

# **SM2015 – Panama**

## **Baseline Health Facility Survey**

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**Data Quality Report**

**March 2014**



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This Data Quality Report on the SM2015-Panama Facility Survey was produced in agreement with the Inter-American Development Bank (IDB). All analyses and report writing were performed by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. This report is meant as a descriptive analysis to explore the most significant aspects of the information gathered for Salud Mesoamérica 2015. Its purpose is to ensure that collected data is of the highest possible quality.

## About IHME

IHME monitors global health conditions and health systems and evaluates interventions, initiatives, and reforms. Our vision is that better health information will lead to more knowledgeable decision-making and higher achievements in health. To that end, we strive to build the needed base of objective evidence about what does and does not improve health conditions and health systems performance. IHME provides high-quality and timely information on health, enabling policymakers, researchers, donors, practitioners, local decision-makers, and others to better allocate limited resources to achieve optimal results.

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## Chapter 1 SURVEY METHODOLOGY

### 1.1 Overview

*Salud Mesoamérica 2015* (SM2015) is a regional public-private partnership that brings together Mesoamerican countries, private foundations, and bilateral and multilateral donors with the purpose of reducing health inequalities affecting the poorest 20% of the population in the region. Funding focuses on supply- and demand-side interventions, including changes in policy, evidence-based interventions, the expansion of proven and cost-effective healthcare packages, and the delivery of incentives for effective health services. One of its defining features is the application of a results-based financing model (RBF) that relies on serious performance measurement and enhanced transparency in reporting accountability and global impact assessment. The initiative focuses its resources on integrating key interventions aimed at reducing health inequalities resulting from the lack of access to reproductive, maternal, and neonatal health care (including immunization and nutrition) for the poorest quintile of the population.

The objectives of the SM2015 evaluation are to assess whether countries are reaching the targeted indicators set by the initiative, and to evaluate the impact of specific interventions. In Panama, data collection is taking place at households and health facilities in intervention and control areas. The evaluation design includes baseline data collection prior to the beginning of the intervention, as well as follow-up measures at 18 months (only in health facilities), and again at 36 and 54 months. This document describes the methods and results of the baseline measurement in health facilities.

### 1.2 Health facility survey

The health facility survey is one of two (the other being a household survey) components of the overall data collection method employed in the initiative. Twinning of both surveys is a defining and innovative feature designed to most accurately capture prevalence estimates of select key indicators. In general terms, the objectives of the health facility survey are assessing facility conditions, evaluating service provision and utilization, and measuring quality of care. The medical record review (MRR) was implemented in order to capture historical data on the facilities' treatment practices by asking about various medical complications that mothers and infants experienced, along with how each case was treated. It also assessed the medical practices of the facilities before, during, and after uncomplicated births. Importantly, the facility survey captures changes made by interventions at the level of the health services access point, the health facility, and predicts changes in population health outcomes. The baseline health facility survey, recounted in this report, measured baseline prevalence estimates of various health indicators with the aim of monitoring future changes in those indicators.

### 1.3 Contents and methods for data collection

#### 1.3.1 Contents of the 2013 baseline Panama health facility survey

The baseline health facility survey includes three components: an interview questionnaire, an observation checklist, and a medical record review. The questionnaire captures information reported by the facility director, manager, or person in charge of the health facility. The checklist captures objective data observed by the surveyors at the time of the survey using an observation checklist, and in the case of some inputs, also reviewing administrative records to identify the presence of stock-outs in the three

months prior to the survey. The medical record review assesses the record-keeping of the facilities and captures the facilities' treatment practices. In each part of the survey, data are collected on general facility characteristics, infrastructure, human resource composition, supply logistics, infection control, child health care, vaccine availability, family planning, and maternal antenatal, delivery, and postpartum care. For the topics of child and maternal care and family planning, information is collected on the types of services provided, components of the care offered, equipment available, and quality of record keeping.

### **1.3.2 Methods for data collection**

The facility survey is conducted using a computer-assisted personal interview (CAPI). The CAPI was programmed using DatStat Illume and installed into computer netbooks, which are used by the surveyors at all times of the interview. CAPI supports skip patterns, inter-question answer consistency, and data entry ranges. The aim of introducing CAPI to the field was to reduce survey time by prompting only relevant questions, to maintain a logical answering pattern across different questions, and to decrease data entry errors.

### **1.4 Sampling**

For this evaluation, all Ministry of Health facilities serving the areas covered by the SM2015 initiative were included. The sample included 41 facilities that offer ambulatory and basic essential obstetric and neonatal care (EONC), located in the regions of Kuna Yala and Emberá. This list was constructed according to a referral network outlined by the Ministry of Health. Among all ambulatory facilities, the Fundación FES (agency in charge of data collection in Panama) field data collection team identified three facilities that were temporarily or permanently closed, making our final sample 38 facilities instead of 41.

For the Medical Record Review, interviewers were instructed to select records at each facility following a systematic sampling strategy. Records for deliveries and antenatal and postpartum care were selected according to a quota set considering the Essential Obstetric and Neonatal Care (EONC) level that each facility provides.

### **1.5 Survey implementation**

#### **1.5.1 Data collection instruments**

All health facility surveys were conducted using computer netbooks equipped with CAPI programs (see section 1.3.2).

#### **1.5.2 Training and supervision of data collectors**

Data collection in health facilities in Panama was conducted by personnel who previously participated in data collection for SM2015 in Honduras under the supervision of the Fundación FES team, who also coordinated the household survey in Panama. All the personnel (four physicians) attended training sessions and health facility survey pilots, and reviewed the Panama instrument and logistics with the Fundación FES team prior to data collection. The training included an introduction to the initiative, proper conduct of survey, in-depth view of the instrument, and hands-on training on the CAPI software. Training was followed by a two-day pilot of all components of the survey at actual health facilities.

### **1.5.3 Data collection and management**

As described in section 1.3.2, data were collected using computer netbooks equipped with CAPI software. A lead surveyor monitored the conduct of the facility survey and reported feedback. Data collection using CAPI allowed data to be transferred instantaneously once a survey was completed via a secure link to the Institute for Health Metrics and Evaluation (IHME). IHME monitored collected data on a continuous basis and provided feedback. Suggestions, surveyor feedback, and any modifications were incorporated into the health facility instrument and readily transmitted to the field. The new survey instrument would be ready for use on the following day of data collection.

### **1.5.4 Data analysis and report writing**

Ongoing data analysis was done at IHME, and new data were continuously incorporated. Analysis was done using STATA version 13. Performance indicators were calculated at IHME following the indicator definition provided by IDB. A mid survey report was submitted to the Inter-American Development Bank with estimates on key for-payment indicators. This baseline data quality report includes information from facilities in intervention areas.

## Chapter 2 FACILITY-LEVEL INFRASTRUCTURE, RESOURCES, MANAGEMENT, AND SUPPORT

### 2.1 General description of the facility

#### 2.1.1 Type of health facility

A total of 38 facilities were evaluated: 21 ambulatory health units and 17 basic health units. The classification of “ambulatory” includes mobile units, health centers without hospitalization, health posts, and other minimal health units. Basic-level facilities include health centers with hospitalization. These health units are broken down by facility classification and geographical representation in Table 2.1.1a.

**Table 2.1.1a** Facilities by municipality and EONC level

Municipality	Ambulatory	Basic	Total
Emberá	15	3	18
Kuna Yala	6	14	20
Total	21	17	38

Of the 38 evaluated facilities, there were 19 basic attention units (UBAs). This category includes all basic EONC-level facilities and two ambulatory EONC-level facilities that are mobile units.

**Table 2.1.1b** Basic attention units (UBAs) by municipality and EONC level

Municipality	Ambulatory	Basic	Total
Emberá	1	3	4
Kuna Yala	1	14	15
Total	2	17	19

#### 2.1.2 Medical record extraction

The health facility survey included a review of 498 medical records. The number and type of medical records reviewed varied depending on the type of facility and services it provided. Records of antenatal care were evaluated in all facilities. In addition, records of delivery and postpartum care were reviewed at the basic level. Although field teams checked for maternal and neonatal complication records at basic-level facilities, those cases were referred to and records were stored in hospitals, and therefore were not evaluated.

**Table 2.1.2** Number of medical records by facility classification (EONC-level)

Medical records	Ambulatory	Basic	Total
Antenatal care	48	135	183
Delivery care	0	157	157
Postpartum care	0	158	158
Total	48	450	498

### 2.1.3 Referrals

In response to the question, “Do you usually receive referred patients from another health facility?” 19.1% of ambulatory and 70.6% of basic facilities reported receiving referred patients from other facilities. All ambulatory and 94.1% of basic facilities reported sending or referring patients to other health units.

### 2.1.4 Governing authority

All health facilities were public institutions under the jurisdiction of the Ministry of Health (Ministerio de Salud).

## 2.2 Basic infrastructure

### 2.2.1 Electricity and water

Only 33.3% of ambulatory and 64.7% of basic facilities had functional electricity. Of the ambulatory and basic health units that had functional electricity, 44.4% had solar generators, 27.8% used a central electricity supply, 27.8% had an in-facility generator, and 22.2% had a private supply of electricity.

Of all ambulatory facilities, 52.6% reported rainwater as a source of water, and 36.8% had water piped into the facility. Facility wells, hand pumps, bottled water, and river water were also reported as sources serving ambulatory facilities. Most basic facilities reported having water piped into the facility, at 60%. Basic facilities also reported rainwater, river water, facility wells, public wells, and hand pump as sources.

Table 2.2.1 details the sources of electricity and water available by facility classification. Interviewers asked facility representatives to indicate all sources of electricity and water for the health unit; therefore, representatives could indicate more than one source serving the facility.

**Table 2.2.1** Electricity and water

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Functional electricity	21	33.3	10.3	17	64.7	11.6
Source of electricity						
Central supply (Comisión Federal de Electricidad)	7	28.6	17.1	11	27.3	13.4
Private supply	7	14.3	13.2	11	27.3	13.4
In-facility generator	7	14.3	13.2	11	36.4	14.5
Solar generator	7	57.1	18.7	11	36.4	14.5
Other source	7	14.3	13.2	11	18.2	11.6
DK/DR	0			0		
Source of water						
Piped into facility	19	36.8	11.1	15	60	12.6
Public well	19	0		15	6.7	6.4
Facility well	19	5.3	5.1	15	6.7	6.4
Unprotected well	19	0		15	0	
Hand pump	19	5.3	5.1	15	6.7	6.4
Bottled water	19	5.3	5.1	15	0	
Tanker truck	19	0		15	0	
Rain water	19	52.6	11.4	15	33.3	12.2
Other	19	36.8	11.1	15	20	10.3
DK/DR	2			2		

## 2.2.2 Internet access

Only 2.7% of facilities had access to the Internet. More specifically, 0% of ambulatory and 6.3% of basic facilities reported having Internet access.

## 2.3 Personnel

### 2.3.1 Personnel in ambulatory units

Ambulatory health units are further categorized by those that do and those that do not have a doctor on staff. The following table (Table 2.3.1) details the personnel composition in ambulatory health facilities. Personnel are limited in health units without a doctor, with only nurse technicians, health promoters, and health assistants reported. In the “other” category, many facility representatives reported either having a health assistant or nurse technician as the only staff. The mean represents the average number of personnel reported per category. On average, there were 0.3 health promoters and 0.9 health assistants or nurse technicians per ambulatory facility without a doctor. In most cases, ambulatory health units without a doctor only reported having one person staffed at the facility.

Ambulatory health units that do have a doctor report a greater variety of personnel and, in general, a larger number of staff working at the facility. On average, there was one general physician, 0.3 nutritionists, 0.5 nurses, 0.7 auxiliary nurses, 0.2 midwives, and 0.3 health promoters per ambulatory facility with a doctor. In the “other” response category, facility representatives reported nurse technician, health technician, nursing assistant, or sanitation technician as other staff (Table 2.3.1).

**Table 2.3.1** Personnel composition in ambulatory facilities

Personnel type	Ambulatory without doctor			Ambulatory with doctor		
	N	mean	SE	N	mean	SE
General physician	15	0		6	1	
Pediatrician	15	0		6	0	
Nutritionist	15	0		6	0.3	0.5
Pharmacist	15	0		6	0	
Nurse	15	0		6	0.5	0.6
Auxiliary nurse	15	0		6	0.7	0.8
Midwife	15	0		6	0.2	0.4
Social worker	15	0		6	0	
Laboratory technician	15	0		6	0	
Health promoter	15	0.3	0.5	6	0.3	0.5
Other	15	0.9	0.3	6	0.7	0.5

### 2.3.2 Personnel in basic facilities

Table 2.3.2 details the number of personnel reported per category in basic level facilities. On average, there were 2.1 general physicians, 1.5 nurses, 1.5 midwives, 0.9 auxiliary nurses, and 0.9 health promoters per basic-level facility. Also prevalent, although less common, were nutritionists, pharmacists, social workers, lab technicians, radiology technicians, and ambulance drivers.

**Table 2.3.2** Personnel composition in basic health units

Personnel type	N	Basic mean	SE
General physician	17	2.1	1.5
Pediatrician	17	0	
Nutritionist	17	0.4	0.5
Pharmacist	17	0.6	1.2
Nurse	17	1.5	1.6
Auxiliary nurse	17	0.9	1.5
Midwife	17	1.5	3.8
Social worker	17	0.1	0.2
Laboratory technician	17	0.3	0.6
Health promoter	17	0.9	1.1
Internist	15	0	
Gynecologist	15	0	
Surgeon	15	0	
Anesthesiologist	15	0	
Emergency medical technician	15	0	
Radiology technician	15	0.1	0.2
Ambulance driver/polyvalent	15	0.6	0.9
Other specialties	17	1.3	1.3

### **2.3.3 24/7 availability of staff**

Interviewers asked representatives at basic-level facilities about availability of services and staff 24 hours a day and seven days a week. In total, 80% of basic facilities reported providing services 24/7. When asked if a general physician was available on call 24/7, 60% of all basic facilities responded “Yes, every day including weekends and holidays,” 20% responded “Yes, but only Monday to Friday and not on weekends or holidays, or only occasionally,” and 20% responded “No.”

## Chapter 3 CHILD HEALTH

### 3.1 Child services offered – background

This chapter summarizes key indicators related to child health care. In the questionnaire component of the survey, facility representatives were asked about service provision. In the observation component, interviewers observed the setting of the room in which child services are provided, functionality of equipment, stock of pharmacy inputs, stock of vaccines, and related educational materials. 95.2% of ambulatory and 94.1% of basic health units report child health service provision.

**Table 3.1.1** Child health care services provision

	Ambulatory			Basic		
	N	%	SE	N*	%	SE
Unit offers child services	21	95.2	4.7	17	94.1	5.7
Unit vaccinates children under 5	21	81	8.6	17	94.1	5.7
Child care room						
Private room with visual and auditory privacy	20	70	10.3	15	86.7	8.8
Non-private room without auditory or visual privacy	20	15	8.0	15	13.3	8.8
No privacy	20	5	4.9	15	0	
Don't provide such services	20	5	4.9	15	0	
Other	20	5	4.9	15	0	

\*Missing child care room data for one basic-level facility

### 3.2 Child health care equipment

In the health facility survey observation module, interviewers checked availability and functional status of important inputs for child care among children under 5 years old. Table 3.2.1 lists medical equipment relating to basic child health care in facilities that provide these services. Items were observed by the surveyors, rather than merely reported by facility staff.

**Table 3.2.1** Child health care equipment observed and functional in ambulatory facilities

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Oral/axillary thermometer	19	63.2	11.1	n/a	n/a	n/a
Pediatric stethoscope*	4	25	21.6	15	13.3	8.8
Pediatric tensiometer	n/a	n/a	n/a	15	20	10.3
Standing balance or scale for children	19	21.1	9.4	15	33.3	12.2
Stethoscope	19	63.2	11.1	n/a	n/a	n/a
Tallimeter	19	73.7	10.1	15	53.3	12.9

\*Not asked at ambulatory facilities without a doctor; data missing for two facilities

### 3.3 Important drugs and supplements

Interviewers also observed the availability and stock of important drugs and supplements used for basic child health care in the pharmacy section.

**Table 3.3.1** Observed child health care drugs and supplements by EONC level

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Albendazole/mebendazole	19	73.7	10.1	15	100	
Iron	19	73.7	10.1	15	100	
Packets/envelopes of oral rehydration salt	19	84.2	8.4	15	93.3	6.4
Zinc sulfate/zinc gluconate	19	5.3	5.1	15	13.3	8.8
Vitamin A	19	0		15	20	10.3

According to the indicator related to the continuous availability of supplies needed for child care, immunization, and nutrition, basic attention units (UBAs) that provide child services should have continuous availability (no stock-out in the previous three months) of packets or envelopes of oral rehydration salts, zinc sulfate or zinc gluconate, albendazole or mebendazole, iron, and vitamin A. The components of this indicator are further detailed in Table 3.3.2.

While 100% of UBAs had albendazole/mebendazole and iron on the day of the survey, zinc and vitamin A were much less prevalent. Neither of the two ambulatory units had zinc or vitamin A on the day of the survey and therefore did not meet this indicator. At the basic level, only 13.3% had zinc and 20% had vitamin A on the day of the survey. When considering stock of all drugs for child care in the previous three months, 11.8% of basic attention units met the indicator.

**Table 3.3.2** Child health care observed drugs and supplements in basic attention units (UBAs)

Supplement type	UBA					
	Ambulatory			Basic		
	N	%	SE	N	%	SE
Albendazole/mebendazole	2	100		15	100	
Iron	2	100		15	100	
Packets/envelopes of oral rehydration salt	2	100		15	93.3	6.4
Zinc sulfate/zinc gluconate	2	0		15	13.3	8.8
Vitamin A	2	0		15	20	10.3
Continuous availability of all drugs in the previous three months*	2	0		15	13.3	8.8

\*Overall drug availability including availability of all inputs on the day of the survey and no stock-out in the previous three months for all inputs

### 3.4 Education material

Table 3.4.1 lists educational material observed either as cards handed to the caretaker or as disease management flowcharts hung on the unit walls.

**Table 3.4.1** Child health education and awareness

Education material	Ambulatory			Basic		
	N	%	SE	N	%	SE
Materials on child growth and child development	19	36.8	11.1	15	46.7	12.9
Materials on danger signs and symptoms of children at risk	19	15.8	8.4	15	60	12.6

## Chapter 4 VACCINES

### 4.1 Vaccination services

When asked about vaccination services, 81% of ambulatory and 94.1% of basic health facilities reported that they do vaccinate children. All but one UBA (94.7%) provided vaccination services. Interviewers also observed and recorded the setting of the room used for immunization; the majority of facilities provide a private room with visual and auditory privacy, although non-private rooms are also commonly found (Table 4.1.1).

**Table 4.1.1** Vaccination services

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Unit vaccinates children under 5	21	81	8.6	17	94.1	5.7
Immunization room						
Private room with visual and auditory privacy	18	38.9	11.5	15	60	12.6
Non-private room without auditory or visual privacy	18	33.3	11.1	15	40	12.6
No privacy	18	5.6	5.4	15	0	
Other	18	5.6	5.4	15	0	
Don't provide such services	18	16.7	8.8	15	0	

### 4.2 Vaccine logistics

#### 4.2.1 Storage

In the questionnaire component of the survey, interviewers asked facility representatives about vaccine storage. At ambulatory facilities, 58.8% store vaccines in-facility, while 23.5% pick up vaccines from other facilities and 17.6% have vaccines delivered when services are being provided. At basic facilities, 81.3% report storing vaccines within the facility, while 12.5% pick up vaccines from other facilities and 6.3% have vaccines delivered when services are being provided (Table 4.2.1).

Facilities that store vaccines were asked logistical questions about the supply and demand of vaccines. All ambulatory and basic facilities reported self-determination in ordering vaccine supplies, and ordering the same quantity each time. Responses from facility representatives about the time it takes to receive orders and whether they received the correct quantity ordered are further detailed in Table 4.2.1.

**Table 4.2.1** Vaccine supply and demand

Vaccine Information	Ambulatory			Basic		
	N	%	SE	N	%	SE
<b>Storage</b>						
Stored in facility	17	58.8	11.9	16	81.3	9.8
Picked up from another facility	17	23.5	10.3	16	12.5	8.3
Delivered when services are being provided	17	17.6	9.3	16	6.3	6.1
None of the above	17	0		16	0	
<b>Ordering Strategy</b>						
Determines own needs	10	100		13	100	
Need determined elsewhere	10	0		13	0	
Both(differ by vaccine)	10	0		13	0	
<b>Quantity to order strategy</b>						
Order same amount	11	100		13	100	
Different per vaccine	11	0		13	0	
<b>Time to order strategy</b>						
Fixed time, > once/week	11	100		13	84.6	10.0
Fixed time, < once/week	11	0		13	15.4	10.0
Order when needed	11	0		13	0	
<b>Time to receive supplies</b>						
< 1 week	10	90	9.5	12	75	12.5
1-2 weeks	10	10	9.5	12	25	12.5
> 2 weeks	10	0		12	0	
<b>Reception of quantity ordered</b>						
Always	10	60	15.5	13	38.5	13.5
Almost always	10	30	14.5	13	61.5	13.5
Almost never	10	10	9.5	13	0	

### 4.3 Vaccines observed

Table 4.3.1 indicates the percentage of facilities at which at least one unit of a specified vaccine was observed on the registry by the surveyors at the time of the survey.

At the ambulatory level, 83.3% of facilities had pentavalent, MMR, rotavirus, pneumococcal, and BCG vaccines on the day of the survey. Less prevalent at ambulatory facilities were polio and influenza vaccines, at 66.7%. All basic-level facilities had pentavalent (or DPT + HepB + Hib), polio, rotavirus, pneumococcal, and BCG vaccines. 92.3% of basic level facilities had MMR, and 84.6% had influenza vaccines on the day of the survey.

**Table 4.3.1** Vaccine stocks observed

Vaccine type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Pentavalent	6	83.3	15.2	13	92.3	7.4
MMR	6	83.3	15.2	13	92.3	7.4
Polio	6	66.7	19.3	13	100	
Influenza	6	66.7	19.3	13	84.6	10.0
Rotavirus	6	83.3	15.2	13	100	
Pneumococcal conjugate	6	83.3	15.2	13	100	
BCG	6	83.3	15.2	13	100	
DPT alone*	0			1	100	
HepB alone*	0			1	100	
Hib alone*	0			1	100	

\*Only checked if pentavalent not available; missing data for one ambulatory facility

\*\*Pentavalent = DPT + HepB + Hib; MMR = measles + mumps + rubella

#### 4.4 Cold chain

Facilities that store vaccines, collect vaccines from other health units, or have vaccines delivered to the unit to be immediately applied were asked questions related to cold chain. Interviewers observed the type of fridges used to store vaccines in the room or area designated for immunization. Table 4.4.1 details the percent of facilities that had at least one of each type of fridge observed and functional at the time of the survey. Solar fridges and cold boxes were most common at both facility levels, with 27.3% of ambulatory and 28.6% of basic facilities owning cold boxes.

**Table 4.4.1** Fridge availability

Storage	Ambulatory			Basic		
	N	%	SE	N	%	SE
Electric fridge	11	9.1	8.7	14	21.4	11.0
Kerosene fridge	11	0		14	0	
Gas fridge	11	0		14	14.3	9.4
Solar fridge	11	36.4	14.5	14	28.6	12.1
Any of the above	11	72.7	13.43	14	78.6	10.97

## Chapter 5 FAMILY PLANNING

### 5.1 Service provision

This chapter summarizes key indicators related to family planning methods (oral, injectable, barrier, IUD). In the questionnaire component of the survey, facility representatives were asked about service provision and logistics of ordering and receiving supplies. In the observation component of the survey, interviewers observed the stock of certain family planning methods in the previous three months.

As reported by facility representatives, 85.7% of ambulatory and 94.1% of basic facilities reported providing family planning services in-facility (Table 5.1.1a). Interviewers recorded the setting of the room used for family planning services, finding that the majority of facilities offer private rooms with visual and auditory privacy for patients seeking family planning services. When asked about family planning storage, 52.6% of ambulatory and 100% of basic-level facilities reported storing family planning methods in-facility.

**Table 5.1.1a** Family planning (FP) service provision

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Offers FP services	21	85.7	7.6	17	94.1	5.7
FP room						
Private room with visual and auditory privacy	20	60	10.9	15	86.7	8.8
Non-private room without auditory or visual privacy	20	10	6.7	15	13.3	8.8
Visual privacy only	20	0		15	0	
No privacy	20	10	6.7	15	0	
Other	20	5	4.9	15	0	

**Table 5.1.1b** Family planning (FP) storage

	Ambulatory			Basic		
	N	%	SE	N	%	SE
FP Storage						
Yes, stores contraceptives	19	52.6	11.4	16	100	
No, delivered when services are being provided	19	47.4	11.4	16	0	
Don't know/ decline to respond	2			1		

### 5.2 Observed contraception methods and reported family planning services

Table 5.2.1 lists the percent of facilities in which the surveyor observed at least one unit of a specific contraception method at the time of the survey. Most popular in both facility types are male condoms,

pills, and injectables.

Facility representatives were also asked about family planning services, such as the availability of pregnancy tests and trained doctors to perform IUD insertion, tubal ligation, and vasectomy. Questions about service provision were asked depending on facility classification. Of ambulatory facilities that provide family planning services, 12.5% have a doctor on staff to perform IUD insertion. None of the basic-level facilities that provide family planning services had a trained doctor on staff to perform tubal ligation or vasectomy.

**Table 5.2.1** Observed contraception methods and reported services

	Ambulatory			Basic		
	N	%	SE	N	%	SE
<b>Observed FP methods</b>						
Any pill	10	50	15.8	14	92.9	6.9
Combined oral pill	10	50	15.8	14	92.9	6.9
Progestin-only pill	10	0		14	0	
Any injectable	10	60	15.5	14	85.7	9.4
Combined injectable (1 month)	10	40	15.5	14	64.3	12.8
Progestin-only injectable (3 months)	10	60	15.5	14	78.6	11.0
Male condom	10	100		14	100	
Female condom	10	0		14	0	
IUD	10	30	14.5	14	42.9	13.2
IUD insertion kit	n/a	n/a	n/a	14	14.3	9.4
Spermicide	10	0		14	0	
Diaphragm	10	0		14	0	
Emergency contraception pill	10	10	9.5	14	0	
Implant	n/a	n/a	n/a	14	0	
<b>Reported Services</b>						
Offers pregnancy tests	18	22.2	9.8	16	87.5	8.3
Trained doctor to perform IUD insertion	16	12.5	8.3	n/a	n/a	n/a
Trained doctor to perform tubal ligation	n/a	n/a	n/a	14	0	
Trained doctor to perform vasectomy	n/a	n/a	n/a	14	0	

### 5.3 Composite FP indicator

According to the country indicator manual, basic attention units (UBAs) that store family planning methods meet the requirements of the composite family planning indicator if they have available, as observed by surveyors at the time of the survey, certain family planning methods and no stock-out of those methods in the last three months.

Neither of the two ambulatory UBAs stored family planning methods and therefore were not included in

the evaluation of this indicator. Basic-level facilities met the indicator if they observed IUD and IUD insertion kits on the day of the survey and if they had continuous availability of condoms, any pill, and any injectable. In total, 7.1% of basic attention units met these criteria.

The components of this indicator are further detailed in Table 5.3.1.

**Table 5.3.1** Composite family planning indicator

	Basic		
	N	%	SE
Condom	14	100	
Any pill	14	92.9	7.1
Any injectable	14	85.7	9.7
Intrauterine device	14	42.9	13.7
IUD insertion kit	14	14.3	9.7
All above methods available on the day of the survey	14	7.1	7.1
Continuous availability of all FP methods in the previous three months*	14	7.1	7.1

\*Overall FP methods availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of condoms, pills, & injectables

#### 5.4 Teaching and awareness

Table 5.4.1 illustrates the percent of facilities that promote family planning through counseling, teaching, and educational graphics posted in the facility.

**Table 5.4.1** Teaching and awareness on family planning and sexually transmitted infections (STIs)

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Individual FP counseling*	18	100		16	100	
Group FP counseling* **	18	100		15	86.7	8.8
FP posters on walls of facility***	10	30	14.5	15	46.7	12.9
STI/HIV posters on walls of facility***	10	70	14.5	15	53.3	12.9

\*Asked in the questionnaire if facility reported providing family planning services

\*\*One basic facility selected 'decline to show' \* was excluded from analysis

\*\*\*Asked in the observation component if facility reported storing contraceptives

## Chapter 6 MATERNAL HEALTH: ANTENATAL CARE (ANC), DELIVERY, AND POSTPARTUM CARE (PPC)

### 6.1 Service provision

This chapter summarizes key indicators related to maternal health. Interviewers observed the functionality of equipment, the continuous availability of drugs and supplements, and key lab inputs related to the provision of antenatal, delivery, and postpartum care. In addition to the questionnaire and observation component of the survey, interviewers also reviewed antenatal care (ANC) medical records in all applicable facilities, as well as delivery and postpartum care medical records in facilities at the basic level.

In total, 57.1% of ambulatory facilities reported offering antenatal care services. Although only 46.7% of ambulatory facilities without a doctor reported providing antenatal care services, 60% had a room observed for antenatal care. Similarly, in ambulatory facilities with a doctor, 83.3% reported service provision, but 100% had a room designated for antenatal care services. Both of the ambulatory-level UBAs reported providing antenatal care services.

For the majority of facilities, the setting of the room used for antenatal care had auditory and visual privacy (Table 6.1.1). Questions about delivery and postpartum care (PPC) were not asked at the ambulatory level.

**Table 6.1.1** ANC service provision in ambulatory facilities

	Ambulatory without doctor			Ambulatory with doctor		
	N	%	SE	N	%	SE
Offers ANC services	15	46.7	12.9	6	83.3	15.2
ANC room						
Private room with auditory and visual privacy	9	88.9	10.5	6	50	20.4
Non-private room without auditory or visual privacy	9	11.1	10.5	6	16.7	15.2
Visual privacy only	9	0		6	0	
No privacy	9	0		6	16.7	15.2
Don't provide this service	5					

At the basic EONC level, 88.2% of facilities reported offering antenatal care services; 86.7% of basic facilities also offered postpartum and routine delivery services. Interviewers observed private rooms with auditory and visual privacy for the majority of basic facilities, although non-private rooms were also prevalent (Table 6.1.2).

**Table 6.1.2** ANC, delivery, and PPC service provision in basic facilities

	N	Basic	
		%	SE
Offers ANC services	17	88.2	7.8
Offers routine delivery services (non-urgent)	15	86.7	8.8
Offers PPC services	15	86.7	8.8
ANC - PPC room			
Private room with auditory and visual privacy	15	93.3	6.4
Non-private room without auditory or visual privacy	15	6.7	6.4
Visual privacy only	15	0	
No privacy	15	0	
Delivery room			
Private room with auditory and visual privacy	13	92.3	7.4
Non-private room without auditory or visual privacy	13	7.7	7.4
Visual privacy only	13	0	
No privacy	13	0	

## 6.2 ANC - PPC equipment and pharmacy inputs

### 6.2.1 ANC - PPC equipment

Tables 6.2.1 and 6.2.2 indicate the percentage of facilities where specific ANC and PPC equipment was present and observed as functional by a surveyor at the time of the survey. Due to a problem in the skip pattern of the data collection program, antenatal care equipment data were missing for six ambulatory facilities.

**Table 6.2.1** Observed and functional ANC - PPC equipment by facility classification

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Gynecological exam table*	n/a	n/a	n/a	15	66.7	12.2
Gooseneck lamp or hand lamp	9	0		15	40	12.6
Obstetrical tape	9	22.2	13.9	15	53.3	12.9
Perinatal maternal card	9	66.7	15.7	15	100	
Perinatal maternal medical history	9	44.4	16.6	15	100	
Sphygmomanometer	9	88.9	10.5	15	73.3	11.4
Standing scales	9	77.8	13.9	15	80	10.3
Stethoscope	9	88.9	10.5	15	86.7	8.8

\*Gynecological exam table not asked at ambulatory facilities

\*\*Missing data for six ambulatory facilities with a doctor due to problem in skip pattern of data collection program

According to the indicator relating to the continuous availability of supplies and equipment necessary for antenatal and postpartum care, UBAs are required to have at least one observed and functional unit of the following equipment: standing scales + stadiometer + gynecological exam table (at basic EONC level) + obstetrical tape + gooseneck or hand lamp + sphygmomanometer + stethoscope + perinatal maternal medical history + perinatal maternal card. Two ambulatory UBAs offer antenatal care services but were missing data for equipment in the antenatal care room, and therefore were not evaluated for this part of the indicator. In total, 26.7% of UBAs met the equipment requirements listed above. The components of this indicator are further detailed in Table 6.2.2.

**Table 6.2.2** Observed and functional ANC - PPC equipment in UBAs

Equipment type	UBA		
	N	%	SE
Gynecological exam table	15	66.7	12.2
Gooseneck lamp or hand lamp	15	40	12.6
Obstetrical tape	15	53.3	12.9
Perinatal maternal card	15	100	
Perinatal maternal medical history	15	100	
Sphygmomanometer	15	73.3	11.4
Stadiometer	15	46.7	12.9
Standing scales	15	80	10.3
Stethoscope	15	86.7	8.8
All equipment observed and functional	15	26.7	11.4

### 6.2.2 ANC - PPC pharmacy inputs

In the observation component of the survey, interviewers checked for certain pharmacy and lab inputs important for antenatal care services, namely Ayre's spatula, ferrous sulfate, and microscope slides.

**Table 6.2.3** ANC - PPC pharmacy inputs by facility classification

Pharmacy inputs	Ambulatory			Basic		
	N	%	SE	N	%	SE
Ayre's spatula*	6	66.7	19.3	15	80	10.3
Ferrous sulfate	15	33.3	12.2	15	100	
Microscope slides*	6	66.7	19.3	15	80	10.3

\*Not measured at ambulatory facilities without a doctor

According to the indicator relating to the continuous availability of supplies and equipment necessary for antenatal and postpartum care, UBAs are evaluated for the availability of Ayre's spatula, ferrous sulfate, and microscope slides on the day of the survey and no stock-out of ferrous sulfate in the previous three months. The percentage of UBAs that had each of these components is detailed by facility-level classification in Table 6.2.4. In total, 52.9% of UBAs met the pharmacy component of this indicator.

**Table 6.2.4 ANC - PPC pharmacy inputs in UBAs**

Pharmacy inputs	UBA					
	Ambulatory			Basic		
	N	%	SE	N	%	SE
Ayre's spatula	2	50	35.4	15	80	10.3
Ferrous sulfate	2	100		15	100	
Microscope slides	2	50	35.4	15	80	10.3
All inputs observed on the day of the survey	2	50	35.4	15	80	10.3
Continuous availability of pharmacy inputs in the previous three months*	2	50	35.4	15	53.3	12.9

\*Overall ANC pharmacy availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of ferrous sulfate

### 6.2.3 ANC - PPC composite indicator

When taking into consideration the availability and functionality of all equipment as well as the continuous availability of certain pharmacy and laboratory inputs detailed in previous sections, 17.6% of UBAs met the indicator for the continuous availability of supplies and equipment needed for antenatal and postpartum care. The broad components of this indicator are detailed in Table 6.2.5 below.

**Table 6.2.5 ANC – PPC composite indicator in UBA facilities**

Pharmacy inputs	UBA					
	Ambulatory			Basic		
	N	%	SE	N	%	SE
All equipment observed and functional*	n/a	n/a	n/a	15	26.7	11.4
Continuous availability of pharmacy inputs	2	50	35.4	15	53.3	12.9
Indicator according to the norm (meets above requirements)	2	50	35.4	15	13.3	8.8

\*Missing data for two ambulatory facilities

### 6.3 ANC - PPC medical record review

Records of women who received antenatal care in-facility in the last two years were selected systematically and reviewed. Table 6.3.1 shows the proportion of women who had their first ANC visit attended by a doctor or nurse, as well as the proportion of women who had their first ANC visit within 12 weeks of gestation. Gestational age was calculated from the dates recorded of last menstrual cycle and first ANC visit.

In total, 25.5% of women who received antenatal care at UBAs for a pregnancy in the last two years were attended by a doctor or nurse during their first trimester of pregnancy.

**Table 6.3.1** ANC during the first trimester in UBAs

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Doctor or nurse attended first ANC visit	14	100		123	82.9	3.4
First ANC visit before 12 weeks gestation	14	21.4	11.0	123	30.9	4.2
First ANC visit with a doctor or nurse during first 12 weeks of gestation	14	21.4	11.0	123	26	4.0

#### 6.4 Delivery care equipment and pharmacy inputs

In the observation component of the health facility survey, interviewers check for certain supplies and equipment necessary for delivery and newborn care. In order to meet criteria, health facilities should have all inputs for delivery and newborn care, and no stock-out of medications in the previous three months. 46.7% of basic facilities met the equipment requirement, and 7.1% had all required drugs available on the day of the survey and no recorded stock-out in the previous three months (Table 6.4.1 & Table 6.4.2).

**Table 6.4.1** Important equipment needed for delivery care

Equipment type	Basic		
	N	%	SE
Metallic Clamp or umbilical tape	15	86.7	8.8
Equipment p / serum c / macrodrip and microdrip	15	66.7	12.2
Infusion equipment	15	86.7	8.8
Intravenous catheter sterile N ° 18	15	93.3	6.4
Sterile fields or sheltering for a baby	15	60	12.6
Urinary catheter	15	86.7	8.8
All equipment observed and functional	15	46.7	12.9

**Table 6.4.2** Pharmacy inputs needed for delivery care

Pharmacy inputs	N	Basic	
		%	SE
Hyoscine bromide/Butylhyoscine	14	85.7	9.4
Plastic clamp or umbilical tape	14	92.9	6.9
Chloramphenicol eye drops / 1% silver nitrate	14	64.3	12.8
Ergonovine maleate/Ergometrine	14	21.4	11.0
Oxytocin	14	92.9	6.9
Ringer's lactate/Hartmann's solution/saline solution	14	100	
Vitamin K 1 mg	14	92.9	6.9
Continuous availability of pharmacy inputs in the previous three months*	14	7.1	6.9

\*Overall DEL pharmacy availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of plastic clamps/umbilical tape, oxytocin, & vitamin K

## 6.5 Delivery medical record review

### 6.5.1 Active management of delivery

During the review of delivery medical records in basic facilities, interviewers reported administration of 10 IU of intramuscular oxytocin after deliveries in the last two years. In total, 78.3% of records at basic level facilities reported the administration of oxytocin or another uterotonic after delivery.

## Chapter 7 MATERNAL & NEONATAL HEALTH: COMPLICATIONS

### 7.1 Emergency obstetric and neonatal care service provision

This chapter summarizes important equipment and pharmacy inputs related to the management of maternal and neonatal complications at the basic EONC level. Interviewers observed availability and functionality of equipment in the room designated for emergency obstetric and neonatal care and certain related drugs in the pharmacy section.

**Table 7.1.1** Emergency obstetric and neonatal care service provision

	N	Basic	
		%	SE
Emergency room			
Private room with visual and auditory privacy	13	92.3	7.4
Non-private room without auditory or visual privacy	13	7.7	7.4
Visual privacy only	13	0	
No privacy	13	0	
Don't provide this service	13	0	

\*Missing emergency room data for four basic facilities

### 7.2 Supplies and equipment needed for emergency obstetric and neonatal care

In the health facility survey observation module, interviewers checked availability and functionality of important inputs in the emergency obstetric and neonatal care room. As detailed in table 7.2.1, the least likely to be present in basic level facilities was the manual vacuum aspiration (MVA) kit.

**Table 7.2.1** Observed and functional equipment for emergency care

Equipment type	N	Basic	
		%	SE
Autoclave (or dry heat sterilizer)	14	50	13.4
Blood pressure apparatus	14	71.4	12.1
Laryngoscope	14	57.1	13.2
MVA kit	14	14.3	9.4
Oxygen tank	14	50	13.4
Portable Doppler (or Pinard's stethoscope)	14	50	13.4
Adult resuscitation bag	14	64.3	12.8
Neonatal resuscitation bag	14	71.4	12.1
Stethoscope	14	71.4	12.1

### 7.3 Important drugs needed for emergency obstetric and neonatal care

Interviewers also checked for the availability of certain drugs related to emergency obstetric and neonatal care in the pharmacy section. Table 7.3.1 details the percent of basic facilities that had each

drug on the day of the survey.

**Table 7.3.1** Drugs needed for emergency and neonatal care in basic level facilities

Drug availability	N	Basic	
		%	SE
Benzathine penicillin/ampicillin	14	100	
Calcium gluconate	14	57.1	13.2
Dexamethasone	14	57.1	13.2
Gentamicin/amikacin	14	92.9	6.9
Hydralazine ampoules	14	64.3	12.8
Magnesium sulfate	14	78.6	11.0
Metronidazole or clindamycin	14	92.9	6.9
Oxytocin	14	92.9	6.9

## Chapter 8 INFECTION CONTROL

### 8.1 Equipment for disposal and disposal methods

#### 8.1.1 Equipment for disposal

Staff at health facilities were asked about certain items available related to biohazard disposal, including incinerators, manuals that specify decontamination methods, and contracts with other facilities for biohazard disposal (Table 8.1.1).

**Table 8.1.1** Equipment for disposal

	Ambulatory				Basic			
	N	%	SE	DK/DR	N	%	SE	DK/DR
Incinerator at facility	21	9.5	6.4	0	17	0		0
Contract with other facility for biohazard disposal	19	0		0	16	0		1
Manual for decontamination	21	14.3	7.6	0	14	7.1	6.9	3

### 8.2 Decontamination and sterilization

Table 8.2.1 lists the different techniques used for decontaminating and sterilizing equipment.

**Table 8.2.1** Decontamination and sterilization

	Ambulatory			Basic		
	N	%	SE	N	%	SE
<b>Decontamination methods</b>						
Submerged in disinfectant, then scrubbed with a brush, soap and water	21	23.8	9.3	17	76.5	10.3
Scrubbed with a brush, soap and water, then submerged in disinfectant	21	4.8	4.7	17	5.9	5.7
Scrubbed with a brush, soap and water only	21	23.8	9.3	17	11.8	7.8
Submerged in disinfectant, without scrubbing with brush	21	0		17	0	
Cleaned with water and soap, without scrubbing with a brush	21	0		17	0	
Equipment never reused	21	23.8	9.3	17	0	
Other	21	19	8.6	17	0	
<b>Sterilization methods</b>						
Dry heat	21	0		17	5.9	5.7
Autoclave	21	0		17	52.9	12.1
Boiling	21	0		17	0	
Steam	21	9.5	6.4	17	0	
Chemical sterilization	21	4.8	4.7	17	0	
Processed away from facility	21	33.3	10.3	17	35.3	11.6
Facility doesn't sterilize	21	47.6	10.9	17	0	
Other	21	4.8	4.7	17	0	

## Appendix A: SM2015 Indicators

**Table A.1** Indicator matrix

Indicator values are displayed in the table below. Corresponding definitions for each indicator can be found in A.2.

SM2015 Indicators	N	%	SE
Facilities with 24/7 availability of a general physician at basic ENOC level facilities	15	60	12.6
Basic attention units (UBAs) with continuous availability of supplies needed for child care, immunization and nutrition	17	11.8	7.8
Basic attention units (UBAs) that have supplies of modern family planning methods (oral, injectable, barrier, IUD)	14	7.1	6.9
Basic attention units (UBAs) with continuous availability of supplies and equipment needed for antenatal and postpartum care	17	17.6	9.2
Women of reproductive age (15-49 years) who had their first antenatal care visit by a doctor or nurse before 12 weeks of gestation in the last two years.	137	25.5	3.7
Basic ENOC facilities with continuous availability of supplies and equipment needed for delivery care	14	7.1	6.9
Administration of 10 IU of intramuscular oxytocin	157	78.3	3.3
Health facilities with continuous availability of supplies needed for child care, immunization and nutrition for monitoring purposes	32	3.1	3.1
Health facilities that have supplies of modern family planning methods (oral, injectable, barrier, IUD) for monitoring purposes	26	19.2	7.7
Health facilities with continuous availability of supplies and equipment needed for antenatal and postpartum care for monitoring purposes*	22	4.5	4.4
Proportion of women of reproductive age (15-49) who received $\geq 4$ ANC visits by qualified personnel according to best practices for a birth in the last two years for monitoring purposes**	165	25.5	3.4
Health facilities with continuous availability of supplies and equipment needed for delivery care for monitoring purposes	14	14.3	9.4
Partograph revision for monitoring purposes	18	5.6	5.4

\* Lab equipment assessed at five of the thirteen basic ENOC level facilities

\*\*The following criteria was not included in the baseline data collection: edema, reflexes, uric acid in blood test, uric acid in urine test

## A.2 Indicator Definitions

### 1. Facilities with 24/7 availability of a general physician at basic EONC level facilities

Denominator:

Total number of basic health facilities in the sample.

Formula:

*Basic:* Number of health facilities with a general practitioner available 24/7

### 2. Basic attention units (UBAs) with continuous availability of supplies needed for child care, immunization and nutrition

Denominator:

Total number of UBA facilities that provide child care in the sample.

Formula:

*Ambulatory with a doctor:* No break in supply of the following inputs in the last three months (including the day of the survey): packers/envelopes of oral rehydration salt + zinc sulfate/zinc gluconate + albendazole/mebendazole + iron + vitamin A

*Basic:* No break in supply of the following inputs in the last three months (including the day of the survey): packers/envelopes of oral rehydration salt + zinc sulfate/zinc gluconate + albendazole/mebendazole + iron + vitamin A

### 3. Basic attention units (UBAs) that have supplies of modern family planning methods (oral, injectable, barrier, IUD)

Denominator:

Total number of UBA facilities that keep family planning methods in the sample.

Formula:

*Ambulatory with a doctor:* No break in supply of the following inputs in the last three months (including the day of the survey): male condom + any pill + any injectable

*Basic:* Observe the following on the day of the survey: IUD + IUD insertion kit. No break in supply of the following inputs in the last three months (including the day of the survey): male condom + any pill + any injectable.

### 4. Basic attention units (UBAs) with continuous availability of supplies and equipment needed for antenatal and postpartum care

Denominator:

Total number of UBA facilities that provide antenatal care services (and laboratory equipment for basic attention units) in the sample.

Formula:

*Ambulatory with a doctor:* Observe the following on the day of the survey: standing scale + stadiometer + obstetrical tape + gooseneck lamp/hand lamp + sphygmomanometer + stethoscope + perinatal maternal medical history + perinatal maternal card + Ayre' s spatula/swabs + microscope slides. No break in supply of the following inputs in the last three months (including the day of the survey): ferrous sulfate

*Basic:* Observe the following on the day of the survey: standing scale + stadiometer + gynecological exam table + obstetrical tape + gooseneck lamp/hand lamp + sphygmomanometer + stethoscope + perinatal maternal medical history + perinatal maternal card + ayre spatula/swabs + microscope slides. No break in supply of the following inputs in the last three months (including the day of the survey): ferrous sulfate

**5. Women of reproductive age (15-49) who had their first antenatal care visit by a doctor or nurse before 12 weeks of gestation in the last two years:**

Denominator:

Total number of antenatal records in the sample.

Formula:

*Ambulatory:* First ANC visit performed by a doctor/nurse + (date of 1<sup>st</sup> ANC visit – date of last menstrual period = before 12 weeks gestation)

*Basic:* First ANC visit performed by a doctor/nurse + (date of 1<sup>st</sup> ANC visit – date of last menstrual period = before 12 weeks gestation)

**6. Basic EONC facilities with continuous availability of supplies and equipment needed for delivery care**

Denominator:

Total number of basic health facilities in the sample.

Formula:

*Basic:* Observe the following on the day of the survey: equipment p/serum c/macrodrip and microdrip + sterile fields or sheltering for a baby + intravenous catheter sterile N ° 18 + infusion equipment + urinary catheter + metallic clamp/umbilical tape + ergonovine maleate/ergometrine + hyoscine bromide/butylhyoscine + Ringer's lactate/Hartmann's solution/saline solution + Chloramphenicol eye drops/1% silver nitrate. No break in supply of the following inputs in the last three months (including the day of the survey): plastic clamp/umbilical tape + oxytocin + vitamin K

**7. Administration of 10 IU of intramuscular oxytocin**

Denominator:

Total number of delivery records in the sample.

Formula:

*Basic:* Application of oxytocin (or any other uterotonic) after delivery

## 8. Health facilities with continuous availability of supplies needed for child care, immunization and nutrition for monitoring purposes

### Denominator:

Total number of health facilities that provide child care in the sample.

### Formula:

*Ambulatory without a doctor:* Observe the following on the day of the survey: infant scale + pediatric scale + stadiometer + stethoscope + growth and development card + thermometer+ pentavalent/ (Hepb + DPT + Hib) vaccine + rotavirus vaccine + pneumococcal conjugate vaccine + ferrous sulfate. No break in supply of the following inputs in the last three months (including the day of the survey): MMR vaccine + BCG vaccine + packets/envelopes of oral rehydration salt + albendazole/mebendazole

*Ambulatory with a doctor:* Observe the following on the day of the survey: infant scale + pediatric scale + stadiometer + stethoscope + growth and development card + thermometer+ pentavalent/ (Hepb + DPT + Hib) vaccine + rotavirus vaccine + pneumococcal conjugate vaccine + ferrous sulfate + antibiotics (ampicillin/benzathine penicillin/erythromycin). No break in supply of the following inputs in the last three months (including the day of the survey): MMR vaccine + BCG vaccine + packets/envelopes of oral rehydration salt + albendazole/mebendazole

*Basic:* Observe the following on the day of the survey: infant scale + pediatric scale + stadiometer + pediatric stethoscope + pediatric tensiometer + pentavalent/ (Hepb + DPT + Hib) vaccine + rotavirus vaccine + pneumococcal conjugate vaccine + ferrous sulfate + antibiotics (ampicillin/amoxicillin/crystalline penicillin) + Ringer's lactate/Hartmann's solution/saline solution. No break in supply of the following inputs in the last three months (including the day of the survey): MMR vaccine + BCG vaccine + packets/envelopes of oral rehydration salt + albendazole/mebendazole

## 9. Health facilities that have supplies of modern family planning methods (oral, injectable, barrier, IUD) for monitoring purposes

### Denominator:

Total number of UBA facilities that keep family planning methods in the sample.

### Formula:

*Ambulatory:* No break in supply of the following inputs in the last three months (including the day of the survey): male condom + any pill + any injectable

*Basic:* Observe the following on the day of the survey: IUD + IUD insertion kit. No break in supply of the following inputs in the last three months (including the day of the survey): male condom + any pill + any injectable.

## 10. Health facilities with continuous availability of supplies and equipment needed for antenatal and postpartum care for monitoring purposes

### Denominator:

Total number of health facilities that provide antenatal and postpartum care services (and laboratory equipment for basic facilities) in the sample.

### Formula:

*Ambulatory without a doctor:* Observe the following on the day of the survey: standing scale + stadiometer + gynecological exam table + obstetrical tape + gooseneck lamp/hand lamp + sphygmomanometer + stethoscope + perinatal maternal medical history + perinatal maternal card. No break in supply of the following inputs in the last three months (including the day of the survey): multivitamin/ (iron + folic acid) + tetanus vaccine (if the facility stores vaccines)

*Ambulatory with a doctor:* Observe the following on the day of the survey: standing scale + stadiometer + gynecological exam table + obstetrical tape + gooseneck lamp/hand lamp + sphygmomanometer + stethoscope + IUD insertion kit + perinatal maternal medical history + perinatal maternal card + ayre spatula/swabs + microscope slides + antibiotics (ampicillin/benzathine penicillin/erythromycin) + nitrofurantoin. No break in supply of the following inputs in the last three months (including the day of the survey): multivitamin/ (iron + folic acid) + tetanus vaccine (if the facility stores vaccines)

*Basic:* Observe the following on the day of the survey: standing scale + stadiometer + gynecological exam table + obstetrical tape + gooseneck lamp/hand lamp + sphygmomanometer + stethoscope + IUD insertion kit + perinatal maternal medical history + perinatal maternal card + ayre spatula/swabs + microscope slides + nitrofurantoin + cephalixin + rapid syphilis test/dark field microscope/enzyme immunoassay kit + HIV/AIDS test/fluorescent microscope + test strips for protein in urine/urinalysis equipment + test strips for glucose in blood/glucometer + HemoCue/automatic cell counter + microscope + pregnancy test + blood type antibodies + Rh group. . No break in supply of the following inputs in the last three months (including the day of the survey): multivitamin/ (iron + folic acid) + tetanus vaccine (if the facility stores vaccines)

## 11. Proportion of women of reproductive age (15-49) who received $\geq 4$ ANC visits by qualified personnel according to best practices for a birth in the last two years for monitoring purposes

### Denominator:

Total number of antenatal records in the sample.

### Formula:

*Ambulatory:* 4 ANC visits with the following: (1) a doctor/nurse at each visit, (2) physical checkups at each visit (weight + blood pressure + fundal height + pulse), (3) fetal checkups at each visit if the fetus is over 20 weeks (fetal movement + fetal heart rate), (4) laboratory tests performed at least once (blood type + Rh test + blood glucose level + HIV test + platelet count + VDRL + Hb level + urinalysis)

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weeks (fetal movement + fetal heart rate), (4) laboratory tests performed at least once (blood type + Rh test + blood glucose level + VDRL + Hb level + urinalysis)

## 12. Health facilities with continuous availability of supplies and equipment needed for delivery care for monitoring purposes

### Denominator:

Total number of basic health facilities in the sample.

### Formula:

*Basic:* Observe the following on the day of the survey: equipment p/serum c/macro drip and micro drip + sterile fields or sheltering for a baby + nasogastric tube K33 + intravenous catheter sterile N ° 18 + metallic clamp/umbilical tape + ergonovine maleate/ergometrine/oxytocin + povidone-iodine + c syringe/insulin syringe + lidocaine/epinephrine + hyoscine bromide/butylhyoscine + Ringer's lactate/Hartmann's solution/saline solution + chloramphenicol eye drops/1% silver nitrate. No break in supply of the following inputs in the last three months (including the day of the survey): plastic clamp/umbilical tape + oxytocin + vitamin K

## 13. Partograph revision for monitoring purposes

### Denominator:

Total number of SURCO records in the sample.

### Formula:

*Basic:* Observe the following in the record: fetal heart rate + observation of membranes + observation of amniotic fluid + evolution of cervical dilation + evolution of cephalic descent + evolution of fetal presentation + contractions + fetal evaluation + mother's pulse + mother's blood pressure + mother's temperature + action taken (if the fetal heart rate is decreased) + reason for referral (if the woman was referred)