GOVERNMENT OF SIERRA LEONE

Survey of Availability of Modern Contraceptives and Essential Life-Saving Maternal and Reproductive Health Medicines in Service Delivery Points in Sierra Leone

VOLUME ONE

ANALYTICAL REPORT

February 2011

UNFPA SIERRA LEONE

Because everyone counts

This is Volume One of the results of the Survey on the *Availability of Modern Contraceptives and Essential Life-Saving Maternal and Reproductive Health Medicines in Service Delivery Points in Sierra Leone*. *It is published by the United Nations Population Fund (UNFPA) Country Office in Sierra Leone*. It presents the Analytical Report, while the Volume Two (published separately) contains all tables generated from collected data. Both are intended to fill the critical dearth of reliable, high quality and timely data for programme monitoring and evaluation.

PREFACE

This first annual report of the 'Survey of Modern Contraceptives and Essential Life-Saving Maternal and Reproductive Health Medicines in Service Delivery Points' in Sierra Leone is part of the new reporting system of the Global Programme on Reproductive Health Commodity Security (GPRHCS). The survey was undertaken to provide benchmark data information which are essential for sound Reproductive Health Commodity Security (RHCS) planning and for making administrative and policy decisions about the same. Three outcome indicators in the reporting framework were assessed to obtain data for the following country level indicators:

I. Percentage of Service Delivery Points (SDPs) offering at least three modern methods of contraceptives;

II. Percentage of SDPs where five selected life-saving maternal/RH medicines are available in all facilities providing delivery services, and

III. Percentage of SDPs with 'no stock-outs' of contraceptives in the six months preceding the survey (April-September 2010).

Government of Sierra Leone and UNFPA acknowledge the valuable contributions received from various institutions and individuals that made the exercise the success it has been. In particular, we recognize the oversight functions and very high quality administrative and technical inputs of the GPRS Survey Steering Committee; with broad membership of stakeholders in the health sector of which the Reproductive Health Division (RHD) of Ministry of Health and Sanitation (MoHS) and the Parliamentary Committee on Health and Sanitation are co-Chairs. Credit is also given to the contributions of the Technical Committee that is jointly chaired by the Department of Planning and Information (DPI) of MoHS and Statistics Sierra Leone (SSL). Our thanks also go to the various District Health Medical Teams (DHMTs) for their willingness to participate in the survey and provide relevant information. The exercise was managed by the RHCS Advisor of UNFPA Sierra Leone. Finally, we are pleased with the highly professional and leading technical role played by the Principal Investigator and UNFPA Consultant, Mr. Ibrahim Mohamed Sesay, and the Research Assistant, Mrs. Cecilia M.S. Sesay.

The report is in two volumes: Volume One presents the Analytical Report and Volume Two contains all tables generated from collected data. Coming in the penultimate year of implementation of the Contraceptive Commodity Security Strategic Plan (2007-2011), the information will be desirable for implementation and co-ordination of family planning and programming of emergency obstetric care by helping to fill the critical dearth of reliable, high quality and timely data for programme monitoring and evaluation. The survey results will, therefore, be invaluable for the revision of the Plan and the repositioning family planning in Sierra Leone. We therefore recommend this report to anyone really interested in understanding the most up-to-date Modern Contraceptives and Essential Life-Saving Maternal and Reproductive Health Medicines in Service Delivery Points' in Sierra Leone.

Ratidzai Ndlovu (Mrs.)
UNFPA Representative,
Republic of Sierra Leone

Zainab Hawa Bangura (Mrs)
Minister of Health and Sanitation
Republic of Sierra Leone

TABLE OF CONTENTS

ANNEXES

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

CHC	Community Health Centre
CHO	Community health officer
CHP	Community Health Post
CSB	Commodity Security Branch (UN Headquarters)
CSEntry	MFC Application of CSPro for Data Entry
CSExport	MFC Application of CSPro for Data Export
DHMT	District Health Management Team
DMOs	District Medical Officers
DPI	Department of Planning and Information
GPRHCS	Global Programme to enhance RHCS
IUDs	Intra Uterine Devices
MCH Aides	Maternal and Child Health Aides
MCHP	Maternal and Child Health Post
MDGs	Millennium Development Coals
MoHS	Ministry of Health and Sanitation
NGO	Non Governmental Organization
P.C.M.H	Princess Christian Maternity Hospital
PHUs	Peripheral Health Units
RH	Reproductive Health
RHCS	Reproductive Health Commodity Security
RHD	Reproductive Health Division
SDPs	Service Delivery Points
SECHN	State Enrolled Community Health Nurse
SPSS	Statistical Package for Social Scientists
SSL	Statistics Sierra Leone
TBAs	Traditional Birth Attendants

EXECUTIVE SUMMARY

Sierra Leone has a population of about 5.7 million, with an annual growth rate of 1.8 percent and a doubling time of only 37 years. The high proportion of youths in the population has set in motion a high growth inertia for the coming generation, even if the fertility rate were to slow down to a normal replacement level. This is reinforced by entrenched socio-cultural stereotypes that favour large family sizes. Furthermore, early and universal marriages, coupled with a modern contraceptive prevalence rate of just 7%, high levels of unmet needs for family planning services, high school drop-out rates caused by teenage and unwanted pregnancies, a maternal mortality ratio of 857 and a growing problem of adolescent fertility and sexuality are a cocktail that could have far-reaching social and economic consequences for the country.

This survey was undertaken to provide benchmark information, which is essential for sound RHCS planning and for making administrative and policy decisions about the same. Three Outcome indicators in the reporting framework were assessed to obtain data for the following *country level indicators:*

(a) Percentage of SDPs offering at least three modern methods of contraceptives;
(b) Percentage of SDPs where five life-saving maternal/RH medicines from UNFPA list is available in all facilities providing delivery services, and
(c) Percentage of SDPs with 'no stock-outs' of contraceptives in the six months preceding the survey (April-September 2010).

The information will also be desirable for the implementation and co-ordination of family planning programming by helping to fill the critical dearth of reliable, high quality and timely data for programme monitoring and evaluation.

The results show that the healthcare delivery system is anchored on the primary healthcare, which accounts for 64.8 percent of all health facilities in Sierra Leone. At the core of this system are the district health services that are composed of a network of Peripheral Health Units (PHUs), the District Hospitals and the District Health Management Teams (DHMTs). PHUs are the first line of health services and are sub-classified into three levels. Health facilities are unevenly distributed in the country; Bo, Kenema, Port Loko and Bombali Districts and Western Area Urban (about one-third of the geographic sub-divisions of the country) account for 52.7 percent of all health facilities. About 54 percent of health centres are located in the urban areas where 37 % of the population lives. In addition, about half of the secondary level care facilities are in the city of Freetown alone.

Government of Sierra Leone owns and manages close to 75 percent of the health service delivery points in the country. Compared to other countries of sub-Saharan Africa, the private sector is underdeveloped and delivers services mainly in curative care for in-patients and out-patients on a fee-for-service basis. The sector operates under the authority of individual owners and/or boards of directors, mainly in urban areas where higher socio-economic households patronize them. The fact that a little over a third of the health facilities are located beyond 20 miles of their regular medical stores and the average distance is more than 60 miles explains the inherent problems of replenishing supplies in those locations. This situation undermines standards as well as the availability and accessibility of services provided. Qualitative perceptions from rural communities reveal that physical distance to health facilities presents a major access barrier to healthcare and allied services.

Family planning services are provided at 87 percent of the SDPs surveyed. Oral pills, male condoms and injectables are the most popular modern contraceptives provided to clients at the SDPs; each being available at about 75 percent or more of the facilities. The least popular modern contraceptive method is sterilization for males but this can be accessed at only three medical centres nationwide. The index of percentage of SDPs offering at least three types of modern contraceptives was 87.2 percent and there are very few SDPs that do not meet this criterion of three or more contraceptive products or services. This looks good but the availability was skewed in favour of urban localities and government-owned health facilities to the disadvantage of the more populous rural areas and privately-owned health centres. The most recurrent reasons why contraceptives were not available at the medical facilities at the time of the survey were either the absence of skilled staff to administer them (especially for IUDs, implants and sterilization for males and females), or because the commodity was out of stock or was not on offer at the health centre. Other reasons included low client demand and fear of side effects.

Availability of maternal and RH medicines was high, at 95.4 percent. With the exception of azithromycin and cefexime, all other maternal or RH medicines are available in over 60 percent of the health facilities. Magnesium sulphate, metronidazole and iron/folate are easily available at the health centres across the nation. Also, 75.7 percent of the health facilities have five essential life-saving maternal and reproductive health medicines. As with contraceptive commodities and services, Maternal and Child Health Posts (MCHPs) and secondary facilities have the highest proportions of all providers in the country. Azithromycin and especially benzathine penicillin and cefexime are not readily available at the health centres. A particular maternal or RH drug may only be unavailable at an SDP if the medication is out of stock or there has been no supply during the six months preceding the survey or if the medication is not on offer at the SDP. Given this scenario, it would appear that solving the problems of accessibility to life-saving maternal medicines may be simpler than that of barriers to the uptake of family planning commodities and services.

The main contraceptive items in stock at the time of the survey were condoms (male and female) and IUDs. In addition, secondary level care facilities (general hospitals) were the only category of healthcare providers that could boast of availability of all the contraceptive commodities and services. To a lesser extent, implants, oral pills and injectables were also generally available at the SDPs. Male and female sterilisations are services available mainly in secondary facilities (hospitals) and injectables were not available at CHPs, MCHPs and tertiary SDPs. Analysis of the incidence of 'no stock out' in the six months preceding the survey revealed that only 41.4 percent of health facilities experienced no stock-outs. With respect to contraceptive commodities, female and male condoms experience the highest periods of no 'stock outs', followed by IUDs. The least incidences of 'no stock outs' were recorded for female sterilisation and injectables. In general, the incidence of stock outs affected only a small proportion of SDPs that offer family planning services and commodities.

Western Urban Area (Freetown) and Bombali District experienced 'no stock out' in any contraceptive commodity or service in the preceding six months preceding the survey. This can be attributed to the fact that these two geographic subdivisions of the country were the model districts for UNFPA reproductive health interventions for the Country Programme (2007-2010). The respective SDPs of Princess Christian Maternity Hospital (P.C.M.H.) and Government Hospital Makeni are generally well resourced. UNFPA is also the single provider of contraceptive commodities to about 90-95 percent of health facilities (whether owned by government, private or NGO, etc.).

This exploratory study of reproductive health commodity security (RHCS) in Sierra Leone has thrown light on many issues that had hitherto either not been known or were taken for granted. The findings are an important starting point for better planning for RHCS in the country. In this regard, the following recommendations are made:

(a) Family planning should be repositioned by making it an integral part of primary healthcare and provision made for universal access by removing user fees on contraceptive commodities and services nationwide. This should be buttressed by intensive sensitisation using ingenious outreach methods that are culturally sensitive to the Sierra Leonean society.
(b) Further studies should be supported to investigate why the contraceptive prevalence rate is very low and how the uptake among couples and sexually active unmarried persons can be increased. In doing this, efforts should be made to reach populations in rural localities that are currently disadvantaged with respect to family planning services and deployment of trained health personnel for same.
(c) RHCS programming should ensure that all SDPs are offered at least three types of modern contraceptive and at least five life-saving maternal and RH medications at all times. All privately-owned health facilities should be encouraged to implement the RHCS programme and provided with the resources to do so.
(d) Strengthening of the health commodity distribution system from central district stores to peripheral PHUs, CHCs and MCHPs should be given more attention to increase commodity security nationwide.
(e) Given their stature in the SDP continuum, care should be taken to ensure that tertiary level care RH facilities are stocked with every type of contraceptive commodity and life-saving medicines at all times.

SECTION I: INTRODUCTION

1.1 National Context

Sierra Leone has a population of about 5.7 million with an annual growth rate of 1.8 percent and a doubling time of only 37 years. The population exhibits a youthful age structure with 42.1 percent under 15 years of age, 19.3 percent aged 15-24 years, 17.5 percent aged 25-34 years and just four percent is older than 64 years (census 2004). In 2008, the total fertility rate was 5.1[1] ; which is relatively high even by sub-Saharan standards. The amount of youths in the population sets into motion high growth inertia over the coming generation even if fertility were to be reduced to replacement level.

This is reinforced by entrenched socio-cultural stereotypes that favour large family sizes, and early[2] and universal marriages[3]. Given the current modern contraceptive prevalence rate of seven percent[4], high unmet need for family planning[5], high school drop-out rates due to teenage and unwanted pregnancies and a maternal mortality rate of 857[6], there are mounting problems of adolescent fertility and sexuality with far-reaching social and economic consequences on different communities.

There is a pressing need for obstetric care services because most health service delivery points (SDPs) lack almost everything, from adequate supplies of reproductive health (RH) commodities, appropriate equipment and human resource to basic requirement for diagnostic imaging facilities. Laboratory services, including safe blood transfusion services, electricity and water supply are equally unavailable in most SDPs. In early 2010, user fees were abolished for pregnant women, lactating mothers and children under the age of five years but the referral system is still very weak due to bad transport networks and inadequate means of communication. The health service delivery system also suffers from inadequate capacity to undertake planning, implementation and co-ordination of family planning as well as emergency obstetric and neonatal care. The number of trained midwives and skilled medical personnel capable of providing obstetric and neonatal care, especially in rural areas and at lower level health facilities, is inadequate. The result is a very low skilled birth attendance of only 42.4 percent nationwide and 24.6 percent for institutional deliveries[7].

Poverty levels are very high, at over 64 percent of the population. Women and the population of the rural areas are more likely to be poor, while the low status of women undermines efforts at attaining gender equity, equality and empowerment, and achievement of MDGs 2, 3, 4, 5 and 6. Cultural resistance to family planning in a society that is still patriarchal with low male involvement in reproductive health and rights issues presents a scenario that only makes for low contraceptive uptake and increased exposure of females in the reproductive ages to dangers associated with childbirth.

1.2 Rationale and Objectives of the Study

Encouraged by the great strides made to date by the Government of Sierra Leone to recognize the importance of reproductive health commodity security (RHCS) in the achievement of the MDGs, and to ensure quality reproductive health and well-being for its population, UNFPA signed a Memorandum of Understanding with the Government in 2009 to support RHCS in Sierra Leone for a period of five years. The RHCS survey is part of UNFPA global programme on RHCS technical and financial support given to the government to ensure that all individuals can obtain and use affordable, quality reproductive health commodities whenever they need them. As Sierra Leone is part of 11 *Stream One Countries* worldwide benefiting from this initiative[9], the survey was undertaken to provide benchmark data and information, which are essential for sound RHCS planning and for making administrative and policy decisions about the same. The information will also be desirable for the implementation and coordination of family planning programming by helping to fill the critical dearth of reliable, high quality

[1] DHS 2008
[2] Age at first marriage is typically less than 18 years for females.
[3] Over 90 percent of persons more than 20 years of age have ever been married.
[4] DHS 2008. Also, only 10.2 percent of all women were reported as using any modern method of contraception.
[5] Until recently, service delivery points (SDPs) in the country suffered from frequent 'stock-outs' of reproductive and child health commodities.
[6] Sierra Leone has about the highest maternal mortality rate in the world.
[7] DHS 2008; Please note that this percentage includes the services of MCH Aides who are not skilled personnel by WHO standards
[8] Number of persons living on less than US$1.5 per day
[9] The other ten countries are Burkina Faso, Laos PDR, Mongolia, Niger, Ethiopia, Madagascar, Mozambique, Haiti, Mali and Nicaragua.

and timely data for programme monitoring and evaluation.

Since the inception of the Global Programme on RHCS (GPRHCS), Stream One Countries have been reporting the availability of contraceptives and essential reproductive health medicines through the GPRHCS performance monitoring country questionnaire. Although the most recent country reports actually provide the basis for aggregating relevant regional and global level indicators, there has always been a compelling need to conduct annual surveys that would generate the following three outcome indicators:

(a) Number of Stream One Countries with SDPs of at least three (3) modern methods of contraceptives,
(b) Number of Stream One Countries with SDPs where five (5) life-saving maternal/RH medicines from UNFPA list are available in all facilities providing delivery services and
(c) Number of Stream One Countries with SDPs with 'no stock outs' of contraceptives within the six months preceding the survey.

These indices would facilitate international comparability of the collected data and enable cross-cultural analysis that would enhance the repositioning of family planning and the quality of emergency obstetric care in efforts aimed at meeting the health MDGs.

1.3 Survey Organization and Management

The conduct and direction of the RHCS study received oversight from the Ministry of Health and Sanitation (MoHS), in collaboration with UNFPA and other stakeholders, in the most expeditious manner. To ensure that the survey received very high quality administrative and technical inputs, there was a Steering Committee with the Reproductive Health Division (RHD) of MoHS and the Parliamentary Committee on Health and Sanitation as Joint Chairs. A Technical Committee jointly chaired by the Department of Planning and Information (DPI) of MoHS and Statistics Sierra Leone (SSL) contributed critical technical expertise at various stages of the conduct of the survey. The exercise was managed by the RHCS Advisor of UNFPA Sierra Leone.

At the practical level, UNFPA provided a Consultant that led the investigation. He was responsible for all technical procedures from survey inception to report writing. In terms of field work, the Consultant was assisted by a Research Assistant and three Field Supervisors: one each from RHD, DPI and SSL. The Consultant supervised the Field Supervisors who in turn supervised the Enumerators. The country was divided into four supervisory zones as follows:

(a) ZONE ONE: Western Rural and Urban Areas;
(b) ZONE TWO: Port Loko, Kambia, Bombali and Koinadugu Districts;
(c) ZONE THREE: Bonthe, Moyamba, Tonkolili and Kono Districts, and
(d) ZONE FOUR: Bo, Kenema, Pujehun and Kailahun Districts.

Each Field Supervisor was in-charge of four Enumerators in each of Zones Two, Three and Four, and two Enumerators in the Western Area.

1.4 Methodology and Limitations

1.4.1 Survey Design and Sampling of Facilities

The implementation of the GPRHCS was assessed through indicators outlined in the Monitoring and Evaluation Framework. Three Outcome indicators in the framework were assessed to obtain data for the following *country level indicators*:

(d) Percentage of SDPs offering at least three modern methods of contraceptives;
(e) Percentage of SDPs where five life-saving maternal/RH medicines from UNFPA list is available in all facilities providing delivery services, and
(f) Percentage of SDPs with 'no stock-outs' of contraceptives in the six months preceding the survey (April-September 2010).

The survey considered the following broad categories of SDPs that provide modern methods of contraceptives and maternal/RH services as strata:

a) Primary level care SDPs/facilities[10] (or equivalent to the country context);
b) Secondary level care SDPs/facilities/hospitals (or equivalent), and
c) Tertiary level care SDPs/facilities/hospitals (or equivalent).

[10] In this study of Sierra Leone, the primary level care facilities were further subdivided into Community Health Centre (CHC), Community Health Post (CHP) and Maternal and Child Health Post (MCHP).

In addition to the distribution of these SDPs in the administrative units of the country, the type of services they provide (some may provide one and others both - modern methods of contraceptives and maternal/RH services) was relevant to the study. The aim of this procedure was to provide a standardized framework for all the GPRHCS Stream One Countries for the conduct of the survey.

1.4.2 Sampling Frame

The MOHS provided a list of all SDPs that offer family planning and maternal health services in each of the districts in the country. This list served as the frame for the selection of samples per administrative subdivision of the country. It had problems of completeness, classification, sequencing and double entries that needed to be resolved before using it to select the samples.

(a) Completeness

In order to give each SDP an equal probability of selection, the sampling frame was checked manually, district by district, to see that all SDPs have been included. Direct telephone calls to District Pharmacists were made to confirm the entries in the list for each district. In the process, new facilities were added to the original MOHS list based on the reality on the ground.

(b) Classification

All individual medical facilities in the updated list were classified into Community Health Centre (CHC), Community Health Post (CHP) and Maternal and Child Health Post (MCHP).

(c) Order and Double Entry

For each district and in each category, the SDPs were sorted by alphabetical order and the listing arranged in an ascending numerical order. It was then easy to weed out repetitions and to clean the database.

1.4.3 Use of Sampling Formula to Obtain Sample Size

Considering the types of the SDPs (primary, secondary and tertiary or equivalent) as the main attributes, therefore, the total sample should contain a minimal number of each type of facility to support reasonable estimates of the population parameters. It is based on this that the following formula was used:

$$n = \frac{Z^2 p(1-p)}{d^2}$$

Where n = minimal sample size for each domain
Z = Z score that corresponds to a confidence interval
p = the proportion of the attribute (type of SDP) expressed in decimal
d = percent confidence level in decimal

This proposal was made because facility based surveys often take into consideration the categories of health SDPs (which may vary from country to country) in the selection of an appropriate sample size. In some instances, facility data are linked with data on clients and service providers, which affect the sample size and the manner in which it is chosen. The study focused on the type of facilities as 'standalones' and, therefore, did not collect data on staff, clients or the population. The formula was used to obtain the minimal sample size for the proportions of each category of SDPs under the assumptions of normal distribution and, hence, lends the data to comparisons between populations. The formula adopts an approach that gives tertiary and secondary facilities a higher probability of inclusion in the survey because of their small number in the sample frame.

1.4.4 Sample Selection

The sample selection procedure is spelt out below:

Table 1: Types of Service Delivery Points Providing Modern Methods of Contraception in Sierra Leone by Administrative Unit

Administrative Unit: Province and District	Types of Service Delivery Points/facilities/ hospitals (or equivalent)			
	Tertiary level care	Secondary level care	Primary Level Care	Total
EASTERN				
Kailahun	0	2	79	81
Kenema	1	1	128	130
Kono	0	1	83	84
NORTHERN				
Bombali	1	4	101	106
Kambia	0	1	64	65
Koinadugu	0	1	70	71
Port Loko	0	3	113	116
Tonkolili	0	1	95	96
SOUTHERN				
Bo	1	6	125	132
Bonthe	0	2	54	56
Moyamba	0	1	96	97
Pujehun	0	1	65	66
WESTERN				
Rural	0	0	44	44
Urban	2	18	85	105
TOTAL	**5**	**42**	**1,202**	**1,249**

Table 2: Relative Proportion of Categories of SDPs in Sierra Leone

Parameter	Types of Service Delivery Points/facilities/ hospitals (or equivalent)			
	Tertiary level care	Secondary level care	Primary Level Care	Total
Number of SDPs	5	42	1,202	1,249
Relative Proportion	0.004	0.034	0.962	1.000

1.4.4.1.2 Application of the formula above to obtain the minimal sample size for each Type of SDP

By proposing the use of a confidence interval, the formula provides a range of values where a given true population parameter is likely to be. The range of values is also determined by the confidence limit or the precision of the estimated value. The confidence interval was set at Z-score = 95 percent and five (5) percent confidence limit based on the recommendation of CSB that all GPRHCS Stream 1 countries should carry out the sampling procedure based on Z-value for 95 percent confidence level and at 5 percent confidence limit.

Thus, the minimum sample size for tertiary level care SDPs/facilities/hospitals (or equivalent) at the 95% confidence interval and 5% confidence limit is as follows:

$$n = \frac{Z^2 p(1-p)}{D^2} \qquad n = \frac{(1.96)^2 \text{ x } (0.004)(0.996)}{(0.05)^2}$$

$$n = \frac{3.8416 \text{ x } .004}{0.0025} \qquad n = 6.15$$

Also, the minimum sample size for secondary level care SDPs/facilities/hospitals (or equivalent) at the 95% confidence interval and 5% confidence limit is as follows:

$$n = \frac{Z^2 p(1-p)}{D^2} \qquad n = \frac{(1.96)^2 \text{ x } (0.034)(0.966)}{(0.05)^2}$$

$$n = \frac{3.8416 \text{ x } 0.033}{0.0025} \qquad n = 50.71$$

Moreover, the minimum sample size for primary level care SDPs/facilities/hospitals (or equivalent) at the 95% confidence interval and 5% confidence limit is as follows:

$$n = \frac{Z^2 p(1-p)}{D^2} \qquad n = \frac{(1.96)^2 \text{ x } (0.962)(0.038)}{(0.05)^2}$$

$$n = \frac{3.8416 \text{ x } 0.0366}{0.0025} \qquad n = 56.24$$

These are shown against the respective population sizes in each stratum in the table below:

Table 3: Minimal Sample Sizes for Sierra Leone Based on 95 Percent Confidence Interval (Z-score = 1.96) and 5 Percent Confidence Limit against Number of SDPs Per Stratum

Parameter	Types of Service Delivery Points/facilities/ hospitals (or equivalent)			
	Tertiary level care	Secondary level care	Primary Level Care	Total
Minimum sample size based on 95% confidence interval				
(Z = 1.96) and 5% confidence limit (d = 0.05)	6	51	56	113
Number of SDPs	5	42	1,202	1,249

1.4.4.1.3 Correction for Abnormal-oversized Samples

In Table 3, the minimal sample sizes obtained for tertiary and secondary levels of SDPs are greater than the number of SDPs. As a correction of these abnormal oversized samples, the whole population of the category under consideration was included in the sample. This abnormality occurred because the sizes of the strata populations were too small for the assumptions of normal distribution of the frame population to prevail using the 95 percent confidence interval and 5 percent confidence limit. The abnormal sample size was, therefore, corrected by replacing the oversized samples by the population sizes shown in Table 4. The total sample size for all categories was also recalculated to reflect this correction.

This means that for Sierra Leone:

- All the 5 tertiary level care SDPs/facilities/hospitals (or equivalent) were included in the sample;
- All the 42 secondary level care SDPs/facilities/hospitals (or equivalent) were included in the sample, and
- 56 of the 1,202 primary level care SDPs/facilities (or equivalent to country context) were included in the sample.

Thus, a total of 103 (8.25 percent) SDPs were to be sampled from the population of 1,146 SDPs nationwide.

Table 4: Corrected Minimal Sample Sizes for Sierra Leone Based on the 95 Percent Confidence Interval and 5 Percent Confidence Limit.

Parameter	Types of Service Delivery Points/facilities/ hospitals (or equivalent)			
	Tertiary level care	Secondary level care	Primary Level Care	Total
Minimum sample size based on 95% confidence interval (Z = 1.96) and 5% confidence limit (d = 0.05)	5	42	56	103

1.4.4.1.4 Distribution of Sample Sizes for Administrative Units

The total sample size for each category of SDPs had to be distributed among the administrative units according to their share of a particular category of SDP (Table 5). This requires the calculation of the relative proportions for each domain.

Table 5: Proportion of Categories of Service Delivery Points by Administrative Unit

Administrative Unit: Province and District	Types of SDPs/facilities/ hospitals (or equivalent)			
	Tertiary level care	Secondary level care	Primary Level Care	Total
EASTERN				
Kailahun	0.00	0.05	0.07	0.06
Kenema	0.20	0.02	0.11	0.10
Kono	0.00	0.02	0.07	0.07
NORTHERN				
Bombali	0.20	0.10	0.08	0.08
Kambia	0.00	0.02	0.05	0.05
Koinadugu	0.00	0.02	0.06	0.06
Port Loko	0.00	0.07	0.09	0.09
Tonkolili	0.00	0.02	0.08	0.08

Table 5: Proportion of Categories of Service Delivery Points by Administrative Unit (continued)

Administrative Unit: Province and District	Types of SDPs/facilities/ hospitals (or equivalent)			
	Tertiary level care	Secondary level care	Primary Level Care	Total
SOUTHERN				
Bo	0.20	0.14	0.10	0.11
Bonthe	0.00	0.05	0.04	0.04
Moyamba	0.00	0.02	0.08	0.08
Pujehun	0.00	0.02	0.05	0.05
WESTERN				
Rural	0.00	0.00	0.04	0.04
Urban	0.40	0.43	0.07	0.08
TOTAL	**1.00**	**1.00**	**1.00**	**1.00**

For example, the proportion of tertiary level hospitals in Kenema District = Number of tertiary level care SDPs/facilities/hospitals (or equivalent) in Kenema District ÷ Total of tertiary level care SDPs/facilities/hospitals (or equivalent) = 1 ÷ 5 = 0.20. (This indicates that 20.00 percent of all 'Tertiary level care SDPs/facilities/hospitals (or equivalent)' is located in Kenema District).

1.4.4.1.5 Distribution of Sample Sizes for Administrative Units

The samples for each category of SDP are distributed among the various administrative regions by applying the proportions in Table 5 to the minimal sample sizes for each type of SDP indicated in Table 4. The results are presented in Table 6, which presents the minimal sample sizes for each type of SDP by administrative unit in Sierra Leone (under Z-score for 95 percent confidence interval and 5 percent confidence limit). The outcome of the procedure leads to the fact that all the tertiary and secondary levels of SDPs/ facilities/hospitals (or equivalent) should be included in the sample and surveyed. Likewise, four (4) of the 55 Primary Level SDPs, etc. (or equivalent to country context) in Kailahun District should be systematically selected; and five (5) out of the 55 Primary Level Care SDPs/facilities/hospitals (or equivalent to country context) in Port Loko District should be systematically selected and included in the sample of SDPs.

Table 6: Distribution of Minimal Sample Sizes for Each Category of SDP in Sierra Leone $Z_{(95\%\ 0.05)}$

Administrative Unit: Province and District	Types of SDPs/facilities/ hospitals (or equivalent)			
	Tertiary level care	Secondary level care	Primary Level Care	Total
EASTERN				
Kailahun	0	2	4	6
Kenema	1	1	6	8
Kono	0	1	4	5
NORTHERN				
Bombali	1	4	5	10
Kambia	0	1	3	4
Koinadugu	0	1	3	4
Port Loko	0	3	5	8
Tonkolili	0	1	4	5
SOUTHERN				
Bo	1	6	6	13
Bonthe	0	2	3	5
Moyamba	0	1	4	5
Pujehun	0	1	3	4
WESTERN				
Rural	0	0	2	2
Urban	2	18	4	24
TOTAL	**5**	**42**	**56**	**103**

1.4.5 Factor to Inflate Sample Size

1.4.5.1 Application of Inflation Factor of 10 Percent

During the pretest exercise, it was revealed that some of the facilities are no longer functional. Consequently, allowance was given to compensate for possible non-response or non-existence of SDPs that provide a particular service (contraceptive or delivery) and the sample sizes for administrative units were slightly inflated by a factor of 10 percent. (This, however, affected only the primary level of healthcare since all the facilities at the secondary and tertiary levels were to be completely enumerated). The resulting sample spread is displayed in Table 7 below.

Table 7: Final Distribution of Minimal Sample Sizes by Category of SDP in Sierra Leone $Z_{(95\%\ 0.05)}$

Administrative Unit: Province and District	Types of SDPs/facilities/hospitals (or equivalent)			
	Tertiary Level Care	Secondary Level Care	Primary Level Care	Total
EASTERN				
Kailahun	0	2	4	6
Kenema	1	1	7	9
Kono	0	1	4	5
NORTHERN				
Bombali	1	4	6	11
Kambia	0	1	3	4
Koinadugu	0	1	3	4
Port Loko	0	3	6	9
Tonkolili	0	1	4	5
SOUTHERN				
Bo	1	6	7	14
Bonthe	0	2	3	5
Moyamba	0	1	4	5
Pujehun	0	1	3	4
WESTERN				
Rural	0	0	2	2
Urban	2	18	4	24
TOTAL	**5**	**42**	**60**	**107**

1.4.6 Final Step: Systematic Random Sampling of Types of SDPS for Each Administrative Unit

With the available list of SDPs for each domain at hand, the final step was to choose the specific SDPs to be included in the study. The following steps were followed for each domain in the population:

1. The facilities were listed in alphabetical order and not with regards to any other characteristic;
2. A Sampling Interval (i) was determined for the primary level domain for which sampling was required. This was done for each district by dividing the total number of facilities by the sample size:

$$i = N / n$$

Where: i = sampling interval for the domain,
N = number of SDPs in the district and
n = district sample size;

This procedure is demonstrated in Table 8.

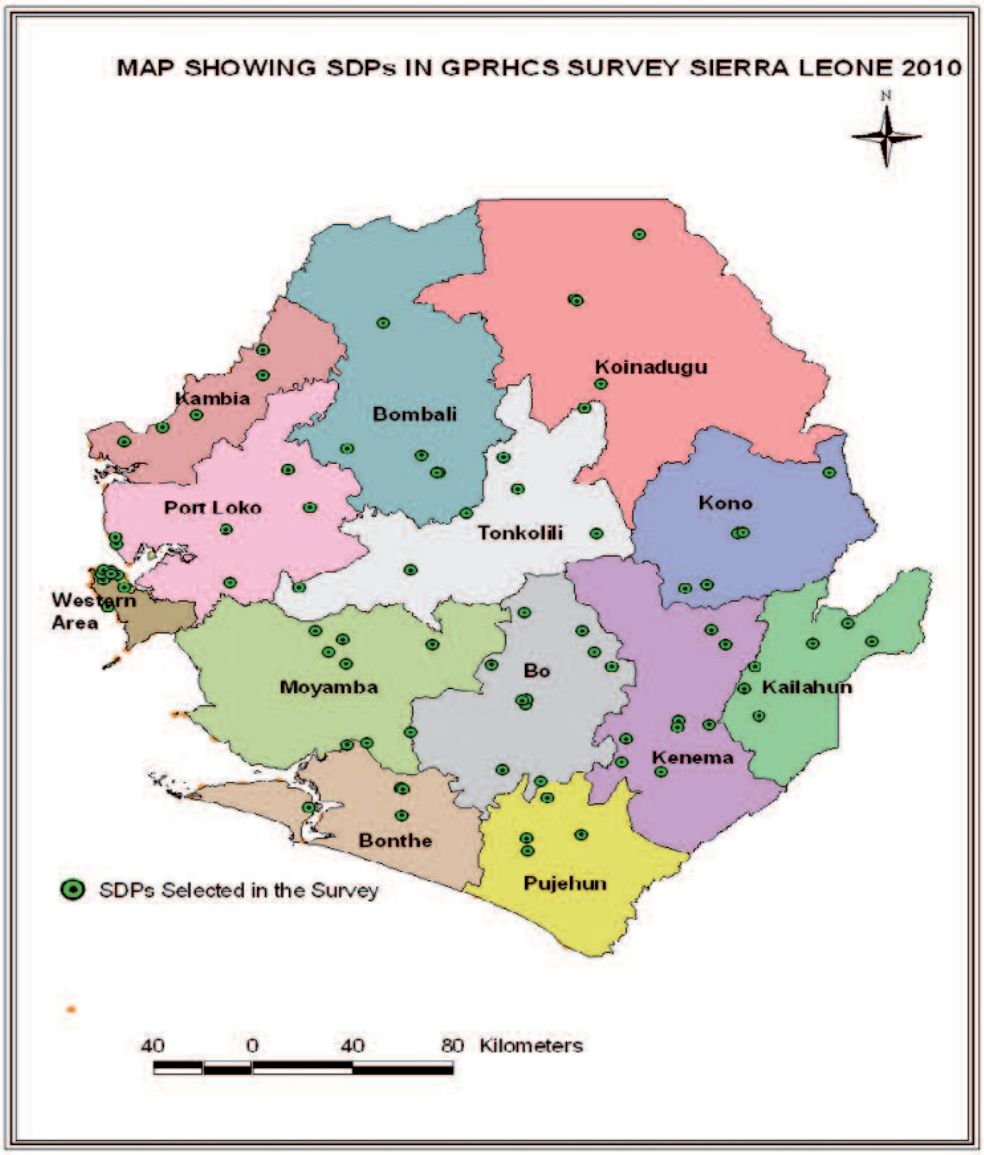
Table 8: Sampling Intervals for the Respective Geographic Subdivisions of Sierra Leone $Z_{(95\%\ 0.05)}$

Province/District	Sample (n)	Population (N)	i = N/n
EASTERN			
Kailahun	4	79	20
Kenema	7	128	18
Kono	4	83	21
NORTHERN			
Bombali	6	101	17
Kambia	3	64	21
Koinadugu	3	70	23
Port Loko	6	113	19
Tonkolili	4	95	24
SOUTHERN			
Bo	7	125	18
Bonthe	3	54	18
Moyamba	4	96	24
Pujehun	3	65	22
WESTERN			
Rural	2	44	22
Urban	4	85	21
TOTAL	**60**	**1,202**	**20**

3. A starting point (K) was determined by randomly selecting a number between 1 and i (the sample interval). K was the first SPD in the domain to be chosen;
4. Successive SDPs were selected for inclusion in the sample by moving at the interval K+i; K+2i; K+3i; K+4i; K+5i; etc., until the required sample size from the domain was chosen.

The aerial spread of the resultant sample selection is demonstrated in Figure 1 below. The SDPs are fairly evenly scattered across the country. There are a few bunches of selected facilities but these are mainly in urban and peri-urban areas. They are as a result of the total selection of all health centres in tertiary and secondary categories because the populations in these categories were below the minimum number to be selected as dictated by the calculating formula.

Figure 1: Map Showing SDPs in GPRHCS Survey - Sierra Leone 2010



1.4.7 Survey Instrument

The survey instrument is a semi-structured questionnaire that is divided into four sections in the form of a tabular schedule. The first schedule deals with the location and distance of the SDPs. The second schedule collects information on the type of SDP and services provided. The third schedule solicits information on modern contraceptive methods provided at the SDP. The fourth schedule is about availability of maternal and reproductive health medicines. The last schedule is about whether stocks of contraceptives are available at the time of the survey and duration of stock-outs at any given SDP. In schedules three to five, interviewers verify the availability or otherwise of a drug or contraceptive by physical verification of stocks. Where stocks are not available, the reason for the non-availability of an item is solicited and recorded accordingly.

1.4.8 Data Collection

Field data collection was done between 16th and 28th October 2010. The field crew were divided into four as explained in Section 1.3. Given the importance of primary level SDPs in the country (Section 2.1.1), data collection took into account disaggregation of this level of

caregivers into Community Health Clinics (CHC), Community Health Posts (CHP) and Maternal and Child Health Posts (MCHP).
Poor accessibility of some areas due to bad roads and non-availability of some of the senior officers-in-charge at the SDPs led to a few delays in fieldwork. The use of motorbikes for the enumerators not only reduced cost of transport fare, it also resolved some of the accessibility problems and enhanced the pace of completion of the data collection exercise.

1.4.9 Data Analysis and Presentation

For the analysis to continue the open-ended questions were coded and the spread sheet and dictionary for data entry prepared in CSEntry MFC Application of CSPro. The data were exported to SPSS using CSExport MFC Application of CSPro for editing and analysis. Preliminary frequencies and percentage distributions for all variables were run and checked to determine their accuracy and acceptability. The production of final tables was done using simple programming as allowable using the List of Generic Tables circulated by Commodity Security Branch (CSB).
The analysis was enhanced in part by the use of figures. These include maps of the geographic locations of the facilities in each region and tables and diagrams indicating the SDPs offering at least three types of contraceptives or five types of maternal or reproductive health medicines to further illustrate the findings of the research.

1.4.10 Limitations of the Survey

One limitation of the study is that it collected information on the SDPs as standalone units with no reference to the kind, number and characteristics of the catchment population that it serves. With this design, information about the clients came into the study only as a by-product of the interviewing situation. Hence, it may not be of much relevance to policy formulation though it can provide a good basis for forecasting of quantities of drugs and contraceptive commodities to be stocked. The second limitation is that being an exploratory study, there was no pre-existing frame population from which sampling of facilities could be done. Reproductive health commodity security (RHCS), as a concept, is relatively new to Sierra Leone and individual facilities may not have the culture of keeping information appertaining to it.

1.5 Outline of the Report

The main body of the report presents the findings of the survey in three sections, which are further divided into six parts; based on the nature of the study and topics addressed in the questionnaire. Section One is the introduction that sets the context of the study. It provides background information on the country; the rationale and objectives of the survey; research methodology including sampling procedure, questionnaire, fieldwork/data collection and data analysis; and, the limitations of the study.
The second section deals with the key findings of the survey and is subdivided into four parts. The first part is a presentation of general information on health facilities in Sierra Leone. It discusses the classification of facilities, provides information on their geographic location, management and distances between SDPs, and sources of supplies of contraceptive commodities and reproductive health medicines. Part Two of Section Two provides information on modern contraceptives offered by the facilities. It examines national and sub-national level variations with respect to the various types/categories of facilities in the country. It further discusses the reasons why three modern methods of contraceptives are not provided in some facilities. It also highlights peculiar reasons related to specific methods of contraception.
The third part is on the availability of maternal RH medicines with a special focus on the national and sub-national aspects. The discussion that follows captures the essence of the indicator (availability of the five essential life-saving medicines) in the various types/categories of SDPs in the country. The reasons why the medicines are not available in the health facilities are also outlined; bringing out the sub-national dimension and the peculiarity of these reasons to specific SDPs.
The last part of Section Two presents information on the incidence of 'no stock out' of modern contraceptives, bearing in mind that 'no stock out' is understood as *a situation in which a family service delivery facility/point in the country did not run out of supplies of any one or more of the modern methods of contraceptives at any point in time over the last/past six months and therefore had supplies on hand to serve clients at all times*[11] . The discus-

[11] Annotated Outline, Survey on Availability of Modern Contraceptives and Essential Life Saving Maternal/RH Medicines in Service Delivery Points in GPRHCS Stream 1 Countries, Commodity Security Branch, Technical Division, UNFPA

sion focuses on the occurrence of 'no stock out' in last six months as well as on the occurrence of 'no stock out' on the day/moment of the survey. Furthermore, the occurrence of specific product 'no stock out' for each contraceptive method is examined and the reasons why the stock outs occurred are analysed.

In Section Three, the study concludes with a summary of the key findings – which lead the list of recommendations presented. It is important to note that the recommendations reflect on each of the three indicators that are the raison d'etre of the research.

SECTION II: SURVEY FINDINGS

2.1 General Information on the Facilities

2.1.1 Classification of Health Facilities [12]

The organization of the health service delivery system is based on the primary health care (PHC) concept, which began in the 1980s. The public health delivery system has three tiers: (a) peripheral health units - community health centres (CHC), community health posts (CHP), and maternal and child health posts (MCHP) - for first line primary health care; (b) district hospitals for secondary care; and (c) regional/national hospitals for tertiary care. **This classification was followed in the study and the resultant sample sizes are shown in Table 9.** The primary health delivery system accounts for 64.8 percent of all facilities in the sample; compared with secondary and tertiary level care facilities with 31.5 and 3.7 percent respectively.

The core component of primary health care are the district health services which are made up of a network of Peripheral Health Units (PHUs), the District Hospitals and the District Health Management Teams (DHMTs). The PHUs are the first line health service providers and are sub-classified into three levels. The Maternal and Child Health Posts (MCHPs) are situated in small urban and peri-urban centres and at the village level for populations of less than 5,000. These MCHPs account for about a third of the entire sample (Table 9). Their staffs are mainly trained MCH Aides who provide a host of services: antenatal care, supervised deliveries, postnatal care, family planning, growth monitoring and promotion for under-five children, immunization, health education, management of minor ailments and referral of cases to the next level health facilities. The MCH Aides are supported by community health workers (TBAs, Community Volunteers, etc).

Table 9: Classification of Health Facilities

	Class of SDP	Frequency	Percent
	MCHP	35	32.4
	CHP	16	14.8
	CHC	19	17.6
	Secondary level care SDPs/facilities/hospitals	34	31.5
	Tertiary level care SDPs/facilities/hospitals	4	3.7
	Total	**108**	**100.0**

Community Health Posts (CHPs), which represent about 15 percent of the sample, are mainly in small towns with populations between 5,000 and 10,000 and are staffed by State Enrolled Community Health Nurses (SECHNs) and MCH Aides. They provide the same types of services that are provided at the MCHPs but they also take on the prevention and control of communicable diseases and rehabilitation. They refer more complicated cases to the Community Health Centres (CHCs), which are located within the chiefdoms, usually covering a population ranging from 10,000 to 20,000 and staffed with a community health officer (CHO), SECHN, MCH Aides, an Epidemiological Disease Control Assistant and an Environmental Health Assistant. They provide all the services available at the CHP level in addition to environmental sanitation and supervise the CHPs and MCHPs within the chiefdom. About 18 percent of the sample is CHCs. Just under a third (31.5 percent) of the sample is composed of District Hospitals, which are a secondary level facility providing backstopping for the PHUs. They provide services such as outpatient services for referred cases from PHUs and the population living within its im-

[12] The account in this section draws on: Government of Sierra Leone – National Health Sector Strategic Plan (2010-2015), Ministry of Health and Sanitation, Freetown; November 2009: p.5.

mediate environs, in-patient and diagnostic services, management of accidents and emergencies, and technical support to PHUs. Four percent of the samples are the tertiary level care facilities. These are top-level referral health units which also function as Teaching Hospitals[13].

2.1.2 Geographic Distribution of Facilities

Of the 108 SDPs in the sample, about a third are in the Northern Province, just over a quarter are in the Southern Province, and the Eastern Province and Western Area each hosts about a fifth, (Table 10). According to distribution by district, Bo, Kenema, Port Loko and Bombali Districts and Western Area Urban (about one-third of the geographic subdivisions of the country) account for 52.7 percent of all health facilities. In addition, the rural-urban distribution ratio is 53.7 and 46.3 respectively. The urban bias in the distribution is reinforced by a tendency to locate service delivery points in settlements that are relatively better connected to road networks. Even among urban localities, there is a high level of skewness in the geographic distribution of SDPs. For example, Freetown (Western Urban) alone accounts for over half of the secondary health facilities in Sierra Leone. Thus, the distribution of SDPs in Sierra Leone is very uneven. This conclusion confirms the assertion in the National Health Sector Strategic Plan 2010-2015 that "… existing functional health facilities (in Sierra Leone) are inadequate and inequitably distributed nationally"[14] .

Table 10: Distribution of SDPs by Province and District

Province/District		Frequency	Percent
EASTERN		**21**	**19.5**
	Kailahun	6	5.6
	Kenema	9	8.3
	Kono	6	5.6
NORTHERN		**35**	**32.4**
	Bombali	8	7.4
	Kambia	5	4.6
	Koinadugu	6	5.6
	Port Loko	9	8.3
	Tonkolili	7	6.5
SOUTHERN		**29**	**26.9**
	Bo	12	11.1
	Bonthe	6	5.6
	Moyamba	6	5.6
	Pujehun	5	4.6
WESTERN		**23**	**21.3**
	Western Rural	4	3.7
	Western Urban	19	17.6
	Total	**108**	**100.0**

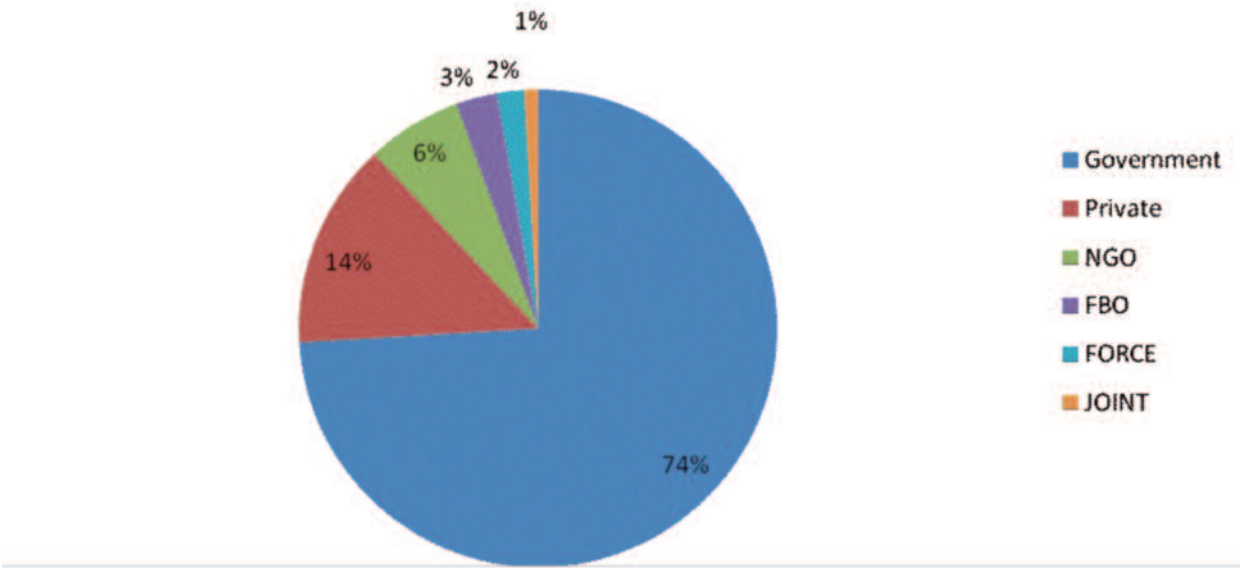
2.1.3 Management of Facilities

As regards the management of health facilities, Figure 2 shows that the health service delivery is undertaken by a plethora of providers. Government of Sierra Leone accounts for close to three-quarters of the management of all health SDPs. There are also private-for-profit (14 percent), private-non-profit (7 percent), confessional mis-

[13] Please note that Connaught Hospital, Freetown, did not qualify for inclusion in the study because it is not a facility that performs reproductive health service delivery functions.
[14] Op. cit., p.8.

sions (3 percent) and other players including undocumented and informal traditional medical practices. Government facilities are under the respective District Health Management Teams (DHMTs), which are responsible for the overall planning, implementation, coordination, monitoring and evaluation of the district health services under the leadership of the District Medical Officers (DMOs). The DHMT also includes the Medical Officer in-charge-of the district hospital and ex-officio members of various programs, projects and units [15].

Figure 2: Distribution of SDPs by Type of Management



Compared to other sub-Saharan Africa countries, the private sector is underdeveloped and delivers services mainly in curative care for in-patients and out-patients on a fee-for-service basis. The sector operates under the authority of individual owners and/or boards of directors, mainly in urban areas where higher socio-economic households patronize them. Traditional healers and Traditional Birth Attendants (TBAs) are active mainly in the urban slums, peri-urban and rural areas [16] .

2.1.4 Distance of Service Delivery Points from Source of Supplies

Distance is an important factor that determines accessibility to health services in Sierra Leone. The study examines the distance between the location of the health centre and the nearest warehouse where health supplies[17] are stored and from which the particular SDP receives its regular supplies . Data in Table 11 reveals that only one third of the

SDPs are situated within a mile of the warehouses that regularly supply them. Health facilities located within less than 10 miles of their supplies represent about half of the sample. The fact that 38.3 percent of the SDPs are located beyond 20 miles of their regular medical stores and the average distance is more than 60 miles explains the inherent problems of replenishing supplies in those locations. In some of these locations (e.g., parts of Kailahun, Koinadugu, Pujehun and Bonthe districts), road networks are virtually 'unmotorable' during the rainy season. This situation undermines standards, availability and accessibility of services provided. Qualitative perceptions from rural communities reveal that physical distance to health facilities presents a major access barrier to healthcare and allied services [18].

[15] Ib. id., p.5
[16] Ib. id., p.4
[17] The inhabitants in the catchment area served by the SDP did not come into the study.
[18] See, for e.g., Government of Sierra Leone – National Health Sector Strategic Plan (2010-2015), Ministry of Health and Sanitation, Freetown; November 2009: p.20.

Table 11: Distribution of SDPs by Distance from Nearest Warehouse

Distance from Nearest Warehouse		Frequency	Percent
	0-1	36	33.6
	2-4	9	8.4
	5-9	8	7.5
	10-14	5	4.7
	15-19	8	7.5
	20-29	11	10.3
	30-39	17	15.9
	40+	13	12.1
	Total	**107***	**100.0**

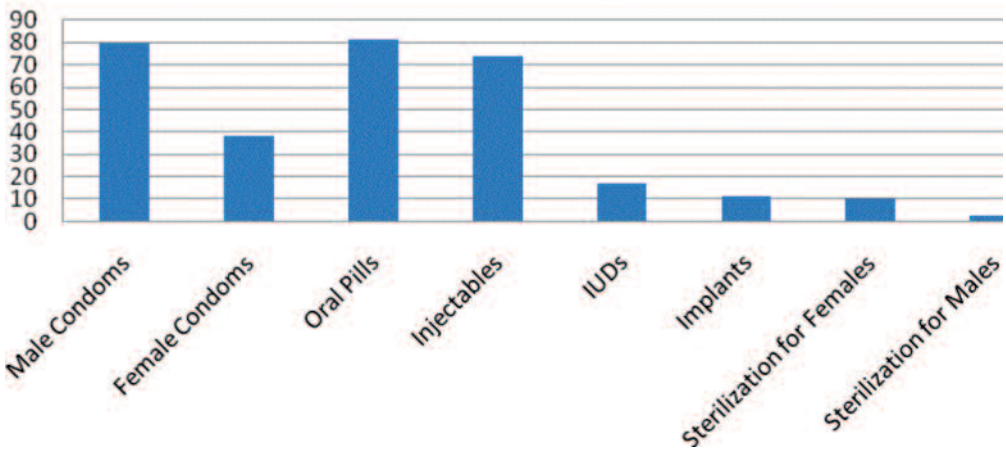
*Missing value = 1

2.2 Modern Contraceptives Offered by Facilities

2.2.1 Contraceptives Offered, by Types of Facilities

Family planning services are generally provided at 94 of the 108 SDPs (87 percent) surveyed (Figure 3). Oral pills, male condoms and injectables are the most popular modern contraceptives provided to clients at the SDPs; each being available at about 75 percent or more of the facilities. The least popular modern contraceptive method is sterilization for males, which can be accessed at only three medical centres (PCMH and Government Hospitals in Makeni and Kailahun) nationwide.

Figure 3: Percentage Distribution of General Availability of Modern Contraceptives



The availability of modern contraceptives is disaggregated by the proportion of each category of RH service delivery facility (SDP) as shown in Table 12. Except for oral pills, implants and sterilization for females and males, which are offered by about one-twelfth of secondary level, care SDPs, the bulk of the contraceptives are likely to be available at the PHUs. The MCHP are the most important centres for uptake of condoms and injectables. It is not clear why oral pills and implants are not available at tertiary level care RH facilities considering their stature in the SDP continuum.

Table 12: Percentage Distribution of SDPs Offering Modern Contraceptives by Type of Method.

CONTRACEPTIVE METHOD	Primary Level Care SDPs			Secondary Level Care SDPs	Tertiary Level Care SDPs
	CHC	CHP	MCHP		
MALE CONDOMS	19.1	14.9	27.7	24.5	4.3
FEMALE CONDOMS	17	14.9	31.9	23.4	4.3
ORAL PILLS	2.1	0	0	8.5	0
INJECTABLES	13.8	10.6	26.5	19.1	4.3
IUDs	6.4	8.5	9.5	14.9	3.2
IMPLANTS	0	0	0	2.1	0
FEMALE STERILIZATION	0	0	0	9.5	1.1
MALE STERILIZATION	2.1	0	0	8.5	0

2.2.2 Facilities Offering at Least Three Types of Modern Contraceptives

A crucial indicator for the GPRHCS study is the percentage distribution of service delivery points that offer at least three modern contraceptives in a given geographic area. According to this index, 87.2 percent of the health facilities that offer family planning services have at least three modern contraceptives for client uptake. The highest provider is the CHCs (28.7 percent), closely followed by secondary level SDPs (Table 13). The concentration of these services within the PHUs reflects the government's avowed commitment to integrate family planning services into primary healthcare.

Table 13: Percentage Distribution of SDPs Offering at Least Three Modern Contraceptive Methods by Type of Facility

	Type of Facility	Percent Offering at Least Three Modern Contraceptive Methods	Percent Not Offering at Least Three Modern Contraceptive Methods	Number of Service Delivery Points
	MCHP	17.0	2.1	18
	CHP	14.9	1.1	15
	CHC	28.7	3.2	30
	Secondary level care SDPs/facilities/hospitals	22.3	6.4	27
	Tertiary level care SDPs/facilities/hospitals	4.3	0.0	4
	Total	**87.2**	**12.8**	**94**

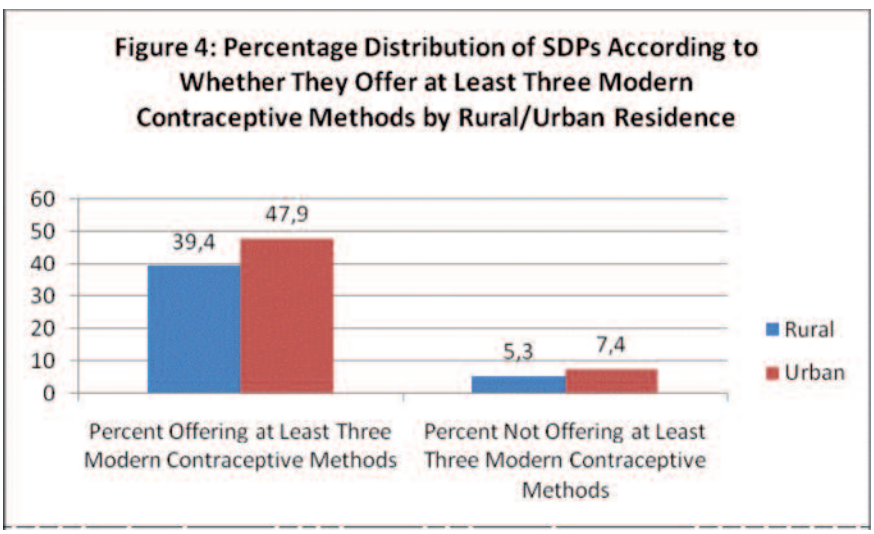
About 13 percent of the SDPs have only two types of contraceptives or less. About half of these are secondary facilities or hospitals. At the tertiary level of service provision, all the four national facilities offer at least three modern contraceptives.

If the SDPs offering at least three modern contraceptives are distributed with respect to district of location, the pattern resembles an ordinary distribution according to their weight in the sample (Table 14). This is because there are very few SDPs that do not meet this criterion of three or more contraceptive products or services and these tend to be sparsely distributed across the districts. Kenema, Kono, Bombali, Kambia, Tonkolili and Pujehun districts do not have a SDP that does not offer at least three modern contraceptives. Western Urban Area and Bonthe District have the highest proportion of medical facilities (3.2 percent each) that are supposed to offer family planning services but which do not have at least three modern contraceptive commodities or services. Also, Kailahun, Koinadugu, Port Loko, Bo and Moyamba districts and Western Rural Area all have SDPs that do not offer three or more modern contraceptives.

Table 14: Percentage Distribution of SDPs Offering at Least Three Modern Contraceptive Methods by District

Province/District		Percent Offering at Least Three Modern Contraceptive Methods	Percent Not Offering at Least Three Modern Contraceptive Methods	Number Of SDPs
EASTERN	Kailahun	5.3	1.1	6
	Kenema	8.5	0.0	8
	Kono	6.4	0.0	6
NORTHERN	Bombali	6.4	0.0	6
	Kambia	5.3	0.0	5
	Koinadugu	3.2	1.1	4
	Port Loko	5.3	1.1	6
	Tonkolili	7.4	0.0	7
SOUTHERN	Bo	9.6	1.1	10
	Bonthe	3.2	3.2	6
	Moyamba	5.3	1.1	6
	Pujehun	4.3	0.0	4
WESTERN	Western Rural	3.2	1.1	4
	Western Urban	13.8	3.2	16
	Number of SDPs	82	12	94

Figure 4 displays a rural-urban distribution of the scenario. The concentration of health facilities that meet the criterion of three modern contraceptives in the urban areas depicts an imbalance service ratio because the more populous rural areas seem to be disadvantaged. However, there are also more urban than rural facilities that do not offer three modern contraceptives. Of the seven urban facilities not offering three contraceptives, three are in Bonthe District and Western Rural Area, and one is in Port Loko district. The five rural facilities are evenly distributed among Bo, Kailahun, Koinadugu and Moyamba districts and Western Rural Area.



When this analysis is extended to include the type of management of the medical centres, the distribution of the centres offering three or more commodities or services shows a one-to-one correspondence with the frequency of occurrence of each with respect to the general sample distribution (Table 15). Many of the facilities that failed to offer at least three contraceptives are privately owned SDPs. A possible explanation for this is that contraceptives are normally free commodities in Sierra Leone. Since private individuals run profit-making ventures, there is no real interest for them to include non-profitable services and commodity items in their portfolio.

Table 15: Percentage Distribution of SDPs Offering at Least Three Modern Contraceptive Methods by Type of Management

Type of Management	Offering at Least Three Modern Contraceptive Methods	Not Offering at Least Three Modern Contraceptive Methods	Number of SDPs
Government	69.1	8.5	73
Private	8.5	3.2	11
NGO	6.4	1.1	7
FBO	1.1	0.0	1
FORCE	2.1	0.0	2
Number of SDPs	82	12	94

2.2.3 Reasons for Not Offering Certain Contraceptives

The analysis reveals that three (oral pills, male condoms and injectables) of the eight modern contraceptives are available for client uptake for about three-quarters of the SDPs but the frequencies for the rest of the contraceptive methods is typically less than 40 percent. In Table 16, the main reasons for not offering certain contraceptives are:

(a) The contraceptive type is out of stock – With the exception of the oral pill, between five and ten percent of the responses fall into this category. The percentages are moderate but this shows that lack of supply to the health facilities is affecting all contraceptive commodities;

(b) Commodity or service is not offered at the SDP – But for male condoms, oral pills and injectables (the more popular commodities), the rest of the contraceptive methods are conspicuously unavailable at the service centres as a result of this.

(c) Low or no client demand – Low client demand is an important reason for a service centre not providing the female condom and lack of male sterilization services. Female condoms are detested because some clients feel that they are not convenient and that they make a lot of noise. Male sterilization is not demanded frequently because of low male involvement in RH issues, including contraception.

Table 16: Modern Contraceptive Method by Main Reason for Non-Availability at SDP

Modern Contraceptive Method	Main Reason for Non-availability of Contraceptive					
	Out of stock/ no supply	Commodity or service not offered at SDP	Low or no client demand	No skilled staff	Service is new at SDP	Fear of side effects
Male Condoms	6.5	0.9	-	-	-	-
Female Condoms	9.3	29.6	9.3	-	-	-
Oral Pills	2.8	2.8	-	-	-	-
Injectables	4.6	8.3	-	-	-	0.9
IUDs	7.4	16.7	0.9	45.4	0.9	-
Implants	6.5	14.8	1.9	52.8	-	-
Sterilization for Females	4.6	9.3	0.9	62.0	-	-
Sterilization for Males	4.6	13.0	4.6	62.0	-	-
Number of SDPs Surveyed	108	108	108	108	108	108

(d) No skilled staff – The lack of skilled medical staff is an important reason why IUDs, implants and sterilisation for males and females are not offered to clients at many health service facilities across the country. Data show that the more complex the skills required for the service to be delivered, the more the number of SDPs that do not offer the service. Consequently, the proportion rises from about 45 percent for IUDs to 62 percent for both types of sterilisation. The combination of low client demand and lack of skills for a service or commodity result in no commodity or service being offered at a given SDP.

(e) Other reasons – About one percent of the respondents said that the reason for not offering injectables is because clients fear the side effects; and another one percent reported that IUD services were just been set up at the centre.

2.3 Availability of Maternal and Reproductive Health Medicines

2.3.1 Maternal and RH Medicines Available by Types of Facilities

It would appear that the medical facilities are relatively better prepared to handle maternal and RH medicines because more medical facilities (103 out of 108 or 95.4 percent) offer more delivery services than family planning services (Tables 20 and 13 respectively). With the exception of azithromycin and cefexime, all other maternal or RH medicines are available in over 60 percent of the health facilities. Magnesium sulphate, metronidazole and iron/folate are easily available in most health centres across the nation. To determine the availability or otherwise of the maternal or RH medicines at each medical centre, enumerators were asked to validate the response by a physical inventory of stock and note the appropriate finding. Data in Table 17 attest to the fact that all responses were verified to be accurate; as the percentage response of drugs currently available at the time of the survey exactly matches that for the inventory exercise in all cases.

Table 17: General Availability of Maternal or Reproductive Health Medicines

Life-Saving Maternal or Reproductive Health Medicines	Frequency	Percent	Inventory taken, medicine in stock
Amoxicillin	70	64.8	64.8
Azithromycin	15	13.9	13.9
Benzathine Penicillin	71	64.8	64.8
Cefexime	18	16.7	16.7
Clotrimazole	68	63.0	63.0
Ergometrine	66	61.1	61.1
Iron/Folate	80	74.1	74.1
Magnesium Sulfate	92	85.2	85.2
Metronidazole	81	75.0	75.0
Oxytocine	68	63.0	63.0
Number of SDPs Surveyed	108	108	108

2.3.2 Availability of Five Essential Life-Saving Maternal and RH Medicines

Data reveal that 75.7 percent of the health facilities have five essential life-saving maternal and reproductive health medicines. The distribution of these SDPs by type of health facility shows that iron/folate, magnesium sulfate, metronidazole, amoxicillin, clotrimazole, oxytocine and amoxicillin are generally available to clients in more than two-thirds of all medical centres nationwide (Table 18). As with contraceptive commodities and services, MCHPs and secondary facilities have the highest proportions of all providers in the country. Azithromycin and especially benzathine penicillin and cefexime are not readily available at the health centres. Benzathine penicillin is not available at tertiary facilities; whilst CHCs, CHPs and secondary SDPs lack cefexime.

Table 18: Percentage Distribution of SDPs with Five (including Three Essential) Life-Saving Maternal or Reproductive Health Medicines Available by Type of Facility

LIFE-SAVING MATERNAL OR RH MEDICINES	Primary Level Care SDPs			Secondary level care SDPs	Tertiary level care SDPs	TOTAL
	CHC	CHP	MCHP			
AMOXYCILLIN	10.7	7.8	21.4	24.3	3.9	68.0
AZYTHROMYCIN	0.0	2.9	1.9	8.7	1.0	14.6
BENZATHINE PEN.	0.1	0.1	0.2	0.2	0.0	0.7
CEFEXIME	0.0	0.0	0.1	0.0	0.1	0.1
CLOTRIMAZOLE	11.7	7.8	25.2	19.4	1.9	66.0
ERGOMETRIN	9.7	6.8	15.5	28.2	3.9	64.1
IRON/FOLATE	15.5	9.7	26.2	22.3	3.9	77.7
MG SULFATE	16.5	11.7	29.1	28.2	3.9	89.3
METRONIDAZOLE	13.6	10.7	24.3	26.2	3.9	78.6
OXYTOCINE	10.7	5.8	16.5	29.1	3.9	66.0

The availability of five life-saving maternal or reproductive health medicines (including three essential) is also analysed by district (see Annex A). The medicines are fairly evenly distributed across the districts, except for the fact that the presence of azithromycin and cefexime is less than desirable. Magnesium sulphate, iron/folate and metronidazole are the most commonly available drugs in the country. The rest of the medicines are available in at least two-thirds of the facilities in each district.

2.3.3 Reasons for Not Offering Certain Life-Saving Maternal and RH Medicines

There are two main reasons why some life-saving maternal and reproductive health medicines are not offered at the SDPs; these are: (a) the medicine is out of stock or there has been no supply during the six months preceding the survey and (b) the medicine is not on offer at the SDP (Table 19). For Cefexime and Azithromycin, long distance from Freetown, the expensive cost of the drugs and low or no client demand are minor reasons for which the health centres cannot offer the drugs to clients. These combine to cause 'stock outs' or force SDPs to stop providing the drugs completely. Given this scenario, it would appear that solving the problems of accessibility to life-saving maternal medicines may be simpler than that of barriers to uptake of family planning commodities and services.

Table 19: Life-Saving Maternal and RH Medicines by Main Reason for Non-Availability at SDP

Life-Saving Maternal and RH Medicines	Reasons for Non-availability of Contraceptive			
	Out of stock or no supply	Medicine is not offered at SDP	Long distance to buy drug or drug is expensive	Low/no client demand
Amoxicillin	15.7	14.8	-	-
Azithromycin	25.0	53.7	1.9	-
Benzathine Penicillin	17.6	12.0	-	-
Cefexime	25.0	51.9	0.9	-
Clotrimazole	17.6	13.9	-	-
Ergometrine	12.0	22.2	-	-
Iron/Folate	12.0	8.3	-	-
Magnesium Sulfate	3.7	6.5	-	-
Metronidazole	11.1	8.3	-	0.9
Oxytocine	8.3	23.1	-	-
Number of SDPs	103	103	103	103

2.4 Incidence of 'No Stock Outs' of Modern Contraceptives

2.4.1 'No Stock Out' at Time of Survey

The incidence of 'no stock out' (at the time of the survey) is another important index of determining RHCS in a country. Where there are 'no stock outs', there is a guarantee that couples can have the type of contraception they choose and in quantities that they need. This is a basic reproductive health right that must be respected.
The analysis shows in Table 20 that the main contraceptive items in stock at the time of the survey were condoms (male and female) and IUDs. In addition, secondary level care facilities (general hospitals) were the only category of healthcare units that could boast of availability of all the contraceptive commodities and services. To a lesser extent, implants, oral pills and injectables were also generally available at the SDPs. Male and female sterilisations were the services available mainly in secondary facilities (hospitals). Also, injectables were

not available at CHPs, MCHPs and tertiary SDPs. It is noteworthy that oral pills cannot be accessed only at MCHPs.

At the time of the survey, male and female condoms, IUDs and implants were the most available contraceptive items (Annex B). Koinadugu district was the only place where all kinds of contraception were placed at the disposal of clients at the time of the survey. Sterilisation for males and females were available at only Kambia and Koinadugu districts. Oral pills and injectables were also unpopular at the time of the survey. With only 2.1 percent of the SDPs doing female sterilisation across the country, this method of contraception was the least available to clients.

Table 20: Percentage Distribution of SDPs with Modern Contraceptive Methods in Stock at the Time of the Survey by Type of Facility

CONTRACEPTIVE METHOD IN STOCK AT TIME OF SURVEY	Primary Level Care SDPs			Secondary level care SDPs	Tertiary level care SDPs
	CHC	CHP	MCHP		
MALE CONDOMS	19.1	14.9	27.7	24.5	4.3
FEMALE CONDOMS	17.0	14.9	31.9	23.4	4.3
ORAL PILLS	3.2	1.1	0.0	11.7	2.1
INJECTABLES	2.1	0.0	0.0	8.5	0.0
IUDs	13.8	10.6	26.6	19.1	4.3
IMPLANTS	6.4	8.5	9.6	14.9	3.2
FEMALE STERILIZATION	0.0	0.0	0.0	2.1	0.0
MALE STERILIZATION	0.0	0.0	0.0	9.6	1.1

Analyses of commodities and services 'in stock' at the time of the survey show that all kinds of contraceptives were offered at facilities at the urban centres (Table 21). Incidentally, sterilisation for males and females were the only contraceptive items that were not in stock at facilities in the rural areas. The absence of these items was shown to be closely associated with the lack of trained medical personnel to perform those functions. This clearly reflects the gross inadequacy that exists in the countryside with regards to the availability and deployment of skilled medical staff.

Table 21: Percentage Distribution of SDPs with Modern Contraceptive Methods in Stock at the Time of the Survey by Rural and Urban Residence

Contraceptives in Stock		Rural	Urban
	Male Condom	40.4	50.0
	Female Condom	43.6	47.9
	Oral Pill	3.2	14.9
	Injectable	34.0	40.4
	Implant	16.0	26.6
	Female Sterilization	0.0	2.1
	Male Sterilization	0.0	10.6
	Number of SDPs	42	52

2.4.2 'No Stock Out' in the Last Six Months

The study also investigated the incidence of no stock-outs of contraceptives within the six months preceding the survey. This is an important index of availability and a proxy indicator of access to contraceptive commodities in the country (Table 22). According to data, only 41.4 percent of health facilities experienced no stock-outs in the six months preceding the survey. This is interesting because the Central Medical Stores in Freetown and all District Medical Stores are full of contraceptives. The research finding may be an expression of the challenges of distribution of contraceptive commodities to SDPs.

With respect to the contraceptive commodities, female and male condoms have the longest periods of no 'stock outs', followed by IUDs. The least incidences of 'no stock outs' were recorded of female sterilisation and injectables. In general, the incidence of stock outs affected only a small proportion of SDPs that offer family planning services and commodities. The two contraceptive services and commodities affected were injectables and female sterilisation respectively; and these affected only CHPs and tertiary medical facilities. MCHPs and secondary level care SDPs were the most overall reliable contraceptive service delivery institutions as their percentages of 'no stock out' were the highest in the sample.

Table 22: Percentage Distribution of Service Delivery Points with No Stock Out of Modern Contraceptive Methods in the Last Six Months by Type of Facility

CONTRACEPTIVE METHOD	Primary Level Care SDPs			Secondary level care SDPs	Tertiary level care SDPs	Total
	CHC	CHP	MCHP			
MALE CONDOMS	18.1	12.8	26.6	23.4	4.3	85.1
FEMALE CONDOMS	17.0	14.9	29.8	21.3	4.3	87.2
ORAL PILLS	3.2	1.1	1.1	12.8	2.1	20.2
INJECTABLES	2.1	0.0	1.1	5.3	0.0	8.5
IUDs	13.8	9.6	24.5	16.0	4.3	68.1
IMPLANTS	6.4	8.5	10.6	12.8	3.2	41.5
FEMALE STERILIZATION	1.1	0.0	2.1	4.3	0.0	7.4
MALE STERILIZATION	1.1	1.1	2.1	7.4	1.1	12.8

The incidence of 'no stock out' is also analysed by district (Annex C). Geographically, the district with the highest incidence of 'no stock out' in the six months preceding the survey was the Western Urban Area (Freetown); while Bombali district. Kambia, Koinadugu, Bo and Moyamba districts each experienced 'no stock out' in only one service or commodity for contraception.

2.4.3 Reasons for 'No Stock Out'

Western Urban Area (Freetown) and Bombali district experienced 'no stock out' in any contraceptive commodity or service in the preceding six months preceding the survey. This could be because the two geographic subdivisions of the country had been model districts for UNFPA reproductive health interventions for the Country Programme (2007-2010). Different SDPs of Princess Christian Maternity Hospital (PCMH) and Government Hospital Makeni are therefore well resourced, generally. UNFPA is also the single provider of contraceptive commodities to about 90-95 percent of health facilities (whether owned by government, private or by NGO, etc.).

SECTION III: CONCLUSION

3.1 Summary of Findings

The healthcare delivery system is anchored on the primary healthcare, which accounts for 64.8 percent of all health facilities in Sierra Leone. At the nucleus of this system is the district health services which are made up of a network of Peripheral Health Units (PHUs), the District Hospitals and the District Health Management Teams (DHMTs). The PHUs are the first line health service providing institutions and are sub-classified into three levels. The health facilities are unevenly distributed in the country; Bo, Kenema, Port Loko and Bombali Districts and Western Area Urban (about one-third of the geographic subdivisions of the country) account for 52.7 percent of all health facilities. About 54 percent of health centres are located in the urban areas which house 37 percent of the population. In addition, about half of the secondary level care facilities are in the city of Freetown alone.

Government of Sierra Leone owns and manages close to 75 percent of the health service delivery points in the country. Compared to other countries in sub-Saharan Africa, the private sector is underdeveloped and delivers services mainly in curative care for in-patients and out-patients on a fee-for-service basis. The sector operates under the authority of individual owners and/or boards of directors, mainly in urban areas where higher socio-economic households patronize them. The fact that a little over a third of the health facilities are located beyond 20 miles of their regular medical stores and the average distance is more than 60 miles explains the inherent problems of replenishing supplies in those locations. This situation undermines standards, availability and accessibility of services provided. Qualitative perceptions from rural communities reveal that physical distance to health facilities present a major access barrier to healthcare and allied services.

Family planning services are provided at 87 percent of the SDPs surveyed. Oral pills, male condoms and injectables are the most popular modern contraceptives provided to clients at the SDPs; each being available at about 75 percent or more of the facilities. The least popular modern contraceptive method is sterilization for males, which can be accessed at only three medical centres nationwide. The index of percentage of SDPs offering at least three types of modern contraceptives was 87.2 percent and there are very few SDPs that do not meet this criterion of three or more contraceptive products or services. This looks good but the availability was skewed in favour of urban localities and government-owned health facilities to the disadvantage of the more populous rural areas and privately-owned health centres. The most important reasons why contraceptives were not available at the medical facilities at the time of the survey were either because there were no skilled staff to administer them (especially for IUDs, implants and sterilization for males and females), the commodity was out of stock or was not on offer at the health centre. Other reasons included low client demand and fear of side effects.

Availability of maternal and RH medicines was high at 95.4 percent. With the exception of azithromycin and cefexime, all other maternal or RH medicines are available in over 60 percent of the health facilities. Magnesium sulphate, metronidazole and iron/folate are easily available at the health centres across the nation. Also, 75.7 percent of the health facilities have five essential life-saving maternal and reproductive health medicines. As with contraceptive commodities and services, MCHPs and secondary facilities have the highest proportions of all providers in the country. Azithromycin and especially benzathine penicillin and cefexime are not readily available at the health centres. A maternal or RH medicine may only be unavailable at an SDP if the medicine is out of stock or there has been no supply during the six months preceding the survey or if the medicine is not on offer at the SDP. Given this scenario, it would appear that solving the problems of accessibility to life-saving maternal medicines may be simpler than that of barriers to the uptake of family planning commodities and services.

The main contraceptive items in stock at the time of the survey were condoms (male and female) and IUDs. In addition, secondary level care facilities (general hospitals) were the only category of healthcare providers that could boast of availability of all the contraceptive commodities and services. To a lesser extent, implants, oral pills and injectables were also generally available at the SDPs. Male and female sterilisations are services available mainly in secondary facilities (hospitals) and injectables were not available at CHPs, MCHPs and tertiary SDPs. Analysis of the incidence of 'no stock out' in the six months preceding the survey revealed that only 41.4 percent of health facilities experienced no stock-outs. With respect to con-

traceptive commodities, female and male condoms experience the highest periods of no 'stock outs', followed by IUDs. The least incidences of 'no stock outs' were recorded of female sterilisation and injectables. In general, the incidence of stock outs affected only a small proportion of SDPs that offer family planning services and commodities.

Western Urban Area (Freetown) and Bombali district experienced 'no stock out' in any contraceptive commodity or service in the preceding six months before the survey. This can be attributed to the fact that these two geographic subdivisions of the country were the model districts for UNFPA reproductive health interventions for the Country Programme (2007-2010). The respective SDPs of Princess Christian Maternity Hospital (PCMH) and Government Hospital Makeni are, therefore, well resourced (generally). UNFPA is also the single provider of contraceptive commodities to about 90-95 percent of health facilities (whether owned by government, private or by NGO, etc.).

3.2 Recommendations

This exploratory study of reproductive health commodity security (RHCS) in Sierra Leone has thrown light on many issues that had hitherto either not been known or were taken for granted. The findings are an important starting point for better planning for RHCS in the country. In light of this, the following recommendations are made:

1. Family planning should be repositioned by making it an integral part of primary healthcare and provision made for universal access by removing user fees on contraceptive commodities and services nationwide. This should be buttressed by intensive sensitisation campaigns, using ingenious outreach methods that are culturally sensitive to the Sierra Leonean society.
2. Further studies should be supported to investigate why the contraceptive prevalence rate is very low and how the uptake among couples and sexually active unmarried persons can be increased. In doing this, efforts should be made to reach populations in rural localities, which are currently disadvantaged with respect to family planning services and deployment of trained health personnel for same.
3. RHCS programming should ensure that all SDPs should offer at least three types of modern contraceptive and at least five life-saving maternal and RH medicines at all times. All privately-owned health facilities should be encouraged to implement the RHCS programme and provided with the resources to do so.
4. Strengthening of the health commodity distribution system from central district stores to peripheral PHUs, CHCs and MCHPs should be given added focus to increase commodity security nationwide.
5. Given their stature in the SDP continuum, care should be taken to ensure that tertiary level care RH facilities are stocked with every type of contraceptive commodity and life-saving medicines at all times.

ANNEXES

Annex A: Percentage Distribution of SDPs with Five (including Three Essential) Life-Saving Maternal or Reproductive Health Medicines Available by District

Province/District		1	2	3	4	5	6	7	8	9	10
EASTERN	Kailahun	3.9	1.9	4.9	0.0	4.9	3.9	4.9	5.8	5.8	2.9
	Kenema	4.9	0.0	2.9	0.0	3.9	3.9	1.9	6.8	4.9	3.9
	Kono	2.9	0.0	2.9	0.0	4.9	1.9	3.9	3.9	2.9	2.9
NORTHERN	Bombali	4.9	0.0	4.9	1.0	3.9	4.9	4.9	5.8	5.8	5.8
	Kambia	1.9	0.0	3.9	0.0	3.9	3.9	4.9	4.9	2.9	4.9
	Koinadugu	1.9	1.9	1.9	1.0	3.9	1.0	3.9	2.9	1.9	1.0
	Port Loko	8.7	1.9	4.9	1.9	5.8	4.9	7.8	8.7	8.7	5.8
	Tonkolili	6.8	1.9	6.8	1.9	6.8	5.8	6.8	6.8	6.8	3.9
SOUTHERN	Bo	9.7	1.0	10.7	1.0	9.7	9.7	9.7	10.7	10.7	11.7
	Bonthe	3.9	0.0	2.9	1.0	1.9	2.9	5.8	5.8	4.9	2.9
	Moyamba	2.9	1.9	2.9	1.0	2.9	1.0	4.9	4.9	2.9	1.0
	Pujehun	1.0	1.0	3.9	1.0	2.9	3.9	2.9	3.9	3.9	3.9
WESTERN	Western Rural	2.9	0.0	2.9	0.0	1.9	1.9	3.9	3.9	2.9	1.9
	Western Urban	11.7	2.9	11.7	7.8	8.7	14.6	11.7	14.6	13.6	13.6
	Total	**68.0**	**14.6**	**68.0**	**17.5**	**66.0**	**64.1**	**77.7**	**89.3**	**78.6**	**66.0**

Key: **1**-Amoxycillin; **2**-Azithromycin; **3**-Benzathine Penicillin; **4**-Cefexime; **5**-Clotrimazole; **6**-Ergometrin; **7**-Iron/Folate **8**-Magnesium Sulfate; **9**- Metronidazole and **10**-Oxytocine

Annex B: Percentage Distribution of SDPs with Modern Contraceptive methods in Stock at the Time of the Survey by District

Province/District		1	2	3	4	5	6	7	8
EASTERN	Kailahun	6.4	6.4	0.0	0.0	0.0	3.2	0.0	1.1
	Kenema	7.4	8.5	0.0	0.0	7.4	3.2	0.0	0.0
	Kono	6.4	5.3	2.1	1.1	4.3	2.1	0.0	0.0
NORTHERN	Bombali	6.4	6.4	1.1	1.1	6.4	3.2	0.0	1.1
	Kambia	5.3	5.3	1.1	0.0	5.3	1.1	1.1	1.1
	Koinadugu	3.2	3.2	1.1	1.1	2.1	1.1	1.1	1.1
	Port Loko	6.4	4.3	0.0	0.0	3.2	1.1	0.0	0.0
	Tonkolili	7.4	7.4	0.0	0.0	7.4	4.3	0.0	0.0
SOUTHERN	Bo	9.6	10.6	1.1	1.1	9.6	3.2	0.0	0.0
	Bonthe	6.4	3.2	0.0	0.0	3.2	5.3	0.0	0.0
	Moyamba	5.3	6.4	0.0	0.0	5.3	1.1	0.0	0.0
	Pujehun	4.3	4.3	2.1	1.1	4.3	3.2	0.0	0.0
WESTERN	Western Rural	3.2	4.3	0.0	0.0	2.1	3.2	0.0	0.0
	Western Urban	12.8	16.0	9.6	5.3	13.8	7.4	0.0	0.4
	Total	**90.4**	**91.5**	**18.1**	**10.6**	**74.5**	**72.6**	**2.1**	**10.6**

Key: **1**-Male Condoms; **2**-Female Condoms; **3**-Oral Pills; **4**-Injectables; **5**-IUD; **6**-Implants; **7**-Female Sterilisation and **8**-Male Sterilisation

Annex C: Percentage Distribution of SDPs with 'No Stock Out' of Modern Contraceptive Methods in the Six Months Before the Survey by District

Province/District		1	2	3	4	5	6	7	8
EASTERN	Kailahun	6.4	6.4	0.0	0.0	0.0	3.2	0.0	1.1
	Kenema	7.4	8.5	0.0	0.0	7.4	3.2	0.1	0.0
	Kono	6.4	4.3	2.1	1.1	3.2	2.1	0.0	0.0
NORTHERN	Bombali	6.4	6.4	1.1	1.1	6.4	2.1	0.1	1.1
	Kambia	5.3	5.3	1.1	0.0	5.3	1.1	0.1	1.1
	Koinadugu	3.2	3.2	1.1	1.1	2.1	1.1	0.0	1.1
	Port Loko	4.3	4.3	0.0	0.0	2.1	1.1	0.0	1.1
	Tonkolili	7.4	7.4	0.0	0.0	7.4	4.3	0.1	0.0
SOUTHERN	Bo	9.6	10.6	1.1	1.1	9.6	3.2	0.1	0.0
	Bonthe	5.3	3.2	1.1	0.0	3.2	5.3	0.0	0.0
	Moyamba	4.3	5.3	1.1	1.1	4.3	3.2	0.0	2.1
	Pujehun	4.3	4.3	2.1	1.1	4.3	3.2	0.0	0.0
WESTERN	Western Rural	3.2	4.3	0.0	0.0	2.1	3.2	0.0	0.0
	Western Urban	11.7	13.8	9.6	2.1	10.6	5.3	0.1	5.3
	Total	**85.1**	**87.2**	**20.2**	**8.5**	**68.1**	**41.5**	**0.7**	**12.8**

Key: **1**-Male Condoms; **2**-Female Condoms; **3**-Oral Pills; **4**-Injectables; **5**-IUD; **6**-Implants; **7**-Female Sterilisation and **8**-Male Sterilisation

UNFPA SIERRA LEONE

Because everyone counts

UNFPA Sierra Leone
7B Sharon Road, Off Main Motor Road
Wilberforce,
P.O.Box 1011
Freetown, Sierra Leone
Tel: +232-22 320 230
+232-76 625 964
Email: registry-sl@unfpa.org