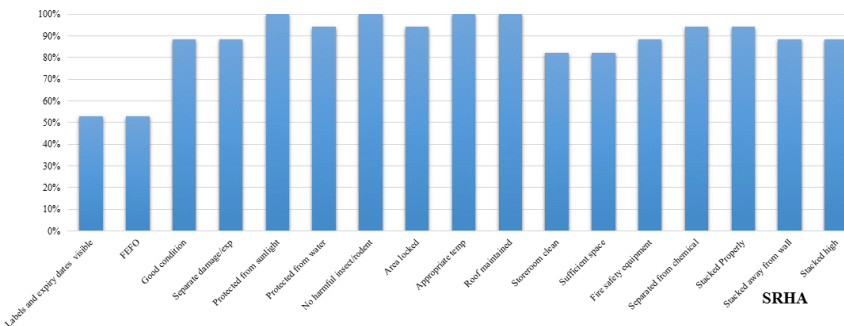


Figure 21: Percentage of Facilities within Southeast Region Individual Storage Condition

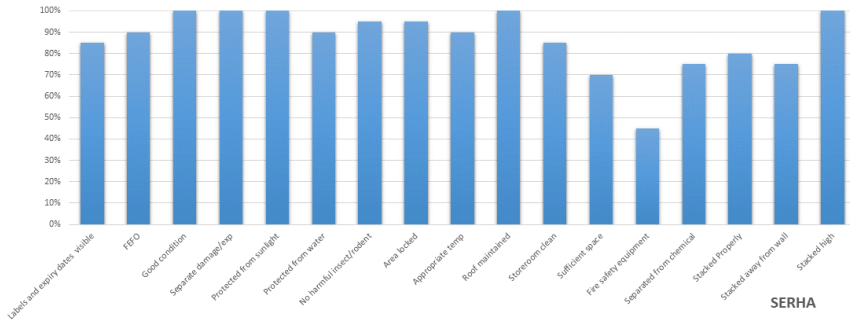
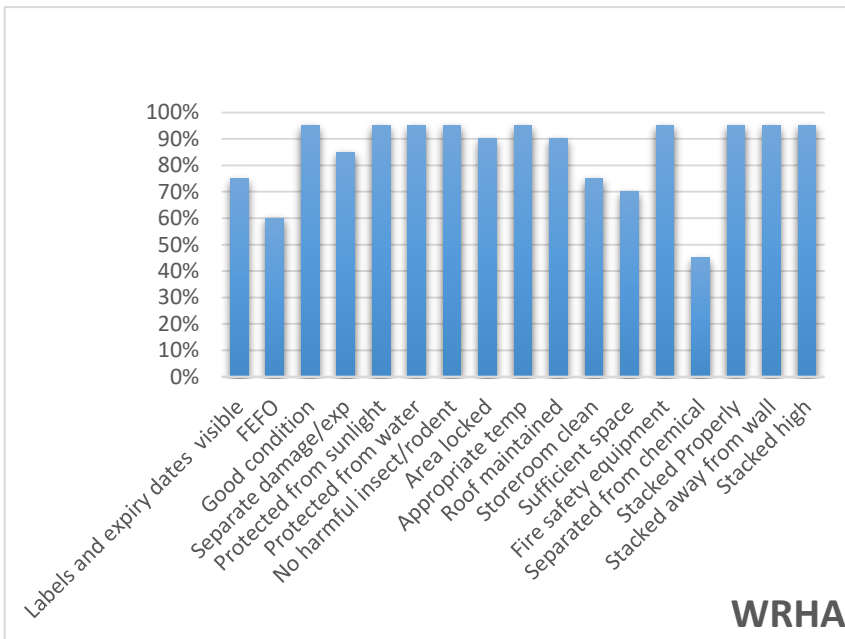


Figure 22: Percentage of Facilities within Western Region Individual Storage Condition



CONCLUSIONS

Since the inception of the Contraceptive Logistics Management Information System Survey in Jamaica in 2013, the overall prevalence of stock-out of contraceptive commodities continues to trend downward. As a result, stock-out on the days of visit declined to five (5) percent. While this is of significant improvement, some facilities were still experiencing long period of stock-outs, especially relating to condoms. Even though most facilities had a stock book available, on average, about half of the stock books were not updated. This is of concern, as regular updating of stock book is important for efficient record-keeping and stock management.

Overall, the majority (53) of staff received on-the-job CLMS training. However, quite a few staff members (n=5) did not receive any formal CLMS training. It was also evident that facilities were adhering to inventory control procedure, as most facilities did not place an emergency order within the last three months.

A small percentage of staff members had not received any supervisory visits. On the other hand, the majority of facilities that received a visit, reported that the visit was not specific to family planning.

The main method used to transport contraceptive methods to the facilities was a private vehicle. The findings illustrated that transportation of contraceptive commodities differed across respective regions.

In regard to the storage conditions, majority of the facilities' storage areas was in an acceptable condition. However, even though most facilities had a fire extinguisher present at the facility, the data collectors noted that they were not serviced. As a result, appropriate fire equipment was the least-met criteria. Some facilities were also observed storing other chemicals among the contraceptive methods.

IMPORTANT NOTING PER RESULTS

The findings of the CLMIS survey suggested that the national family planning programme continued to make significant improvement in the areas of contraceptive method availability and overall stock management. While the organisation poised itself as a watch-dog for strengthening of the CLMIS in alignment with sustainable development, the implication of the key findings are discussed hereunder:

1. Reduction in Stock-out of contraceptive methods

Contraceptive stock-outs was assessed both on the day of the investigation and over a six-month period (August 2018 to February 2019). The reduction in stock-out on the day of the visit from 17% in 2015 to 5% in 2019 supports the improvement in the system as stated above. This result indicates that there is now a 95% chance that a family planning client will get their method of choice at any selected health center island-wide, if they should randomly select a health center to visit. The probability of receiving a preferred method of contraception decreases (80%) if a woman were to visit a

selected health center consistently over a six-month period. Therefore, even though these results are good, there is still work to be done to ensure that stock-out is eliminated. Stock-out in any contraceptive system will lead to increase in the incidence and prevalence of pregnancy, unmet need for family planning and decrease in the contraceptive prevalence rate.

2. Record Keeping and CLMS Forms

The main type of training reported by more than two-third of the family planning providers was on the job training. The major limitation with this type of training is that the quality of the information transferred between health providers is difficult to manage because it is largely based on the level of understanding from the individual transferring the information. That is, if the individual providing the information has limited knowledge-base, then this will also be transferred to the trainee. This is supported by the percentage of facilities that reported that the MCSR contains a section that reports on losses and adjustment of contraceptive methods, which is not factual; the MCSR contains sections which

provide data on the number of contraceptive acceptance by age, sex and type of users, but it was not design to provide information on inventory control methods such as losses, adjustments and ordering patterns. These data should be captured either in the monthly contraceptive logbook or any other facility designed contraceptive management record. The impact of this error can lead to incorrect records being captured and sent throughout the system affecting policies and programmes decisions.

It was also discovered by the result that the Monthly Contraceptive Logbook that was designed to standardise inventory management was not being used by the majority of the health centers. The general reason provided was that the health providers did not understand how to complete sections of the book. This could further explain the challenges that exist regarding record keeping and inventory control.

3. Inventory Control

The survey assessed the ordering patterns, frequency and procedures of the health facilities. Most facilities place their contraceptive orders on a monthly basis via telephone, email or order book. The methodology and frequency of ordering practices work in most cases but can be more efficient if minimum, maximum and lead time inventory procedures are applied. These methodology would streamline the current ad hoc ordering practices, and ultimately result in an elimination of stock-out through the CLMIS. It would also reduce the need for emergency ordering that is reported by some health centers.

4. Supervisory Visits

Regular supervisory visits specific to or including family planning was reported to be inconsistent results of the survey. More than half of the facilities reporting not receiving monthly supervisory visits for family planning. The effect of lack of supervision of the contraceptive management at the facility level can attribute to the incomplete and incorrect records, poor storage conditions and inefficient inventory control practices. Improvement in the

supervision will invariably lead to further improvements in the system and would also contribute to the eradication of stock-out through the system.

5. Storage conditions

The assessment of storage conditions through the system is challenging given the reality of the health facilities. Most of the health facilities use file cabinets as storage areas for the methods due to a lack of a designated area for contraceptive storage or sufficient space. Therefore, the assessment was conducted to ascertain if these areas, which were deemed adequate, were free from rodent droppings, were secured with locks and keys and were kept at the appropriate temperature (room temperature) for the efficacy of the products. Based on these criteria, most health facilities were assessed to have adequate storage facilities for the methods. The major concern was observed with the fire safety equipment. Facilities either did not have a fire extinguisher or a recently serviced one. This result is critical because in the event of a fire, the facilities appear, based on the assessment, to be ill-equipped to

adequately protect themselves or the products. Therefore, more work needs to be done in this area in order to protect the family planning providers and the products.

RECOMMENDATIONS

Arising from the analysis are the following recommendations:

Establish a family planning supervision protocol

The frequency of supervisory visit and the nature of the visit should be addressed as the analysis revealed that a lack of regular supervision exists. This is a key component in strengthening the CLMIS. Protocol should be developed, with the aid of the nursing supervisors to assist the nurses in doing family planning supervision. This is because where visits were done, family planning were not considered in some instances. Both the quality and frequency of supervision should be addressed. Supportive supervisory visits should, therefore, be intensified at all levels according to the supervision plan, and include logistics management as part of supervision for FP products. Additionally, supervisory visits should

ensure that staff, as well as clients, are aware of the new protocol. Use scheduled meetings, such as the FP coordinators' conference, to update staff; provide refresher training; and share lessons learned to strengthen and reinforce the standard operating procedures of the CLMS.

Formal CLMS training for staff

In an effort to continue the strengthening of CLMS, staff members should be given formal training in proper logistic management. The logistic training should provide comprehensive insight on inventory control and reporting procedures; such as completing stock book, contraceptive logbooks and other forms/records used at the facilities. The training should reinforce information on forecasting procedures and other methods used to determine resupply quantities. Such training would likely help staff members to keep up-to-date stock books and proper inventory records, hence, the likely alleviation of stock-out which would normally be caused by improper inventory and procurement planning at the facility level.

Coupled with the training and the evaluation of same via the Kirkpatrick Evaluation Model, an evaluation of the CLMIS would be useful from a programme level, using the OECD-DAC Model. This would likely enable decision-making regarding the model's tenets: Relevance, Effectiveness, Efficiency, Impact and Sustainability. Note that this model came about in 1991.

Advocating for regular servicing of fire equipment within the health centers

While many health centers have fire extinguishers mounted at their facilities, a large majority of these extinguishers were not recently serviced. Therefore, the recommendation should be made to the fire departments within the parishes to assist the health centers in keeping their fire extinguishers up-to-date.

FRUITION GARNERED

The following are the positive outcomes since the CLMIS Survey:

1. From the CLMIS Survey and its dissemination thereof, gaps that were identified were addressed. Some of these were the need for capacity building in Contraceptive Forecasting, more stringent clinic/site monitoring/visits, and evaluations.
2. CLMIS strengthened, showing significant reduction in stock-out.
3. Conference presentations of the survey findings.
4. Transformation of survey findings into journal articles - International peer-reviewed journals. These articles per publications are:

Strengthening of the Contraceptive Logistics Management Information System in Jamaica by TV. Crawford, S-M. Hill, AD. Black, DC. Grant, MZ. Joseph, International Journal of Social Science and Humanities Research, 2018; 6(3), pp. 368-375.

Jamaica's Contraceptive Logistics Management information System in the Era of Sustainable Development: A Best Practice Approach by TV. Crawford, DC. Grant, AD. Black, MZ. Joseph CA. Dosunmu, International Journal of Healthcare Sciences, 2020; 7(2), pp. 479-488.

Capacity Building of Healthcare Professionals within the Context of Sustainable Development by TV. Crawford, DC. Grant, AD. Black, MZ Joseph, CA. Dosunmu, J. Martin, KF. Parchment, 2020; 8(4) International Journal of Social Science and Humanities Research, 8(4), pp. 21-31.

5. Interview by media house, The Jamaica Information Service (see Appendix B)

REFERENCES

1. Crawford, T., Hill, S., Black, A., Grant, D., Joseph, M. (2015). *Strengthening of the Contraceptive Logistic Management Information System in Jamaica*. Kingston: National Family Planning Board
2. Serbanescu, F., Ruiz, A., Suchdev, DB. (2010). *Reproductive Health Survey Jamaica 2008: Final Report*. Atlanta, GA (USA) and Kingston, Jamaica.
3. National Family Planning Board (2014). *Jamaica National Integrated Strategic Plan for Sexual and Reproductive Health and HIV (2014 – 2019)*. Kingston: National Family Planning Board

APPENDIX A: LIAT

LOGISTICS INDICATORS ASSESSMENT TOOL (LIAT)

INTERVIEWER'S GUIDE

Facility Identification

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.

Information about Interview

Record the date the interview took place and list the names of the interviewers.

Introduction

Use the text here to guide your introduction of the survey to facility staff.

Questions 01 to 05

Receive permission to conduct the interview and record information regarding the interviewee.

Questions 101 to 117

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.

Questions 118 to 122

These questions are to be asked at facilities that are part of a cold chain system.

Questions 123 to 126

The following questions in this section should be asked of the storeroom manager.

Table 1: 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: Storage Conditions	Record observations on the main storage area (even if it is a cabinet) by responding to storage conditions 1 to 14 for every facility visited. For large storage areas that require stacking of multiple boxes, continue to complete storage conditions 15 to 17.
Table 3: Data Quality	Complete the table for all or for a selection of products.
Table 4: Forecast Accuracy	Complete the table for all or for a selection of products.
Table 5: 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.

Facility Services and Infrastructure

FACILITY IDENTIFICATION

Name of the facility _____	
<u>Facility location</u>	
City/town: _____	Region
Region _____	District
District _____	Facility Code
Code of the facility.....	SDP
Facility Type: (1=SDP)	
If SDP, mark type of facility: (1=Community hospital; 2=Hospital; 3=Health centre; 7=Other _____)	SDP Facility Type..... <input type="checkbox"/>
Operating Authority 1=MOH; 2=NGO.....	Operating Authority
Facility characteristics: Paved road to the facility? (0=no; 1=yes)	Paved road
Operational electricity on day of visit? (0=no; 1=yes)	Electricity
Operational water in the building on the day of visit? (0=no; 1=yes)	Water
	External Communication.....

Operational telephone (land line or mobile) on day of visit? (0=no; 1=yes)

Date:

DAY/ MONTH/
YEAR

--	--

--	--

--	--

Interviewer/s:

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

Explain the objectives of this survey:

Good day. My name is _____. My colleague and I are representing the National Family Planning Board. 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 those products. We are visiting selected health facilities throughout the country; this facility was randomly 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 health products. This is not a supervisory visit and the performance of individual staff members is not being evaluated.

The results of this national survey will provide information to make decisions and to promote improvements. The survey will be conducted again in the future to measure changes in the logistics system. We would like to ask the person in charge of contraceptive management a series of questions about the 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. Do you have any questions?

Ask the in-charge to introduce the team to the person managing commodities. Extend the invitation to the in-charge to stay with the team but explain that we are aware that they have other responsibilities. Offer to check back with him/her before leaving the facility.

No.	Question	Code Classification	Go To
01.	Can we continue?	Yes..... 1 No..... 0	→STOP
02.	Name and title and contact phone number of person interviewed for this survey	Name: _____ Title: _____ Contact number: _____	
03.	Number of years and months you have worked at this facility?	Years: _____ Months: _____	
04.	Who is the principal person responsible for managing contraceptive supplies at this facility?	Nurse 1 Public Health Nurse..... 2 Pharmacy Technician 3 RNM.....4 Pharmacist..... 5 Midwife.....6 Other (Specify) _____9	
05.	Is supplies/stock management the primary role of this person at this facility?	Yes..... 1 No..... 0	

First, ask the following questions of the person in-charge. After asking questions 101–131, 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. Hand the respondent the list of products that are included in the survey, and explain that we will refer to the list for some of the following questions.

No.	Questions	Code Classification	Go To/ Comments
101	Do you use the following stock keeping logistics forms to manage contraceptive commodities in this facility?		
	A. stock cards/bin card/ inventory control card	Yes 1 No 0	

	B. stock ledger/stock book (ruled)	Yes 1 No 0	
	C. Monthly Contraceptive Logbook	Yes 1 No 0	
	D. other	Yes 1 (specify) _____ _____	
		No 0	
	What forms or formats do you use for reporting on contraceptives? (Select all that applies)		
102	A. MCSR	Yes 1 No 0	
	B. Condom Distribution Log	Yes 1 No 0	
	C. Monthly Contraceptive Logbook	Yes 1 No 0	
	Do the MCSR reports include the following for reporting?		
103	A. quantities used (distributed to clients)	Yes 1 No 0 N/A 99	
	B. losses and adjustments	Yes 1 No 0 N/A 99	
	Does the Condom Distribution Log include the following for reporting?		
104	B. quantities used (distributed to clients)	Yes 1 No 0 N/A 99	
	C. losses and adjustments	Yes 1 No 0 N/A 99	
105	Does the Monthly Contraceptive Logbook include the following for reporting?		

	A. stock on hand	Yes 1 No 0 N/A 99	
	B. quantities used (distributed to clients)	Yes 1 No 0 N/A 99	
	C. losses and adjustments	Yes 1 No 0 N/A 99	

	What form or formats do you use for ordering contraceptives? (Ask to see a sample of the form)		
106	A. Order Book	Yes 1 No 0	
	B. Written/typed list or email	Yes 1 No 0	
	C. Oral/Phone order	Yes 1 No 0	
	D. Other	Yes 1 (specify) _____	
		_____ 0	

	Do the formats used for ordering include the following?		
107	A. stock on hand	Yes 1 No 0 N/A 99	
	B. quantities used (distributed to clients)	Yes 1 No 0 N/A 99	
	C. losses and adjustments	Yes 1 No 0 N/A 99	

Ask interviewee to see most recently completed MSCR, Condom Distribution Logs and Monthly Contraceptive Logbook if available.

	Does the completed MCSR reports include the following? (must be verified with completed report)		
109	A. quantities used (distributed to clients)	Yes 1 No 0 Completed report not available 9	

	B. losses and adjustments	Yes 1 No 0 Completed report not available 9	
110	Does the <u>completed</u> Condom Distribution Log report include the following? (must be verified with completed report)		
	A. quantities used (distributed to clients)	Yes 1 No 0 Completed report not available 9	
	B. losses and adjustments	Yes 1 No 0 Completed report not available 9	
111	Does the completed Monthly Contraceptive Log Book include the following? (must be verified with completed report)		
	A. stock on hand	Yes 1 No 0 Completed report not available 9	
	B. quantities used (distributed to clients)	Yes 1 No 0 Completed report not available 9	
	C. losses and adjustments	Yes 1 No 0 Completed report not available 9	
113	How often are MCSR reports sent to the higher level? (<i>Circle all that apply.</i>)	Monthly.....A Quarterly.....B Semi-annually.....C AnnuallyD Other.....W	

114	How often are Condom Distribution Logs sent to the higher level? (<i>Circle all that apply.</i>)	Monthly..... A QuarterlyB Semi-annuallyC AnnuallyD Other.....W	
115	How often are ordering requests sent to the higher level? (<i>Circle all that apply.</i>)	Monthly..... A QuarterlyB Semi-annuallyC AnnuallyD Other.....W	
116	When was the last time you sent a Condom Distribution Log report for products at this facility?	Never 1 Within the last month2 2 months ago3 3 months ago4 More than 3 months ago5 N/A.....6	
117	When was the last time you made an order request for products at this facility?	Never 1 Within the last month2 2 months ago3 3 months ago4 More than 3 months ago5	
118	How many facilities are supposed to send MCSR reports to this facility?	_____ Not Applicable.....9	If all are 'Not Applicable' SKIP to 125
119	How many facilities are supposed to send Condom distribution log reports to this facility?	_____ Not Applicable.....9	

120	How many facilities submitted complete MCSR for the month of December, 2018? (Two months prior to survey month)?	<p>_____</p> <p>Ask to see reports and check here if verified.</p> <p>_____</p> <p>Not Applicable.....9</p>	
121	How many facilities submitted complete Condom distribution reports for the month of December, 2018? (Two months prior to survey month)?	<p>_____</p> <p>Ask to see reports and check here if verified.</p> <p>_____</p> <p>Not Applicable.....9</p>	
122	How did you learn to complete the forms/records used at this facility? (Circle all that apply.)	<p>During a logistics workshop A</p> <p>On-the-job training B</p> <p>Never been trained..... C</p> <p>Other (specify) _____ W</p>	
123	How many emergency orders for contraceptives have you placed in the last 3 months?	<p>None 0</p> <p>1 1</p> <p>2 2</p> <p>3 3</p> <p>More than 3 4</p> <p>NA 9</p>	
124	Who determines this facility's resupply quantities? (Circle all that apply.)	<p>The facility itself A</p> <p>Higher-level facility ... B</p> <p>Other _____ W</p>	<p>Specify the person who is responsible for determining the resupply quantity</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

125	How are the facility's resupply quantities determined?	Formula (Forecasting Method) _____ 1 Don't know2 Other means.....9	
126	How did you learn to apply the forecasting methodology to determine resupply quantity?	During a logistics workshop _____ A On-the-job training __ B Prior Knowledge ____ C Other (specify)_____ W	
127	Who is responsible for bringing products to your facility? (Circle all that apply.)	Delivery from local (within Region)..... A Delivery from higher level (National) B This facility picks up ..D Other (specify) _____ _____ W	
128	What type of transportation is most often used? Pick one.	Facility vehicle 1 Public transportation2 Private vehicle3 Motorcycle4 Bicycle5 Other (specify)_____9	
129	On average, approximately how long does it take between ordering and receiving products?	Less than 2 weeks 1 2 weeks to 1 month2 Between 1 and 2 months3 More than 2 months4	
130	When did you receive your most recent supervisory visit? <i>Check visitors book, if necessary.</i>	Never received..... 1 Within the last month ..2 1 - 3 months ago3 4 - 6 months ago4 More than 6 months ago5 Other (specify)_____9	
131	Did your last supervisory visit include the following?		
	stock book checked	Yes 1 No 0 Don't know 9	

expired stock removed	Yes 1 No 0 Don't know 9
reports checked	Yes 1 No 0 Don't know 9
storage conditions checked	Yes 1 No 0 Don't know 9

Thank you for your 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.

Health Professionals Trained in Contraceptive Forecasting

AUGUST 24, 2017



WRITTEN BY: PETA GAY HODGES

“A total of 120 midwives and public health nurses islandwide recently completed training in contraceptive forecasting, which was provided by the National Family Planning Board (NFPB).

The training was recommended in the Contraceptive Logistics Management Information Systems Survey Report, which stipulated the need for healthcare professionals to be engaged in contraceptive forecasting methodologies to facilitate accurate predictions in order to alleviate commodity shortages or “stock-outs”.

The report was drafted following surveys conducted in 2013 and 2015 that indicated the need for training.

The NFPB’s Director, Monitoring, Evaluation and Research, Tazhmoye Crawford, said the training, which commenced during the first quarter of the 2017/18 fiscal year, concluded on August 11.

According to the NFPB, the exercise has led to notable improvements in record-keeping, storage and forecasting methodologies, and significant reductions in the incidence of contraceptive stock-out or shortages in health centres islandwide.

Just under two years ago, reports surfaced of a shortage of contraceptive commodities at some of the island’s government-run health clinics.

Studies have cautioned that a consequence of stock-outs is an increase in sexually transmitted infections and unplanned pregnancies.

As an accompaniment to the training process and for system strengthening of contraceptive management at the clinic and parish levels, the NFPB has also revised and standardised a family planning register and contraceptive logbook for islandwide distribution, documentation, and monitoring of contraceptive use”.

JAMAICA INFORMATION SERVICE

KINGSTON, Jamaica(JIS) — A total of 120 midwives and public health nurses islandwide recently completed training in contraceptive forecasting, which was provided by the National Family Planning Board (NFPB).

The training was recommended in the Contraceptive Logistics Management Information Systems Survey Report, which stipulated the need for healthcare professionals to be engaged in contraceptive forecasting methodologies to facilitate accurate predictions in order to alleviate commodity shortages or “stock-outs”.

The report was drafted following surveys conducted in 2013 and 2015 that indicated the need for training.

The NFPB's Director, Monitoring, Evaluation and Research, Tazhmoye Crawford, said the training, which commenced during the first quarter of the 2017/18 fiscal year, concluded on August 11.

According to the NFPB, the exercise has led to notable improvements in record-keeping, storage and forecasting methodologies, and significant reductions in the incidence of contraceptive stock-out or shortages in health centres islandwide. Just under two years ago, reports surfaced of a shortage of contraceptive commodities at some of the island's government-run health clinics.

Studies have cautioned that a consequence of stock-outs is an increase in sexually transmitted infections and unplanned pregnancies.