

SM2015 – Panama

18-Month Health Facility

Final Report

December 2014



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This Final Report on the *Salud Mesoamérica 2015* (SM2015) 18-month Panama Health Facility Survey was produced in agreement with the Inter-American Development Bank (IDB). All analysis and writing were conducted by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington.

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 better informed decision-making and higher achievement in health. To that end, we strive to build the 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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Acknowledgements

We would like to extend our gratitude to UNIMER for their implementation of data collection in Panama for this project.

Chapter 1 SURVEY METHODOLOGY

1.1 Overview

Salud Mesoamérica 2015 (SM2015) is a regional public-private partnership that brings together Mesoamerican governments, private foundations, and bilateral and multilateral donors with the purpose of reducing health inequalities affecting the poorest 20 percent of the population in the region. Funding focuses on supply- and demand-side interventions, including 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 performance measurement and enhanced transparency and accountability. The initiative focuses its resources on integrating key interventions aimed at reducing health inequalities that stem from the lack of access to reproductive, maternal and neonatal health services (including immunization and nutrition services) for the poorest quintile of the population.

The objectives of the SM2015 evaluation are to assess whether countries are reaching the indicator targets set by the initiative and to evaluate the impact of specific interventions. In Panama, baseline data were collected at households and health facilities in intervention areas. The 18-month follow-up data collection took place at health facilities only. Upcoming data collection will occur at 36 months at both households and health facilities. This document describes the 18-month follow-up performance indicator results 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. The pairing of the two types of surveys is a defining and innovative feature designed to most accurately capture select key indicators. In general terms, the objectives of the health facility survey are to assess facility conditions, evaluate service provision and utilization, and measure quality of care. The medical record review (MRR) is implemented to collect retrospective data on facilities' treatment practices. They also assess the medical care provided before, during, and after normal deliveries. Importantly, this survey captures changes produced by interventions at the level of the health services access point, the health facility, which may foretell changes in population health outcomes. The 18-month health facility survey, recounted in this report, conducted follow-up measurements of various health indicators with the aim of monitoring changes in those indicators.

1.3 Contents and methods for data collection

1.3.1 Contents of the 2014 baseline Panama health facility survey

The 18-month health facility survey includes three components: an interview questionnaire, an observation checklist, and medical record reviews. The questionnaire captures information reported by the facility director, manager, or person otherwise in charge of the health facility. The checklist captures the direct observations of the surveyors at the time of the survey using a checklist of items to observe, and in the case of some inputs, 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 facilities' treatment practices. Across survey components, 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 availability, 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 DataStat Illume and installed onto computer netbooks which are used by the surveyors throughout all data collection components. 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, maintaining a logical answering pattern across different questions, and decreasing data entry errors. Uploading of data occurred several times a week, allowing for rigorous data quality assurance measures to be applied.

1.4 Sampling

All Ministry of Health facilities serving the areas covered by the SM2015 Initiative were included in the 18-month evaluation. The census was to include 41 facilities that offer ambulatory and basic emergency 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. During data collection, two ambulatory facilities were observed to be temporarily or permanently closed, reducing the final list of facilities to 39. The census contains a subgroup of both ambulatory and basic facilities that are classified as basic attention units (UBAs). Of the 39 facilities surveyed, 19 are classified as UBAs, which consist of all 17 basic facilities and 2 ambulatory mobile units with a doctor. All performance indicators detailed in this report apply only to UBA facilities.

For the medical record review, a systematic sampling method was used to select antenatal, delivery, and postpartum care records in each facility. Interviewers were instructed to select records at each facility following a systematic sampling strategy. Records for deliveries, antenatal and postpartum care were selected according to a quota set considering the 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

Training sessions and health facility pilot surveys were conducted in Panama in September 2014. The 4 surveyors had medical backgrounds (physicians and nurses) and underwent training. The training included an introduction to the initiative, proper conduct of the survey, in-depth review of the instrument, and hands-on training with the CAPI software. Training was followed by a three-day pilot of all components of the survey at currently operating 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 implementation 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 IHME. IHME monitored collected data on a continuous basis and provided feedback. Suggestions, surveyor feedback, and any modifications were incorporated into the health facility instruments and readily transmitted to the field.

1.5.4 Data analysis and report writing

Data analysis was conducted at IHME. Analysis was done using STATA version 13.1. Performance indicators were calculated at IHME following the indicator definition provided by IDB. This report provides detailed information on data collected during the 18-month evaluation at all 39 health facilities as well as uses the performance indicators of the 19 UBA facilities from the baseline and follow-up for comparison.

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

2.1 General description

2.1.1 Health facility classification

A total of 39 facilities in intervention areas were surveyed for the 18-month evaluation. One ambulatory facility from the sample was visited during the pilot. Due to the small sample size, this facility was included for analysis.

Of the 39 evaluated facilities, there was a total of 19 basic attention units (UBAs) consisting of 17 basic EONC facilities and two ambulatory EONC mobile units. All performance indicators in Panama are calculated at the UBA level. These UBA health units are broken down separately by facility EONC classification and facility type in Tables 2.1.1b and 2.1.1c.

Table 2.1.1a Health facility classification

	Baseline	18-Month
Ambulatory	21	22
Basic	17	17
Total	38	39

Table 2.1.1b UBA health facility classification

	UBA	
	Baseline	18-Month
Ambulatory	2	2
Basic	17	17
Total	19	19

Table 2.1.1c Type of health facility

	Baseline	18-Month
Health center with hospitalization	7	7
Health post	3	3
Health sub center	5	5
Mobile Unit	2	2
Rural hospital	2	2
Total	19	19

2.1.2 Geographical representation

Health facilities surveyed for the 18-month evaluation were located in two municipalities (Table 2.1.2a). In total, 19 facilities were located in the Emberá region and 20 facilities were located in the Kuna Yala region.

Table 2.1.2a All facilities by municipality and EONC level

Region	18-Month		
	Ambulatory	Basic	Total
Emberá	16	3	19
Kuna Yala	6	14	20
Total	22	17	39

Table 2.1.2b Basic attention units (UBAs) by municipality and EONC level

Region	18-Month		
	Ambulatory	Basic	Total
Emberá	1	3	4
Kuna Yala	1	14	15
Total	2	17	19

2.1.3 Medical record extraction

The 18-month health facility survey included a review of 863 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. Table 2.1.3a details the number of medical records collected by all facilities and Table 2.1.3b details the number of medical records collected by UBA facilities. In total, 821 of the 863 medical records collected were from a UBA facility.

Table 2.1.3a Number of medical records by facility classification (EONC level)

	18-Month		
	Ambulatory	Basic	Total
Antenatal care	55	314	369
Delivery	0	249	249
Postpartum care	0	245	245
Total medical records	55	808	863

Table 2.1.3b Number of UBA medical records by facility classification (EONC level)

	18-MONTH (UBA)		
	Ambulatory	Basic	Total
Antenatal care	13	314	327
Delivery	0	249	249
Postpartum care	0	245	245
Total medical records	13	808	821

2.1.4 Referrals

In response to the question, “Do you usually receive referred patients from another health facility?” 9.1% of ambulatory and 52.9% of basic facilities reported receiving referred patients from other facilities. 100% of ambulatory and basic facilities reported sending or referring patients to other health

units.

2.1.5 Governing authority

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

2.2 Basic infrastructure

2.2.1 Electricity and Water

In the health facility questionnaire, facility managers are asked about sources of electricity and water serving the facility. At the ambulatory level, 45.5% reported having a functional electricity source. At the basic level, 100% of facilities reported having a functional electricity source and 76.5% of these facilities reported having a solar generator. Many facilities reported “electric plant” in the “other” category as a source serving the facility. The most common sources of water for both ambulatory and basic facilities included river water and water piped into the facility. It is important to note that during baseline data collection many facilities reported river water in the ‘other’ option because it was not available in the survey. When added as an alternate water source during 18-month data collection, approximately half of ambulatory and basic units reported this as a source of water. The majority of facilities simply reported that the facility did not have water when they selected the ‘other’ option below. Table 2.2.1 details the sources of electricity and water available at facilities. 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	22	45.5	10.6	17	100	
Source of electricity						
Central supply	10	50.0	15.8	17	23.5	10.3
Private supply	10	10.0	9.5	17	11.8	7.8
In-facility generator	10	0		17	0	
Solar generator	10	50.0	15.8	17	76.5	10.3
Public Network	10	30.0	14.5	17	0	
Other source	10	20.0	12.6	17	35.3	11.6
DK/DR	0			0		
Source of water						
Piped into facility	22	13.6	7.3	17	52.9	12.1
Public well	22	9.1	6.1	17	0	
Facility well	22	4.5	4.4	17	5.9	5.7
Unprotected well	22	0		17	0	
Hand pump	22	4.5	4.4	17	0	
Bottled water	22	0		17	0	
Tanker or pipe	22	0		17	0	
Rain water	22	40.9	10.5	17	5.9	5.7
River	22	54.5	10.6	17	47.1	12.1
Other	22	31.8	9.9	17	41.2	11.9
DK/DR	0			0		

2.2.2 Internet access

Only 5.9% of basic facilities reported that they had internet access and 0% of ambulatory facilities reported the same.

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 2.4.1) details the personnel composition in ambulatory health facilities. Ambulatory facilities were asked about personnel in two separate questions, one referring to general staff and the other referring to specialized staff. As shown in the table below, personnel are limited in both health units with and without a doctor. In the “other” category, many facility representatives reported having a health assistant. The mean in Table 2.3.1 represents the average number of personnel reported per category. On average, there were 0.3 health promoters and auxiliary nurses per ambulatory facility without a doctor. In total, there were only 1.2 people on staff at ambulatory facilities without a doctor, including both general and specialized staff.

Ambulatory health units that 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 1.7 auxiliary nurses, 1.3 general physicians, and 0.7 nurses per ambulatory facility with a doctor. In total, there are only 1.2 people employed on average at an ambulatory facility without a doctor, including general and specialty staff.

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	19	0		3	1.3	0.6
Pediatrician	19	0		3	0	
Nutritionist	19	0.1	0.2	3	0.3	0.6
Pharmacist	19	0.1	0.3	3	0.3	0.6
Nurse	19	0.1	0.2	3	0.7	0.6
Auxiliary nurse	19	0.3	0.6	3	1.7	0.6
Midwife	19	0.1	0.2	3	0	
Social worker	19	0		3	0	
Laboratory technician	19	0		3	0	
Health promoter	19	0.3	0.6	3	0	
Other	19	0.5	0.5	3	0	
Specialists						
Internist	19	0		3	0	
Gynecologist	19	0		3	0	
Surgeon	19	0		3	0	
Anesthesiologist	19	0		3	0	
Emergency medical technician	19	0		3	0	
Radiology technician	19	0		3	0	
Ambulance driver/polyvalent	19	0		3	0.3	0.6
Other specialist	19	0		3	0	

2.3.2 Personnel in basic facilities

Table 2.3.2 details the number of personnel reported per category in basic level facilities. Basic facilities were asked about personnel in two separate questions, one referring to general staff and the other referring to specialized staff. On average, there were 1.8 general physicians, 1.8 auxiliary nurses, 1.7 nurses, and 0.7 health promoters per basic level facility. In the “other” category of the first personnel question, answers ranged from typist to dentist or statistician. In the “other” category of the second question referring to specialists, answers also ranged from boat chauffeur to nutrition technician or statistician.

Table 2.3.2 Personnel composition in basic health units

Personnel type	N	Basic	
		mean	SE
General physician	17	1.8	0.9
Pediatrician	17	0	
Nutritionist	17	0.2	0.4
Pharmacist	17	0.5	0.7
Nurse	17	1.7	1.5
Auxiliary nurse	17	1.8	1.5
Midwife	17	0.1	0.2
Social worker	17	0	
Laboratory technician	17	0.5	0.5
Health promoter	17	0.7	0.5
Other	17	0.3	0.5
Specialists			
Internist	17	0	
Gynecologist	17	0	
Surgeon	17	0	
Anesthesiologist	17	0	
Emergency medical technician	17	0	
Radiology technician	17	0	
Ambulance driver/polyvalent	17	0.8	1.0
Other specialist	17	0.2	0.4

2.3.3 24/7 Availability of staff

Interviewers asked representatives at UBA facilities about availability of services and staff for 24 hours a day and 7 days a week. In total, 89.5% of UBA facilities reported providing services 24/7 (including weekends and holidays). When asked if a general physician was available on call 24/7, 63.1% of all UBA facilities responded “Yes, everyday including weekends and holidays” and 36.8% responded “No”. When asked if a nurse was available on call 24/7, 57.9% of all UBA facilities responded “Yes, everyday including weekends and holidays”, 5.3% responded “Yes, but only Monday to Friday and not on weekends or holidays, or only occasionally”, and 36.8% responded “No”.

According to the performance indicator related to availability of a doctor or nurse (7192), all basic level facilities should have either a doctor or nurse available in facility or on call 24/7. The percentage of basic facilities that meet this indicator is further detailed in Table 2.3.3.

Table 2.3.3 24/7 availability of a doctor or nurse in basic facilities

Employee	BASIC					
	BASELINE			18-MONTH		
	N	%	SE	N	%	SE
General MD	15	60.0	12.7	17	64.7	11.6
Nurse*	n/a	n/a	n/a	17	58.8	11.9
24/7 availability of a general MD/nurse	15	60.0	12.7	17	76.5	10.3

*24/7 availability of a nurse was not measured or included in the baseline indicator

Chapter 3 CHILD HEALTH

3.1 Child services offered – a 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.

Table 3.1.1 Child health care services provision

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Unit offers child services	22	95.5	4.4	17	100	
Unit vaccinates children under 5	22	81.8	8.2	17	100	
Child care room						
Private room with visual and auditory privacy	22	72.7	9.5	17	94.1	5.7
Non-private room without auditory or visual privacy	22	13.6	7.3	17	0	
Visual privacy only	22	4.5	4.4	17	5.9	5.7
No privacy	22	4.5	4.4	17	0	
Don't provide such services	22	4.5	4.4	17	0	
Other	22	0		17	0	

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. Items were observed by the surveyors, rather than merely reported by facility staff. Table 3.2.1 displays medical equipment related to child health care in facilities that provide child care services and were required for the child health care monitoring indicator (7010M). It is important to note that the equipment listed below was measured only for monitoring purposes and is not included in the performance indicator regarding child care.

Table 3.2.1 Child health care equipment observed and functional in all facilities (7010M)

	18-MONTH					
	Ambulatory			Basic		
	N	%	SE	N	%	SE
Infant scale	21	61.9	10.6	17	100	
National vaccination / growth card**	21	90.5	6.4	n/a	n/a	n/a
Oral/Axillary thermometer**	21	85.7	7.6	n/a	n/a	n/a
Pediatric stethoscope*	n/a	n/a	n/a	17	58.8	11.9
Pediatric tensiometer*	n/a	n/a	n/a	17	35.3	11.6
Standing balance or scale for children	21	81	8.6	17	100	
Stethoscope**	21	90.5	6.4	n/a	n/a	n/a
Tallimeter	21	100		17	100	
All equipment observed & functional	21	42.9	10.8	17	35.3	11.6

*Item was not required at ambulatory facilities as part of the 7010 monitoring indicator

**Item was not required at basic facilities as part of the 7010 monitoring indicator

3.3 Important drugs, supplements and vaccines

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 displays pharmacy inputs related to child health care in facilities that provide child care services and were required for the child health care performance indicator (7010). This performance indicator only measured basic facilities with child care. Tables 3.3.2 and 3.3.3 display pharmacy inputs related to child health care in all facilities that provide child care services and were required for the child health care monitoring indicator (7010M). This monitoring indicator evaluates ambulatory facilities with and without a doctor separately on their availability of certain pharmacy inputs necessary in providing child health care.

According to both child health indicators, all drugs should have continuous availability (no stock out in the previous three months) of all inputs. Basic facilities showed the largest improvement in their availability of vitamin A and zinc on the day of the survey in the performance indicator (Table 3.3.1). 100% of basic facilities had vitamin A on the day of the survey and 94.1% had zinc on the day of the survey. This increased the total drug availability on the day of the survey to be 88.2% and continuous availability increased from only 13.3% at the baseline to 82.4% during 18-month data collection. The pharmacy components of each indicator are further detailed in Tables 3.3.1 - 3.3.3.

Table 3.3.1 Child health care observed drugs and supplements in basic facilities (7010)

Pharmacy inputs	BASIC					
	BASELINE			18-MONTH		
	N	%	SE	N	%	SE
Albendazole / Mebendazole	15	100		17	100	
Iron	15	100		17	100	
Packets / Envelopes of oral rehydration salt	15	93.3	6.4	17	94.1	5.7
Vitamin A	15	20.0	10.3	17	100	
Zinc sulfate / Zinc oxide / Zinc gluconate*	15	13.3	8.8	17	94.1	5.7
All drugs available on the day of the survey	15	13.3	8.8	17	88.2	7.8
Continuous availability of all drugs in the previous three months**	15	13.3	8.8	17	82.4	9.2

*Zinc oxide was not measured or included as an alternative in the baseline indicator

**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

Table 3.3.2 Child health care observed drugs and supplements in ambulatory facilities (7010M)

	18-MONTH					
	Ambulatory without doctor			Ambulatory with doctor		
	N	%	SE	N	%	SE
Albendazole / Mebendazole	18	55.6	11.7	3	100	
Antibiotics* **	n/a	n/a	n/a	3	100	
Ferrous sulfate / micronutrients for children	18	55.6	11.7	3	100	
Packets / Envelopes of oral rehydration salt / vida suero	18	55.6	11.7	3	100	
All drugs available on the day of the survey	18	44.4	11.7	3	100	
Continuous availability of all drugs in the previous three months***	18	38.9	11.5	3	100	

*Item was not required at ambulatory facilities without a doctor part of the 7010 monitoring indicator

**Antibiotics were defined as Ampicillin / Benzathine penicillin / Erythromycin for ambulatory facilities without a doctor

***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

Table 3.3.3 Child health care observed drugs and supplements in basic facilities (7010M)

	18-MONTH		
	Basic		
	N	%	SE
Albendazole / Mebendazole	17	100	
Antibiotics*	17	100	
Ferrous sulfate / micronutrients for children	17	100	
Ringer lactate / Hartmann / Saline solution**	17	100	
Packets / envelopes of oral rehydration salt / vida suero	17	94.1	5.7
All drugs available on the day of the survey	17	94.1	5.7
Continuous availability of all drugs in the previous three months***	17	94.1	5.7

*Antibiotics were defined as Ampicillin / Amoxicillin / Crystalline penicillin for basic facilities

**Only required at basic facilities as part of the 7010 monitoring indicator

***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

Vaccine availability and stock out was also measured in relation to child health care in facilities that provide child care services and store vaccines. The vaccines listed in Table 3.3.4 were measured in the child health care monitoring indicator (7010M).

Table 3.3.4 Child health care observed vaccines in all facilities (7010M)

Vaccine type	Ambulatory			Basic		
	N	%	SE	N	%	SE
BCG	6	83.3	15.2	16	81.3	9.8
Influenza	6	83.3	15.2	16	81.3	9.8
MMR	6	50.0	20.4	16	81.3	9.8
Pentavalent / (DPT + HepB + Hib)	6	83.3	15.2	16	93.8	6.1
Pneumococcal conjugate	6	83.3	15.2	16	75.0	10.8
Polio	6	100		16	75.0	10.8
Rotavirus	6	100		16	81.3	9.8
BCG stockout*	5	0		13	7.7	7.4
MMR stockout*	3	0		13	7.7	7.4
Vaccine availability**	6	0		16	6.3	6.1

*Availability of input in the previous three months if it was observed on the day of the survey

**Overall drug availability including availability of all inputs on the day of the survey and no stock out in the previous three months of BCG & MMR

3.4 Education material

Table 3.4.1 lists educational material observed either as cards handed to the caretaker or as illustration of disease management flowcharts hung on the unit walls in facilities that offer child care. All basic facilities provided educational material regarding child health education and awareness.

Table 3.4.1 Child health education and awareness

Education material	Ambulatory			Basic		
	N	%	SE	N	%	SE
Materials on child growth and child development	21	42.9	10.8	17	100	
Materials on danger signs and symptoms of children	21	47.6	10.9	17	100	

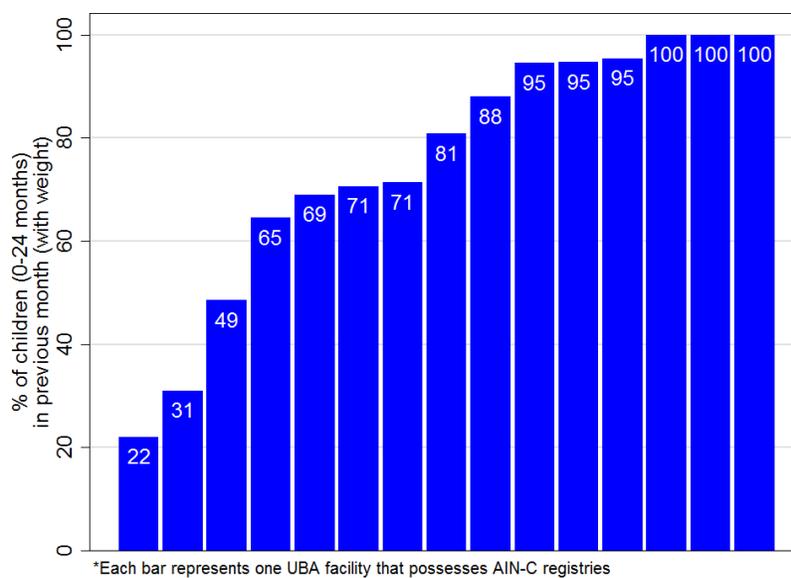
3.5 UBA monthly AIN-C with 80% of children under 24 months with weight

According to the indicator related to AIN-C (7710), UBA facilities that possess both a nominal census and monthly AIN-C registry should retain at least 80% of children under 24 months (recorded with weight) for the month of August 2014. Table 7.3.1 displays the number of facilities that retained 80% of children recorded with weight in the August 2014 AIN-C registry and Figure 7.3.2 displays the percent of children retained in the previous month with weight at each individual UBA facility.

Table 3.5.1 Children under 24 months found in the previous month (August 2014) with weight

AINC Indicator	UBA		
	N	%	SE
UBA facilities that possess monthly AIN-C registries in which 80% of children under 24 months are registered with weight	15	53.3	12.9

Figure 3.5.2 Percent of children under 24 months (with weight) found in the previous month at each UBA facility (where applicable)



Chapter 4 VACCINES

4.1 Vaccination services

This chapter summarizes the types of vaccines and storage methods in all facilities. When asked about vaccination services, 81.8% of ambulatory and 100% of basic health facilities report that they vaccinate children.

Table 4.1.1 Vaccination services

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Unit vaccinates children under 5	22	81.8	8.2	17	100	
Immunization room						
Private room with visual and auditory privacy	22	50.0	10.7	17	100	
Non-private room without auditory or visual privacy	22	13.6	7.3	17	0	
Visual privacy only	22	4.5	4.4	17	0	
Don't provide such services	22	27.3	9.5	17	0	
Other	22	4.5	4.4	17	0	

4.2 Vaccine logistics

4.2.1 Storage

In the questionnaire component of the survey, interviewers asked facility representatives about vaccine storage. Of the facilities that provide immunization services for children under 5, 44.4% of ambulatory units have vaccines delivered when services are being provided while only 33.3% store vaccines in the facility (Table 4.2.1). It is important to note that 58.8% of ambulatory facilities reported storing vaccines in the facility in the baseline, but only 33.3% reported the same at 18-months. 100% of basic facilities store vaccinations in the unit.

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
Storage						
Stored in facility	18	33.3	11.1	17	100	
Picked up from another facility	18	16.7	8.8	17	0	
Delivered when services are being provided	18	44.4	11.7	17	0	
None of the above	18	5.6	5.4	17	0	
Ordering Strategy						
Determines own needs	6	100		17	100	
Need determined elsewhere	6	0		17	0	
Both(differ by vaccine)	6	0		17	0	
Quantity to order strategy						
Order same amount	7	100		17	100	
Different per vaccine	7	0		17	0	
Time to order strategy						
Fixed time, > once/week	7	100		17	82.4	9.3
Fixed time, < once/week	7	0		17	0	
Order when needed	7	0		17	17.6	9.3
Time to receive supplies						
< 1 week	6	100		17	82.4	9.3
1-2 weeks	6	0		17	17.6	9.3
> 2 weeks	6	0		17	0	
Reception of quantity ordered						
Always	6	66.7	19.3	17	52.9	12.1
Almost always	6	33.3	19.3	17	47.1	12.1
Almost never	6	0		17	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 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	16	75.0	10.8
Polio	6	100		16	75.0	10.8
MMR	6	50.0	20.4	16	81.3	9.8
Influenza	6	83.3	15.2	16	81.3	9.8
Rotavirus	6	100		16	81.3	9.8
Pneumococcal conjugate	6	83.3	15.2	16	75.0	10.8
BCG	6	83.3	15.2	16	81.3	9.8
Tetanus / toxoid tetanus diphtheria	6	100		16	81.3	9.8
Tdap	6	100		16	68.8	11.6
DPT alone*	1	0		4	75.0	21.6
HepB alone*	1	0		4	75.0	21.6
Hib alone*	1	0		4	75.0	21.6

*Only checked if pentavalent not available

**Pentavalent = DPT + HepB + HiB; MMR = Measles + Mumps + Rubella

***One basic facility reported storing vaccines in the facility, but the interviewer could not observe the vaccine registry

4.4 Cold chain

Facilities that either store vaccines or collect or have vaccines delivered from other health units were asked questions related to cold chain in the observation survey. 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 have at least one of each type of fridge or cold box observed and functional at the time of the survey. Solar and electric fridges were most common at both facility levels.

Table 4.4.1 Fridge availability

Storage	Ambulatory			Basic		
	N	%	SE	N	%	SE
Electric fridge	9	33.3	15.7	17	52.9	12.1
Kerosene fridge	9	0		17	0	
Gas fridge	9	0		17	11.8	7.8
Solar fridge	9	33.3	15.7	17	47.1	12.1
Cold box	9	88.9	10.5	17	70.6	11.1
Any of the above	9	88.9	10.5	17	100	

Chapter 5 FAMILY PLANNING

5.1 Service provision

This chapter summarizes key indicators related to family planning. In the questionnaire component of the survey, facility representatives are asked about service provision and logistics of ordering and receiving supplies. In the observation component of the survey, interviewers observe the stock of certain family planning methods in the previous 3 months.

As reported by facility representatives, only 31.8% of ambulatory facilities provide family planning services in-facility and 100% of basic facilities reported providing the same service (Table 5.1.1). 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. Table 5.1.2 displays contraceptive storage according to the questionnaire.

Table 5.1.1 Family planning (FP) services provision

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Offers FP services	22	31.8	9.9	17	100	
FP room						
Private room with visual and auditory privacy	22	18.2	8.2	17	94.1	5.71
Non-private room without auditory or visual privacy	22	0		17	0	
Visual privacy only	22	9.1	6.1	17	5.9	5.71
No privacy	22	4.5	4.4	17	0	
Other	22	4.5	4.4	17	0	

Table 5.1.2 Family planning (FP) storage

	Ambulatory			Basic		
	N	%	SE	N	%	SE
FP Storage						
Yes, stores contraceptives	14	42.9	13.2	17	100	
No, delivered when services are being provided	14	57.1	13.2	17	0	
Don't know/ decline to respond	8			0		

5.2 Observed contraception methods and reported family planning services

Table 5.3.1 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 with a doctor that provide family planning services, 40.0% 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
Observed FP methods						
Any pill	7	100		17	100	
Combined oral pill	7	100		17	100	
Progestin only pill	7	0		17	5.9	5.7
Any injectable	7	100		17	100	
Combined injectable (1 month)	7	100		17	100	
Progestin only injectable (3 months)	7	71.4	17.1	17	100	
Male condom	7	100		17	100	
Female condom	7	0		17	5.9	5.7
IUD*	7	28.6	17.1	17	100	
IUD insertion kit	n/a	n/a	n/a	17	94.1	5.7
Spermicide	7	0		17	0	
Diaphragm	7	0		17	5.9	5.7
Emergency contraception pill	7	0		17	5.9	5.7
Reported Services						
Offers pregnancy tests	7	71.4	17.1	17	88.2	7.8
Trained doctor to perform IUD insertion**	5	40.0	21.9	n/a	n/a	n/a
Trained doctor to perform tubal ligation	n/a	n/a	n/a	17	0	
Trained doctor to perform vasectomy	n/a	n/a	n/a	17	0	

*Intrauterine device

**Only applicable to ambulatory facilities with a doctor

5.3 Composite FP indicator

According to the country indicator manual, there is both a performance and monitoring indicator regarding family planning methods. The family planning performance indicator (7050) is displayed in Table 5.3.1 and requires UBA facilities that provide family planning to store family planning methods with no stock out in the last three months. The family planning monitoring indicator (7050M) is displayed in Table 5.3.2 and measures family planning methods to facilities who provide the service.

Table 5.3.1 Composite family planning performance indicator (7050)

Family planning methods	UBA					
	BASELINE			18-MONTH		
	N	%	SE	N	%	SE
Male condom	14	100		19	100	
Any pill	14	92.9	6.9	19	100	
Any injectable	14	85.7	9.4	19	100	
IUD*	14	42.9	13.2	17	100	
IUD insertion kit *	14	14.3	9.4	17	94.1	5.7
All items available on the day of the survey	14	7.1	6.9	19	94.7	5.1
Continuous availability of all methods in the previous three months**	14	7.1	6.9	19	78.9	9.4

*IUD & IUD insertion kit were only measured at basic facilities

**Overall availability including availability of all methods on the day of the survey and no stock out in the previous three months for all inputs excluding IUD insertion kit. IUD is missing in the baseline calculation for continuous availability.

Table 5.3.2 Composite family planning monitoring indicator (7050M)

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Condom	7	100		17	100	
Any pill	7	100		17	100	
Any injectable	7	100		17	100	
Intrauterine device (IUD)*	3	33.3	33.3	17	100	
IUD insertion kit**	n/a	n/a	n/a	17	94.1	5.9
All items available on the day of the survey	7	71.4	18.4	17	94.1	5.9
Continuous availability of all items in the previous three months***	7	57.1	20.2	17	82.4	9.5

*Item not required at ambulatory facilities without a doctor as part of the family planning (7050M) monitoring indicator

**Item not required at any ambulatory facilities as part of the family planning (7050M) monitoring indicator

***Overall availability including availability of all inputs on the day of the survey and no stock out in the previous three months for all inputs excluding the IUD insertion kit

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 STIs

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Individual FP counseling	7	100		17	100	
Group FP counseling	7	100		17	82.4	9.3
FP posters on walls of facility	7	57.1	18.7	17	82.4	9.3
STI/HIV posters on walls of facility	7	42.9	18.7	17	76.5	10.3

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 medical records in all facilities, as well as delivery and postpartum care medical records in facilities at the basic level.

In total, 36.8% of ambulatory facilities without a doctor reported offering antenatal care services and 100% of ambulatory facilities with a doctor provided the same service. 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 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	19	36.8	11.1	3	100	
ANC room						
Private room with auditory and visual privacy	12	83.3	10.8	3	33.3	27.2
Non-private room without auditory nor visual privacy	12	8.3	8.0	3	0	
Visual privacy only	12	8.3	8.0	3	0	
No privacy	12	0		3	33.3	27.2
Don't provide this service	7			0		

*The additional 33.3% of ambulatory facilities with a doctor reported 'Other' for the type of ANC room

At the basic level, 100% of facilities reported offering antenatal care and postpartum services. 94.1% of basic facilities also offered delivery services. Interviewers observed private rooms with auditory and visual privacy at all of the basic facilities (Table 6.1.2).

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

	Basic		
	N	%	SE
Offers ANC services	17	100	
Offers routine delivery services (non-urgent)	17	94.1	5.7
Offers PPC services	17	100	
ANC - PPC room			
Private room with auditory and visual privacy	17	100	
Non-private room without auditory nor visual privacy	17	0	
Visual privacy only	17	0	
No privacy	17	0	
Delivery room			
Private room with auditory and visual privacy	17	100	
Non-private room without auditory nor visual privacy	17	0	
Visual privacy only	17	0	
No privacy	17	0	

6.2 ANC - PPC equipment, pharmacy, & lab inputs

6.2.1 ANC - PPC equipment

Tables 6.2.1a and 6.2.1b display the percentage of facilities where specific ANC and PPC equipment was observed and functional on the day of the survey.

According to the country indicator manual, there is a performance and monitoring indicator regarding ANC - PPC equipment. The ANC – PPC performance indicator (7020) is displayed in Table 6.2.1a and measures the functional equipment used to provide ANC care at UBA facilities on the day of the survey. The ANC – PPC monitoring indicator (7020M) is displayed in Tables 6.2.1b & 6.2.1c and measures the functional equipment used to provide ANC care at all facilities on the day of the survey. This monitoring indicator evaluates ambulatory facilities with and without a doctor separately on their availability of certain equipment necessary in providing child health care.

Table 6.2.1a Observed and functional ANC - PPC equipment in UBA facilities (7020)

Equipment type	UBA			
	BASELINE		18-MONTH	
	N	%	N	%
Gynecological exam table*	15	66.7	17	100
Lamp gooseneck or hand lamp	15	40.0	19	100
Obstetrical tape	15	53.3	19	100
Perinatal maternal card	15	100	19	100
Perinatal maternal medical history	15	100	19	100
Sphygmomanometer	15	73	19	100
Standing scales	15	80.0	19	100
Stethoscope	15	86.7	19	100
Tallimeter / stadiometer	15	46.7	19	100
All equipment observed and functional	15	26.7	19	100

*Gynecological exam table was not measured at mobile units

Table 6.2.1b Observed and functional ANC - PPC equipment in ambulatory facilities (7020M)

Equipment type	18-MONTH					
	Ambulatory without doctor			Ambulatory with doctor		
	N	%	SE	N	%	SE
Gynecological exam table*	12	75.0	12.5	1	100	
IUD Kit*	n/a	n/a	n/a	3	66.7	27.2
Lamp gooseneck or hand lamp	12	25.0	12.5	3	100	
Obstetrical tape	12	66.7	13.6	3	100	
Perinatal maternal card	12	75.0	12.5	3	100	
Perinatal maternal medical history	12	75.0	12.5	3	100	
Sphygmomanometer	12	83.3	10.8	3	100	
Stadiometer	12	100		3	100	
Standing scales	12	66.7	13.6	3	100	
Stethoscope	12	83.3	10.8	3	100	
All equipment observed & functional	12	16.7	10.8	3	66.7	27.2

*Gynecological exam table was not measured at mobile units

**IUD kit was not required at ambulatory facilities without a doctor for the prenatal (7020) monitoring indicator

Table 6.2.1c Observed and functional ANC - PPC equipment in basic facilities (7020M)

Equipment type	18-MONTH		
	N	%	SE
Gynecological exam table	17	100	
IUD Kit	17	100	
Lamp gooseneck or hand lamp	17	100	
Obstetrical tape	17	100	
Perinatal maternal card	17	100	
Perinatal maternal medical history	17	100	
Sphygmomanometer	17	100	
Stadiometer	17	100	
Standing scales	17	100	
Stethoscope	17	100	
All equipment observed & functional	17	100	

6.2.2 ANC - PPC pharmacy inputs

In the observation component of the survey, interviewers checked for certain pharmacy inputs important for antenatal care services. According to the country indicator manual, there is both a performance and monitoring indicator regarding ANC - PPC pharmacy inputs. The ANC – PPC performance indicator (7020) is displayed in Table 6.2.2a and measures pharmacy inputs with no stock out in the last three months only for UBA facilities that provide ANC care. The ANC – PPC monitoring indicator (7020M) is displayed in Tables 6.2.2b & 6.2.2c and measures pharmacy inputs with no stock out in the last three months for all facilities that provide ANC care. This monitoring indicator evaluates ambulatory facilities with and without a doctor separately on their availability of certain equipment necessary in providing child health care.

Table 6.2.2a ANC - PPC pharmacy inputs for UBA facilities (7020)

Pharmacy inputs	UBA					
	BASELINE			18-MONTH		
	N	%	SE	N	%	SE
Ayre palletes / swabs	17	76.5	10.3	19	100	
Ferrous sulfate	17	100		19	100	
Microscope slides	17	76.5	10.3	19	100	
All inputs observed on the day of the survey	17	76.5	10.3	19	100	
Continuous availability of all drugs in the previous three months*	17	52.9	12.1	19	100	

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

Table 6.2.2b ANC - PPC pharmacy inputs for ambulatory facilities (7020M)

Pharmacy inputs	Ambulatory without doctor			Ambulatory with doctor		
	N	%	SE	N	%	SE
Antibiotics	n/a	n/a	n/a	3	100	
Ayre palettes	n/a	n/a	n/a	3	100	
Multivitamin*	12	66.7	13.6	3	100	
Nitrofurantoin	n/a	n/a	n/a	3	100	
Microscope slides	n/a	n/a	n/a	3	100	
Tetanus vaccine**	4	100		2	50	35.4
All drugs available on the day of the survey	12	66.7	13.6	3	66.7	27.2
Continuous availability of all drugs in the previous three months***	12	66.7	13.61	3	66.7	27.22

*Iron + Folic acid was used as an alternative to multivitamins

**Tetanus vaccine was only required if the facility stored vaccines

***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

****Only Multivitamin + tetanus vaccine required for ambulatory facilities without a doctor for the prenatal (7020) monitoring indicator

Table 6.2.2c ANC - PPC pharmacy inputs for basic facilities (7020M)

Pharmacy inputs	Basic		
	N	%	SE
Ayre palettes	17	100	
Cefalixina*	17	100	
Multivitamin**	17	100	
Nitrofurantoin	17	70.6	11.1
Microscope slides	17	100	
Tetanus vaccine***	16	81.3	9.8
All drugs available on the day of the survey	17	52.9	12.1
Continuous availability of all drugs in the previous three months****	17	41.2	11.9

*Item only required for basic facilities for the prenatal (7020) monitoring indicator

**Iron + Folic acid was used as an alternative to multivitamins

**Tetanus vaccine was only required if the facility stored vaccines

****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

6.2.3 ANC - PPC lab inputs

In the observation component of the survey, interviewers checked for certain laboratory inputs important for antenatal care services in basic facilities that provide ANC – PPC care and have a lab. According to the country indicator manual, there is a monitoring indicator regarding ANC - PPC lab

inputs (7020M). The ANC – PPC monitoring indicator is displayed in Table 6.2.3 and requires all facilities that provide ANC care and have a lab to possess these inputs with no stock out in the last three months.

Table 6.2.3 ANC - PPC pharmacy inputs at basic facilities (7020M)

Laboratory inputs	N	Basic	
		%	SE
Blood type antibodies	8	75.0	15.3
Rh group	8	87.5	11.7
Cuvettes	8	100	
Hemocue / automatic cell counter	8	100	
HIV/AIDS test / fluorescent microscope	8	100	
Pregnancy test	8	100	
Reagent for syphilis & HIV/AIDS*	5	40.0	21.9
Rapid syphilis test / dark field microscope**	8	100	
Test strips for glucose in blood / glucometer	8	100	
Test strips for protein in urine / urinalysis equipment	8	87.5	11.7
All inputs observed on the day of the survey	8	50.0	17.7
Continuous availability of all drugs in the previous three months	8	50.0	17.7

*Item was measured only if an enzyme immunoassay kit was present

**If neither the syphilis test or microscope were observed, enzyme immunoassay kit was used as an alternative

***Overall drug availability including availability of all inputs on the day of the survey and no stock out in the previous three months for the rapid syphilis test + rapid HIV/AIDS test + reagent for syphilis + reagent for HIV/AIDS

6.3 ANC - PPC medical record review

6.3.1 ANC - PPC medical record review – First ANC visit

Records of women who received antenatal care in-facility in the last two years are 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, 33.3% of women from ambulatory facilities and 25.2% of women from basic facilities received antenatal care at a UBA facility where their first ANC visit was attended by a doctor/nurse and was before 12 weeks gestation.

Table 6.3.1 ANC during the first trimester

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Doctor or nurse attended first ANC visit	12	100		286	96.9	1.0
First ANC visit before 12 weeks gestation	12	33.3	13.6	286	26.6	2.6
First ANC visit according to the norm*	12	33.3	13.6	286	25.2	2.6

*The gestational age was also reported in the medical records. If the indicator was calculated using the stated gestational age, 26.8% of women at all facilities had the first ANC visit according to the norm.

6.3.2 ANC - PPC medical record review – Four ANC visits

Medical records of women are selected systematically and reviewed regarding antenatal care. According to the country indicator manual, there is a monitoring indicator regarding antenatal care (3030M).

3030M assesses antenatal care by ensuring that women have the following:

1. At least four ANC visits at a health facility
2. At least four ANC visits with a doctor/nurse
3. At least four ANC visits with physical checkups (weight + blood pressure + fundal height + edema + reflexes)
4. At least four ANC visits with a fetal checkup for heart rate and movement (if the fetus is between 20-42 weeks)
5. At least one of each laboratory test (listed in Table 6.3.4)

Table 6.3.2a reflects indicator 3030M using the inputs listed above. Neither ambulatory nor basic facilities had women who received at least four ANC visits at a health facility with the proper physical checkups. By removing edema and reflex tests, 26.5% of women at ambulatory and 59.3% of woman at basic facilities received at least 4 ANC visits with the proper physical checkups. Table 6.3.2b reflects the removal of these edema and reflex tests. Table 6.3.2c displays the individual inputs of the lab tests for women.

Table 6.3.2a Components of indicator 3030M at all facilities

	Ambulatory			Basic		
	N	%	SE	N	%	SE
At least 4 ANC visits	49	51.0	7.1	295	62.4	2.8
At least 4 ANC visits with a doctor / nurse	49	26.5	6.3	292	60.3	2.9
At least 4 ANC visits with physical checkups	49	0		295	0	
At least 4 ANC visits with fetal checkups*	49	49.0	7.1	292	59.2	2.9
Lab tests performed at least once	49	0		292	56.5	2.9

*Fetal checkups were only required if the gestational age is >20 and <=42 weeks at the time of the visit

Table 6.3.2b Recalculated components of indicator 3030M at all facilities (with no reflex or edema tests)

	Ambulatory			Basic		
	N	%	SE	N	%	SE
At least 4 ANC visits	49	51.0	7.1	295	62.4	2.8
At least 4 ANC visits with a doctor / nurse	49	26.5	6.3	292	60.3	2.9
At least 4 ANC visits with physical checkups*	49	46.9	7.13	295	59.3	2.86
At least 4 ANC visits with fetal checkups**	49	49.0	7.1	292	59.2	2.9
Lab tests performed at least once	49	0		292	56.5	2.9

*Edema and reflexes were removed from the physical checkout requirements

**Fetal checkups were only required if the gestational age is >20 and <=42 weeks at the time of the visit

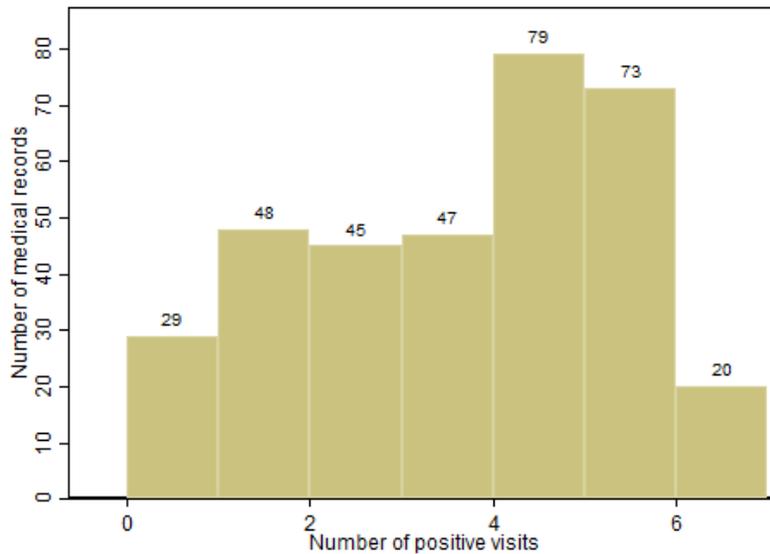
Table 6.3.2c Lab inputs at all facilities (3030M)

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Blood type	49	79.6	5.8	292	78.4	2.4
Blood glucose level	49	83.7	5.3	292	66.8	2.8
Hb level	49	81.6	5.5	292	68.5	2.7
HIV test*	49	89.8	4.3	n/a	n/a	n/a
Platelet count*	49	34.7	6.8	n/a	n/a	n/a
Rh test	49	79.6	5.8	292	76.4	2.5
Uric acid in blood*	49	2.0	2.0	n/a	n/a	n/a
Uric acid in urine*	49	0		n/a	n/a	n/a
Urinalysis	49	85.7	5.0	292	74.7	2.5
VDRL test	49	89.8	4.3	292	74.3	2.6

*Test was not evaluated for basic facilities as part of the 3030 monitoring indicator

The histogram below (Figure 6.3.2d) displays the number of positive ANC visits, excluding the laboratory component, for women who had a minimum of four ANC visits in their medical record. If a woman's visit was positive, it means that they included a doctor/nurse, physical checkups (excluding edema and reflexes) and fetal checkups (if the gestational age was >20 or <=42 weeks).

Figure 6.3.2d Number of Positive ANC Visits



*Only women who had a minimum of four ANC visits are included in this diagram

**This reflects the removal of edema and reflexes during the physical checkup and does not include any laboratory components

6.3.3 ANC - PPC medical record review – PPM Care

Records of women who received postpartum care immediately after birth in the last two years in-facility are also selected systematically and reviewed. According to the country indicator manual, there is a monitoring indicator regarding the number of women assessed and recorded during PPC in basic facilities (4050M). 4050M assesses the record of vital signs immediately after delivery (Table 6.3.3).

Table 6.3.3 PPM checkups

	Basic		
	N	%	SE
Checked at least twice in the first hour:			
Blood pressure: diastolic	225	80.0	2.7
Blood pressure: systolic	225	80.0	2.7
Pulse	225	80.0	2.7
Respiratory rate	225	72.9	3.0
Temperature	225	79.1	2.7
Checked at least twice in the second hour:			
Blood pressure: diastolic	225	83.6	2.5
Blood pressure: systolic	225	83.6	2.5
Pulse	225	83.1	2.5
Temperature	225	82.7	2.5
Checked at discharge:			
Blood pressure	225	87.6	2.2
Pulse	225	86.2	2.3
Temperature	225	86.7	2.3

6.4 Delivery care equipment & pharmacy inputs

In the observation component of the health facility survey, interviewers check for certain supplies and equipment necessary for delivery and newborn care. According to the country indicator manual, there is both a performance and monitoring indicator regarding delivery equipment. The delivery performance indicator (7040) is displayed in Table 6.4.1a and assesses basic facilities that provide delivery services for the availability of functional equipment necessary for delivery and newborn care. The delivery monitoring indicator (7040M) is displayed in Table 6.4.1b and also assess basic facilities that provide delivery services to possess functional equipment necessary for delivery and newborn care.

Table 6.4.1a Equipment needed for delivery care in basic facilities (7040)

Equipment type	BASIC					
	BASELINE			18-MONTH		
	N	%	SE	N	%	SE
Equipment p / serum c / IV drips	14	71.4	12.1	17	100	
Infusion equipment	14	92.9	6.9	17	70.6	11.1
Intravenous catheter sterile N ° 18	14	100		17	94.1	5.7
Metallic clamp /umbilical tape / plastic clamp*	14	100		17	100	
Sterile fields or sheltering for a baby	14	78.6	11.0	17	100	
Urinary catheter	14	92.9	6.9	17	70.6	11.1
All equipment observed and functional**	14	50.0	13.4	17	52.9	12.1

*Plastic clamps were not originally included as an alternative in the baseline indicator, but have been incorporated for this comparison to the follow-up

**Data for functionality only applicable for equipment p / serum c / macrogotero and microgotero & sterile fields

Table 6.4.1b Equipment needed for delivery care in basic facilities (7040M)

Equipment type	Basic		
	N	%	SE
Equipment p / serum c / IV drips	17	100	
Intravenous catheter sterile N ° 18	17	94.1	5.7
Metallic Clamp or umbilical tape	17	100	
Nasogastric tube	17	76.5	10.3
Sterile fields or sheltering for a baby	17	100	
All equipment observed and functional	17	70.6	11.1

The performance and monitoring indicators regarding delivery also require basic facilities to carry certain pharmacy inputs. Table 6.4.1c displays the pharmacy inputs needed as part of the 7040 performance indicator and Table 6.4.1d displays the pharmacy inputs needed as part of the 7040M monitoring indicator. All basic facilities must provide delivery care and store certain pharmacy inputs with no stock out in the last three months.

Table 6.4.1c Pharmacy inputs needed for delivery care in basic facilities (7040)

Pharmacy inputs	BASIC					
	BASELINE			18-MONTH		
	N	%	SE	N	%	SE
Drops of chloramphenicol ophthalmic / oxytetracycline ophthalmic / 1% silver nitrate / gentamicin ophthalmic / fusidic acid ophthalmic (fucithalamic)**	14	64.3	12.8	17	94.1	5.7
Ergonovine maleate / Ergometrine / Oxytocin*	14	92.9	6.9	17	100	
Hyoscine bromide / Butylscopolamine	14	85.7	9.4	17	100	
Ringer lactate / Hartmann solution / Saline solution	14	100		17	100	
Vitamin K	14	92.9	6.9	17	100	
All pharmacy inputs available on the day of the survey	14	57.1	13.2	17	94.1	5.7
Continuous availability of all drugs in the previous three months***	14	57.1	13.2	17	94.1	5.7

*Oxytocin was included as an alternative at the follow-up. This input has been recalculated from the baseline to include oxytocin

**Gentamicin ophthalmic and fusidic acid were not measured at the baseline and are only included as an alternative at the follow-up

***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 in the follow-up. The baseline only included stockout in the previous three months for oxytocin and vitamin k (when available)

****Plastic clamps considered at baseline but excluded from pharmacy component at 18-month evaluation

Table 6.4.1d Pharmacy inputs needed for delivery care in basic facilities (7040M)

Pharmacy inputs	Basic		
	N	%	SE
Hyoscine bromide / Butilioscina	17	100	
Drops of chloramphenicol ophthalmology / 1% silver nitrate	17	94.1	5.7
Ergonovine maleate / Ergometrine / Oxytocin	17	100	
Povidone-iodine	17	52.9	12.1
Lidocaine / Epinephrine	17	94.1	5.7
Ringer lactate / Hartmann solution / saline solution	17	100	
C Syringe / Insulin syringe	17	94.1	5.7
Vitamin K	17	100	
All pharmacy inputs available on the day of the survey	17	41.2	11.9
Continuous availability of all drugs in the previous three months	17	35.3	11.6

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, 93.0% of records at basic level facilities reported the administration of oxytocin or another uterotonic after delivery.

6.5.2 SURCO & partograph revision

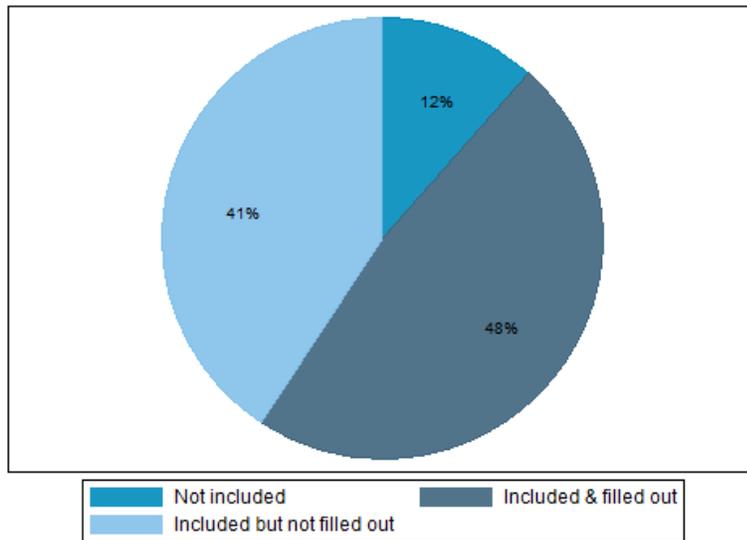
During the review of delivery medical records in basic facilities, interviewers reported the number of deliveries for which a partograph was included in the record and correctly interpreted according to the norms in the past two years. During this medical record review basic facilities also reported on whether the woman was referred to the facility. Only 3.45% of women were referred to the facility according to delivery records.

The table below (Table 6.5.2a) displays the components of the partograph that were recorded and used during births and Figure 6.5.2b displays the percentage of partographs that were used during births.

Table 6.5.2a Partograph components in basic facilities

Partograph components	N	Basic	
		%	SE
Contractions	116	95.7	1.9
Cephalic descent	116	89.7	2.8
Cervical dilation	116	96.6	1.7
Fetal presentation	116	95.7	1.9
Fetal evaluation	116	97.4	1.5
Fetal heart rate	116	88.8	2.9
Mother's blood pressure	116	100	
Mother's pulse	116	90.5	2.7
Observation of amniotic fluid	116	34.5	4.4
Observation of membranes	116	35.3	4.4
Partograph contains all components	116	19.0	3.6

Figure 6.5.2b Percent of partographs used during births in basic facilities



*N=243

The monitoring indicator (4060M) also used the systematic review of delivery records to determine whether a partograph was completed appropriately during birth. There are two ways in which the indicator was calculated and met:

1. Partograph observed and filled out + Fetal Heart Rate (FHR) and alert curve recorded if dilation was greater than 4.5 cm + nothing further required if FHR > 120 beats per minute (bpm) or alert curve was not surpassed
2. Partograph observed and filled out + Fetal Heart Rate (FHR) and alert curve recorded if dilation was greater than 4.5 cm + a note within 30 minute if FHR < 120 beats per minute (bpm) or alert curve was surpassed.

Table 6.5.2c displays the components of this monitoring indicator. It is important to note that the medical record review did not capture whether a woman arrived for an elective c-section or imminent birth. Therefore, the reason as to why the partograph was not complete or included in a record is missing.

Table 6.5.2c Percent of partographs used during births in basic facilities

Partograph revision in basic facilities	Basic		
	N	%	SE
Partograph included and filled out	243	47.7	3.2
Women with dilation > 4.5 cm	116	94.0	2.2
Fetal heart rate and alert curve are recorded if dilation > 4.5 cm	109	98.2	1.3
Women with alert curve surpassed	116	21.6	3.8
There exists a note within 30 minutes if alert curve surpassed	25	76.0	8.7
Fetal heart rate < 120 bpm	116	10.3	2.8
There exists a note within 30 minutes if FHR < 120 bpm	12	50.0	15.1
Partograph according to the norm	243	43.6	3.2

Chapter 7 SANITATION & DELIVERY PLANS

This chapter summarizes indicators regarding sanitation (7730) and delivery (7740) plans with surrounding communities. Throughout 18-month data collection, interviewers were responsible for evaluating whether 16 specific communities formed a sanitation and delivery plan with a specified facility. Interviewers were also responsible for observing all components of each plan with the facility.

7.1 Sanitation plan

According to the indicator related to sanitation and water quality plans (7730), communities and health facilities should construct sanitation and water quality plans. These sanitation plans should be observed and must include a format for inspection. There are 16 communities that were required to have a sanitation plan with a specified UBA health facility in our sample. Throughout data collection, interviewers only observed 56.3% of community sanitation plans with their corresponding health facility. All of these observed plans included the required format of inspection. Table 7.1 displays the number of plans observed along with all required components of the sanitation plan.

Although only 56.4% of plans were observed, all 16 community sanitation plans associated with this indicator are in existence. Table 7.1 contains a footnote to reflect this discovery post data-collection.

Table 7.1. Number of communities that have a sanitation plan and all its components with a health facility (7730)

Sanitation Plan Components	18-MONTH		
	N	%	SE
Does the plan exist at health facility?	16	56.3	12.4
Was the plan observed?*	9	100	
Was there a format for inspection?***	9	100	
All components of community plan existed	16	56.3	12.4

*Only asked if the individual indicated that they plan existed at the health facility

**Only asked if the plan was observed

***The 7 plans that were not observed at facilities are in existence. If the community plan was not required to be linked to a specific facility then 100% of communities met the sanitation plan indicator 7730

7.2 Delivery plan

According to the indicator related to delivery plans (7740), communities and health facilities should construct delivery plans for women in surrounding communities. These delivery plans should be observed and must include: a signature from the community leader + a signature from a doctor or nurse + a format for an individual delivery plan + the name of the installation responsible for transportation. There are 16 communities that were required to have a delivery plan with a specified UBA health facility in our sample. Throughout data collection, interviewers only observed 50.0% of community delivery plans with their corresponding health facility. 75.0% of these observed plans included all required format of inspection. Table 7.2.1 displays the number of plans observed along with all required components of the delivery plan.

Although only 50.0% of plans were observed, all 16 community delivery plans associated with this indicator are in existence. Table 7.2.1 contains a footnote to reflect this discovery post data-collection. While we know that all 16 communities have a delivery plan in place with a corresponding health facility, if not all components were included (of the 50.0% that were observed), this is reflected in the updated indicator calculation.

Table 7.2.1 Number of communities that have a delivery plan and all its components with a health facility (7740)

Delivery Plan Components	18-MONTH		
	N	%	SE
Does the plan exist at health facility?	16	50.0	12.5
Was the plan observed?*	8	100	
Community leader signature**	8	100	
Doctor / nurse signature**	8	100	
Individual delivery plan format**	8	100	
Name of the transportation facility**	8	75.0	15.3
All components of delivery plan existed	16	37.5	12.1

*Only asked if the individual indicated that they plan existed at the health facility

**Only asked if the plan was observed

***The 8 plans that were not observed at facilities are in existence. If the delivery plan was not required to be linked to a specific facility then 87.5% of communities met the delivery plan indicator 7740 (due to missing components regarding the name of the transportation facility)

The indicators related to sanitation and delivery plans pertain to six facilities that have relationships with surrounding communities. In the observation checklist component of the survey, each of the six health facilities were checked for delivery and sanitation plans with specified communities. Table 7.2.2 details the number of required plans observed at each of these facilities. As seen in the table below, at least one plan was observed at each facility, although not all components of the plans were observed at each facility during data collection. This is not an accurate count of all community plans in existence, only those observed at the time of data collection.

Table 7.2.2 Number of delivery and sanitation plans observed during data collection

Facility ID	18-MONTH	
	# of Delivery Plans	# of Sanitation Plans
Facility 1*	1 / 2	1 / 2
Facility 2	2 / 2	2 / 2
Facility 3	1 / 2	1 / 2
Facility 4	1 / 6	1 / 6
Facility 5*	1 / 2	2 / 2
Facility 6	2 / 2	2 / 2
Total Number of Plans	8 / 16	9 / 16

*The delivery plan observed was missing only one component (transportation)

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	22	18.2	8.2	0	17	23.5	10.3	0
Contract with other facility for biohazard disposal*	18	5.6	5.4	0	13	0		0
Manual for decontamination	21	9.5	6.4	1	17	52.9	12.1	0

*Only asked if they did not answer 'yes' when asked if the facility had an incinerator

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
Decontamination methods						
Submerged in disinfectant, then scrubbed with a brush, soap and water	22	36.4	10.3	17	82.4	9.3
Scrubbed with a brush, soap and water, then submerged in disinfectant	22	22.7	8.9	17	17.6	9.3
Scrubbed with a brush, soap and water only	22	27.3	9.5	17	0	
Submerged in disinfectant, without scrubbing with brush	22	0		17	0	
Cleaned with water and soap, without scrubbing with a brush	22	4.5	4.4	17	0	
Equipment never reused	22	4.5	4.4	17	0	
Facility doesn't decontaminate	22	0		17	0	
Other	22	31.8	9.9	17	5.9	5.7
Sterilization methods						
Dry heat	22	0		17	0	
Autoclave	22	36.4	10.3	17	82.4	9.3
Boiling	22	13.6	7.3	17	0	
Steam	22	4.5	4.4	17	5.9	5.7
Chemical sterilization	22	0		17	0	
Processed away from facility	22	9.1	6.1	17	5.9	5.7
Facility doesn't sterilize	22	9.1	6.1	17	0	
Other	22	36.4	10.3	17	11.8	7.8

Appendix A: SM2015 Health Facility Indicators

Table A.1.1 Facility performance indicators matrix

#	Indicator	BASELINE EVALUATION			18-MONTH EVALUATION			18-MONTH TARGET	
		N	n	Percent (95% CI)	N	n	Percent (95% CI)	%	one-sided Z-test p value*
7010**	Basic attention units (UBAs) with continuous availability of supplies needed for child care, immunization and nutrition	17	2	11.8% (1.5 - 36.4%)	19	16	84.2% (60.4 - 96.6%)	80%	0.6768
7020	Basic attention units (UBAs) with continuous availability of supplies and equipment needed for pre and postpartum care	17	3	17.6% (3.8 - 43.4%)	19	19	100% (82.4 - 100%)	80%	0.9854
7040***	Basic EONC facilities with continuous availability of supplies and equipment needed for delivery care	14	1	7.1% (0.2 - 33.9%)	17	8	47.1% (23.0 - 72.2%)	80%	<0.00001
7050	Basic attention units (UBAs) that have supplies of modern family planning methods (condom, oral, injectable, barrier, IUD)	14	1	7.1% (0.2 - 33.9%)	19	15	78.9% (54.4 - 93.9%)	80%	0.4543
7192	Facilities with 24/7 availability of a nurse or general physician at basic EONC level facilities	15	9	60.0% (32.3 - 83.7%)	17	13	76.5% (50.1 - 93.2%)	78%	0.4395
7710****	UBA facilities that possess monthly AIN-C registries in which 80% of children under 24 months are registered with weight	n/a	n/a	n/a	15	8	53.3% (26.6 - 78.7%)	80%	0.0049
7730*****	Population living in communities with a plan for better community sanitation and water quality	n/a	n/a	n/a	16	16	100% (79.4 - 100%)	80%	0.9772
7740*****	UBAs with birthing plans for communities under their responsibility (which have been approved by the community)	n/a	n/a	n/a	16	14	87.5% (61.7 - 98.4%)	80%	0.7734

*One side test of proportions comparing if the estimate is lower than the target

**Follow-up included zinc oxide as an alternative to zinc sulfate / zinc gluconate

***Indicator definition changed from the baseline to the follow-up. Using the follow-up indicator calculation, the baseline value increased from 7.1% to 42.9%.

****Follow-up calculation included nurse as an alternative to a general physical. This was not included at the baseline.

*****Indicator was not measured at the baseline; indicator criteria based upon the availability of plans without considering if the plans were linked to specific health facilities. When considering actual observed availability of plans at health facilities, 56.3% of communities had sanitation plans and 37.5% of communities had birthing plans located at respective health facilities.

Table A.1.2 Facility monitoring indicators matrix

Monitoring indicators		BASELINE			18-MONTH		
		N	%	SE	N	%	SE
3040M*	Women of a reproductive age (15-49 years) who received their first antenatal care visit by qualified personnel before 12 weeks gestation in the last two years at a UBA facility	137	25.5	3.7	298	25.5	2.5
3030M**	Women of reproductive age (15-49 years) who had at least 4 ANC visits with a doctor/nurse and proper checkups in the last two years.	165	25.5	3.4	341	0	
4050M	Women of reproductive age (15-49 years) who were assessed and recorded during PPC checkups in the last two years.	n/a	n/a	n/a	225	71.1	3.0
4095M	Active management (administration of oxytocin/other uterotonic) in most recent birth in the last two years	157	78.3	3.3	243	93.0	1.6
4060M	Partograph revision	18	5.6	5.4	116	19.0	3.6
7010M	Facilities with continuous availability of supplies needed for child care, immunization and nutrition	32	3.1	3.1	22	4.5	4.4
7020M***	Facilities with continuous availability of supplies and equipment needed for pre and postpartum care	22	4.5	4.4	32	28.1	7.9
7040M	Basic facilities with continuous availability of supplies and equipment needed for delivery care	14	14.3	9.4	17	23.5	10.3
7050M	Facilities that have supplies of modern family planning methods (condom, oral, injectable barrier, IUD)	26	19.2	7.7	24	75.0	8.8

*When using stated gestational age in the followup, 26.8% of records pass the indicator; baseline value represents gestational age less than 12 weeks while 18-month value represents gestational age less than or equal to 12 weeks

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

**If the following are removed in the follow-up: edema, reflexes, uric acid in blood test, uric acid in urtine test, 34.5% of facilities meet the indicator

***Lab equipment assessed at five of the thirteen basic EONC level facilities at the baseline