

2018 FACILITY ASSESSMENT FOR REPRODUCTIVE HEALTH COMMODITIES AND SERVICE

SURVEY METHODOLOGY FOR UNFPA SUPPLIES

1.0 INTRODUCTION

Since 2010, UNFPA, through its flagship programme, UNFPA Supplies¹, has supported the conduct of an annual survey on the availability and stock-out of contraceptives and maternal health medicines in the programme implementing countries. The survey was expanded in 2013 in three fronts; a) to focus on availability of three modern contraceptive methods at primary service delivery points, and five modern contraceptive methods at both secondary and tertiary service delivery points; b) to cover 46 countries, and c) to include other key issues related to family planning service delivery.

1.1 Revisions

Please note that the timeframe for the indicator on “no stock out” is with reference to **the last THREE months**. The questionnaire has been revised accordingly. For 2016 onwards, the major revisions are as follows;

- Under Module 1, Section 3 has been divided into two sub sections. Section 3.1 focuses on measuring offering or provision of contraceptive methods in line with existing national protocols, guidelines and/or laws specific for levels of SDPs in the countries; and Section 3.2 (which is new) is based on methods that the SDP regularly provides as part of its normal service delivery.
- Section 5 of Module 1 has been also divided into two sub sections, with Section 5.1 focusing on measuring aspects of stock out based on methods expected to be offered based on the existing national protocols, guidelines and/or laws; and Section 5.2 (newly added) based on methods that the SDP regularly provides.
- With respect to the availability of a broad range of methods, this survey will continue to track 3 methods at primary levels (to ensure comparison with other years) as well as the availability of five methods at primary, secondary and tertiary levels.

To also ensure comparability with previous surveys, we will continue to measure stock out of a) modern contraceptive methods, b) three modern contraceptive methods, and c) 5 modern contraceptive methods.

These revisions have been made to ensure that data needed by the global community, including partners in FP2020. The aim is to ensure that UNFPA, through UNFPA Supplies, fulfils its commitment to making data available for measuring and tracking results of RHCS/FP interventions. For UNFPA Supplies, these additions further provide new perspectives for measuring methods offered and incidence of stock out of contraceptives in the programme implementing countries.

For 2017, as a result of the revision of the UNFPA Supplies results framework, the facility survey questionnaire was modified to focus availability of trained staff in SDPs for provision of modern contraceptives, and to include items on whether the orders from SDPs are fully fulfilled; and, the existence of trained staff with skills in some basic aspects of logistics management information system.

¹ Previously known as the Global Programme to enhance Reproductive Health Commodity Security (GPRHCS)

2.0 THE QUESTIONNAIRE

The Questionnaire (which is an annex to this document) is divided into the following three modules and 15 sections:

MODULE 1: AVAILABILITY OF COMMODITIES AND SERVICES

Section 1: Facility Identification (Name, Location and Distance)

Section 2: SDP type and services provided

Section 3.1: Modern contraceptive methods offered at SDPs in line with the current national protocols, guidelines and/or laws specific for levels of service delivery points (by method, a range of three methods and a range of five methods)

Section 3.2: Modern contraceptive methods normally offered by SDPs on a regular basis and as part of its normal service delivery process (by method, a range of three methods and a range of five methods)

Section 4: Availability of maternal/RH medicines

Section 5.1: No stock out of modern contraceptive methods that SDPs are expected to provide in line with the current national protocols, guidelines and/or laws specific for levels of service delivery (within the last three months and on the day of the survey; and, with respect to any method, a range of three methods and a range of five methods)

Section 5.2: No stock out of modern contraceptive methods that are regularly provided as part of the SDPs normal service delivery process (within the last three months and on the day of the survey; and, with respect to any method, a range of three methods and a range of five methods)

MODULE 2: HEALTH FACILITY RESOURCES

Section 6: Supply chain

Section 7: Existence of cold chain at SDP

Section 8: Staff training for family planning

Section 9: Staff supervision for reproductive health including family planning

Section 10: Availability of guidelines check-lists and job aids

Section 11: Availability and use of Information Communication Technology (ICT)

Section 12: Waste disposal

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Section 13: Charging of user fee

MODULE 3: EXIT INTERVIEW - CLIENTS' PERCEPTION AND APPRAISAL OF COST FOR FP SERVICES

Section 14: Exit Interview - Clients' perception

Section 15: Exit Interview - Clients' appraisal of cost for FP services

2.1 Reference to national guidelines, protocols and laws

As in the previous surveys, the focus for Sections 3, 4 and 5 of the questionnaire is that the current national guidelines, protocols and laws should be the yardsticks against which the SDPs should be assessed in terms of the commodities (contraceptives and maternal health medicines) they provide. Therefore the questionnaire now makes reference to this and requires; first, an investigation into which commodities the SDPs are expected to offer or have available; and second, which of those (they are expected or mandated to offer or have available) do they actually offer or have available.

For instance, where the guideline, protocol and/or law prohibit the provision of a particular contraceptive at a given level of service delivery, the SDP should not be assessed as not offering the contraceptive. Rather an appropriate response is that the issue is *"not applicable – as per national guidelines, protocols and/or laws"*. An option to this effect is now provided for in the tool. The survey team is therefore required to be fully conversant with the existing national guidelines, protocols, and/or laws governing family planning service provision relevant to their country. To underscore the importance of the guidelines, protocols and laws, the survey report as provided for in Section II of the Annotated Outline document (which is an annex to this document), now requires a brief summary of the national guideline, protocols, and/or laws regarding the provision of contraceptives and maternal/RH medicines at various SDPs levels for each country.

2.2 Caution for assessing availability of male/female sterilisation and contraceptives

The availability and stock out of female or male sterilization should be based on the fact that a client would walk into the SDP and be able to receive male/female sterilization if he/she demands it. It should not be restricted to the availability of the equipment and medicines alone. Also important to note is that the availability or stock out of medicines and contraceptives should not be judged base on the brand, dosage or hormonal constitution.

2.3 Analysis of responses

The sections relating to the availability of contraceptives and their stock out should be analysed with reference to only those sampled SDPs that offer family planning services. Similarly, the section relating to the availability of maternal/RH medicines should be should be analysed with reference to the sampled SDPs that offer delivery services.

3.0 LIST OF PRIORITY LIFE-SAVING MEDICINES

A major section of the survey instrument which has been revised is Section D, which relates to the essential life-saving maternal/RH medicines list. On the new list of WHO priority life-saving

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medicines for women and children 2012, there are now *19 individual medicines which can be constituted into 17 component²* of medicines compared to ten on the previous list. This list is also included as annex to this document. A notable deletion from the list is *Ergometrine* which was previous one of the three mandatory drugs.

The related GPRHCS indicator has been duly revised and the questionnaire adapted accordingly to include all the medicines on the new list. As per the new indicator definition SDPs are expected to have available seven (7) life-saving maternal/RH medicines which must include two mandatory medicines (Magnesium Sulphate and Oxytocin) and any other 5 medicines on the WHO list.

4.0 SAMPLING DESIGN AND SAMPLE SELECTION

The survey will consider the following broad categories of Service Delivery Points (SDPs) that provide modern methods of contraceptives and maternal/RH services as stratum:

Primary Level Care SDPs/facilities (or equivalent to country context); Secondary level care SDPs/facilities/hospitals (or equivalent); Tertiary level care SDPs/facilities/hospitals (or equivalent)

In addition to the distribution of these SDPs in the administrative units of each country, the type of services they provide (some may provide one and some both) will be relevant to the study. The aim of this procedure is to provide a standardised framework for all the GPRHCS Stream 1 Countries for the conduct of the survey.

4.1 Sampling Frame

Ideally, the ministry in charge of health or an appropriate government agency should have a list of all service delivery points (providing Family Planning and Maternal Health services) in each of the administrative units of the country. This list will serve as a frame for the selection of samples in each country.

4.2 Use of Sampling Formula to obtain Sample Size

Taken 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 good estimation of the parameters of the population. It is in this respect that the following formula is proposed:

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

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

² Please note that although there are 19 individual medicines on the WHO list; a) Sodium chloride and Sodium lactate compound solution are alternates; and that b) Dexamethasone is an alternate to Betamethasone. This therefore applies to this survey; hence the reference to 17 components maternal/RH medicines

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This proposal is made because facility based surveys often take into consideration the categories of health service delivery points, 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 proposed study focuses on the type of facilities as 'standalones' and therefore does not collect data on staff, clients or the population. The formula is 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 comparison between populations.

The formula adopts an approach that gives large (tertiary and secondary facilities) a higher probability of inclusion in the survey because of their small number and provides a guide for choosing a sample of the primary facilities.

Following are step by step guide for using the formula to derive sample sizes.

5.0 ILLUSTRATION FOR SAMPLING FACILITIES

To illustrate the use of the formula, it has been applied to data on Ethiopia (see Tables 1), provided by country office staff.

Table 1: Types of Service Delivery Point providing modern methods in Ethiopia by Administrative Units

Administrative Units	Types of Service Delivery Points			
	Tertiary level care SDPs/facilities/hospitals (or equivalent)	Secondary level care SDPs/facilities/hospitals (or equivalent)	Primary Level Care SDPs/facilities (or equivalent to country context)	Total
Addis Ababa	12	0	64	76
Afar Region	1	1	16	18
Amhara Region	3	11	160	174
Benishangul-Gumuz Region	1	1	16	18
Dire Dawa	0	1	7	8
Gambela Region	1	0	10	11
Harari Region	4	0	7	11
Oromiya Region	12	13	212	237
Somali Region	1	3	11	15
Southern Nations, Nationalities and Peoples' Region	3	12	153	168
Tigray Region	3	5	55	63
TOTAL	41	47	711	799

5.1 Steps for Sampling SDPs for the GPRHCS Survey

5.1.1 Step 1) Calculate relative proportion for the types of SDPs

The relative proportion for Tertiary level SDPs is calculated as follows:

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[Total number of tertiary SPDs] ÷ [Total number of SPDs on the sample frame]. From the information in Table 1 this is $41 \div 799 = 0.05$. The procedure is repeated for secondary and primary institutions and the results presented in Table 3.

Table 3: Relative Proportion of Categories of SPDs in Ethiopia

	Tertiary level care SDPs/facilities/hospitals (or equivalent)	Secondary level care SDPs/facilities/hospitals (or equivalent)	Primary Level Care SDPs/facilities (or equivalent to country context)	Total
Number of SPDs	41	47	711	799
Relative Proportion	0.05	0.06	0.89	1.00

5.1.2 Step 2) Apply 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 value is also determined by the confidence limit or the precision of the estimated value. In the example below the confidence interval is set at Z-score = 95 per cent and 5 per cent confidence limit.

Minimal sample size for Tertiary level care SPDs/facilities/hospitals (or equivalent) (95% confidence interval and 5% confidence limit)

$$n = \frac{Z^2 P(1-P)}{D^2} \quad n = \frac{(1.96)^2 \times (0.05)(1-0.05)}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.0475}{0.0025} \quad n = 73$$

Minimal sample size Secondary level care SPDs/facilities/hospitals (or equivalent) (95% confidence interval and 5% confidence limit)

$$n = \frac{Z^2 P(1-P)}{D^2} \quad n = \frac{(1.96)^2 \times (0.06)(1-0.06)}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.0564}{0.0025} \quad n = 87$$

Minimal sample size for Primary Level Care SPDs/facilities (or equivalent to country context) (99% confidence interval and 5% confidence limit)

$$n = \frac{Z^2 P(1-P)}{D^2} \quad n = \frac{(1.96)^2 \times (0.89)(1-0.89)}{(0.05)^2}$$

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$$n = \frac{3.8416 \times 0.0979}{0.0025} \quad n = 150$$

Table 3: Minimal sample sizes for Ethiopia based on 95 per cent confidence interval (Z-score = 1.96) and 5 per cent confidence limit)

Confidence Interval and Confidence Limit	Minimal Sample Size of Service Delivery Point			
	Tertiary level care SDPs/facilities/hospitals (or equivalent)	Secondary level care SDPs/facilities/hospitals (or equivalent)	Primary Level Care SDPs/facilities (or equivalent to country context)	Total
[95% confidence interval (Z = 1.96) and 5% confidence limit (d = 0.05)]	73	87	150	310

The highlighted cells in Table 3 show that the minimal sample size obtained is more than the population size (in table 1). This should be corrected

5.1.3 Step 3: Correction for abnormal-oversize samples

Where the minimal sample size obtained is greater than the population size as in Table 3, the whole population of the category under consideration should be included in the sample. This abnormality usually occurs when the size of the population is too small for the assumptions of normal distribution of the population to prevail using a given confidence interval and confidence limit.

The abnormal sample size is therefore corrected by replacing the oversized samples by the population sizes shown in Table 4. The total sample size for all categories should also be recalculated to reflect this correction.

Table 4: Corrected minimal sample sizes for Ethiopia based on the 95 per cent confidence interval and 5 per cent confidence limit

Confidence Interval and Confidence Limit	Corrected Minimal Sample Size of Service Delivery Point			
	Tertiary level care SDPs/facilities/hospitals (or equivalent)	Secondary level care SDPs/facilities/hospitals (or equivalent)	Primary Level Care SDPs/facilities (or equivalent to country context)	Total
[95% confidence interval (Z = 1.96) and 5% confidence limit (D = 0.05)]	41	47	150	238

This means that for Ethiopia;

- All the 41 Tertiary level care SDPs/facilities/hospitals (or equivalent) will be included in the sample
- All the 47 Secondary level care SDPs/facilities/hospitals (or equivalent) will be included in the sample

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- 150 of the 711 Primary Level Care SDPs/facilities (or equivalent to country context) will be included in the sample
- Thus a total of 238 SDPs will be sampled from the population of 799 SDP

5.1.4 Step 4: Distribution of Sample Sizes for Administrative Units

The total sample size for each category of SDPs has to be distributed among the administrative units according to the administrative unit's share of a particular category of SDP. This requires the calculation of the relative proportions for each domain. For example the Proportion of Referral and Regional Hospital in Addis Ababa = Number of Tertiary level care SDPs/facilities/hospitals (or equivalent) in Addis Ababa ÷ Total of Tertiary level care SDPs/facilities/hospitals (or equivalent) = $12 \div 41 = 0.2927$ (This indicates that 29.27 per cent of all 'Tertiary level care SDPs/facilities/hospitals (or equivalent)' are located in Addis Ababa.) The results are presented in Table 5.

Table 5: Proportion of Categories of Service delivery Points by Administrative Units

Administrative Units	Category of Service Delivery Point			
	Tertiary level care SDPs/facilities/hospitals (or equivalent)	Secondary level care SDPs/facilities/hospitals (or equivalent)	Primary Level Care SDPs/facilities (or equivalent to country context)	Total
Addis Ababa	0.2927	0.0000	0.0900	0.0951
Afar Region	0.0244	0.0213	0.0225	0.0225
Amhara Region	0.0732	0.2340	0.2250	0.2178
Benishangul-Gumuz Region	0.0244	0.0213	0.0225	0.0225
Dire Dawa	0.0000	0.0213	0.0098	0.0100
Gambela Region	0.0244	0.0000	0.0141	0.0138
Harari Region	0.0976	0.0000	0.0098	0.0138
Oromiya Region	0.2927	0.2766	0.2982	0.2966
Somali Region	0.0244	0.0638	0.0155	0.0188
Southern Nations, Nationalities and Peoples' Region	0.0732	0.2553	0.2152	0.2103
Tigray Region	0.0732	0.1064	0.0774	0.0788
TOTAL	1.0000	1.0000	1.0000	1.0000

5.1.5 Step 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 for Ethiopia.

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Table 6: Distribution of minimal sample sizes for each category of SDPs in Ethiopia $Z_{(95\% 0.05)}$

Administrative Sub Region	Category of Service Delivery Point			
	Tertiary level care SDPs/facilities/hospitals (or equivalent)	Secondary level care SDPs/facilities/hospitals (or equivalent)	Primary Level Care SDPs/facilities (or equivalent to country context)	Total
Addis Ababa	12	0	14	26
Afar Region	1	1	3	5
Amhara Region	3	11	34	48
Benishangul-Gumuz Region	1	1	3	5
Dire Dawa	0	1	1	2
Gambela Region	1	0	2	3
Harari Region	4	0	1	5
Oromiya Region	12	13	45	70
Somali Region	1	3	2	6
Southern Nations, Nationalities and Peoples' Region	3	12	32	47
Tigray Region	3	5	12	20
TOTAL	41	47	149*	237*

* difference as a result of rounding off

Table 6 presents the minimal samples size for each type of SDPs that are to be sampled from each administrative unit in Ethiopia (under Z score for 95 per cent confidence interval and 5 per cent confidence limit). The outcome of the procedure means that all the Tertiary level SDPs/facilities/hospitals (or equivalent) and the Secondary level SDPs/facilities/hospitals (or equivalent) should be included in the sample and surveyed. Likewise, 14 of the 64 Primary Level Care SDPs/facilities (or equivalent to country context) in Addis Ababa should be systematically selected; and, 2 out of the 10 Primary Level Care SDPs/facilities (or equivalent to country context) in Gambela Region should be systematically selected for inclusion in the sample of SDPs to be canvassed.

6.0 FINAL STEP: SYSTEMATIC RANDOM SAMPLING OF TYPES OF SDPS FOR EACH ADMINISTRATIVE UNIT

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

1. For each domain the facilities should be listed without any order or regard to any characteristics

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2. A Sampling Interval (i) should be determined for each domain. This is done by dividing the total number of facilities in the domain by the sample size for that domain:

$$i = \frac{N}{n}$$

Where: i = sampling interval for the domain
N = number of SDPs in the domain
n = sample size for that domain

3. Select a starting point K by randomly selecting a number between 1 and i (the sample interval). Note that K becomes the first SPD in the domain to be chosen.
4. Then select successive SDPs for inclusion in the sample by moving at the interval K+i; K+2i; K+3i; K+4i; K+5i; etc until you have chosen the required sample size from the domain.
5. Steps 1 to 4 should be repeated for each domain in the population

7.0 RECOMMENDED CONFIDENCE INTERVAL AND CONFIDENCE LIMIT

It is recommended that all GPRHCS Stream 1 countries should carry out the sampling procedure based on Z value for 95 per cent confidence level and at 5 per cent confidence limit.

8.0 FACTOR TO INFLATE SAMPLE SIZE

NOTE: Allowance should be made to compensate for possible non-response or non-existence of SDPs that provide a particular service (contraceptive or delivery). In such a case, and where necessary, the sample size could be slightly inflated by a factor (say 10 per cent).

9.0 ASSOCIATED DOCUMENTATION

A questionnaire and a report outline have been prepared by CSB and made available to GPRHCS implementing countries for the conduct of the survey.

10.0 GUIDE FOR CLIENT INTERVIEW

The clients of SDPs are interviewed as they leave the health facility learn about their opinion and satisfaction with the service received, and their appraisal of various cost elements related to accessing FP services. The information will assist in gaging some aspects of the quality of care and cost for FP services from the client's perspective'. The authorities of the SDPs must be informed and their permission obtained before the client interview section can be completed for a particular SDP. It would be advisable for the survey team to advocate with MOH and other civil authorities, where necessary, to ensure the management of SDPs support the conduct of the exit interview.

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Most importantly the consent of the individual clients must be obtained. The interviewer must inform the client about the purpose of the client interview. The interview must be conducted in private. Steps should be taken to ensure that no other person is present for the interview. Confidentiality must be ensured; so the interviewers should not discuss the respondents' answers with anyone, except their survey supervisors. Also, no particulars of the clients should be recorded.

Although client exit interviews are not expected to be based on representative samples of the population, however, efforts must be made to ensure that they are representative of those who visit the facility on that day. In this respect the interviewer should ensure that those interviewed are systematically selected. Therefore;

- A: In primary SDPs, the interviewer should talk to all the clients visiting the facility on the day the client interview is conducted.
- B: For secondary and tertiary SDPs, with high attendance, the interviewer can talk to a sample of clients. The sample should be chosen systematically (every Nth client can be chosen). It is proposed here that the 3rd respondent be chosen from the family planning attendees leaving the SDP on the day.

Where possible it is necessary to interview at least 5 attendees per primary SDPs and 20 per secondary or tertiary SDPs. It should be recognised that these limits depend on the number who attend SDP at the time of the survey. It is therefore left to the survey team of each country to device strategies for collecting information from as many persons as possible. Depending on the country and region, specific times of the day (e.g., morning hours); specific days (market days for some rural communities); or designated clinic days etc., can be explored to reach as many attendees as possible.

ANNEX

- 1) UNFPA_Supplies_2018_Facility_Survey_Revised_Questionnaire_ENGLISH-20170627-final
- 2) UNFPA_Supplies_2018_Facility_Survey_Annotated_Outline_for_Report_ENGLISH-20170612
- 3) WHO_Priority_List_2012