

# Salud Mesoamérica Initiative Panama Health Facility Data Quality Report Second Follow-up Measurement

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#### **Foreword**

This Data Quality Report on the Salud Mesoamérica Initiative (SMI) Panama Health Facility Surveys was produced in agreement with the Inter-American Development Bank (IDB). All analyses 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 objective evidence about what does and does not improve health conditions and health system 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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# 1 Chapter 1: Survey Methodology

#### 1.1 Overview

Salud Mesoamérica Initiative (SMI) 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 (RBA) aid model 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 quality reproductive, maternal, neonatal, and child health services (including immunization and nutrition services) for the poorest quintile of the population.

The objectives of the SMI evaluation are to assess whether countries are reaching the indicator targets set by the Initiative and to evaluate the results of specific interventions. In Panama, baseline data were collected at households and health facilities in intervention areas (2013). The first follow-up data collection (2014) took place at health facilities. This second follow-up measurement was performed at households and health facilities in intervention areas (2018). The following report details data collected from health facilities in SMI intervention areas.

#### 1.2 Health facility surveys

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. Importantly, health facility data collection captures changes produced by interventions at the level of the health services access point, which may foretell changes in population health outcomes.

The objectives of the household survey are to capture reported maternal and child health data for women 15-49 years of age and for children 0-59 months of age. Community data collection permits the observation of health status, access to health care, and satisfaction with health care.

#### 1.3 Contents and methods for data collection

#### 1.3.1 Contents of the 2018 second follow-up measurement in health facilities

The second follow-up health facility survey includes three components: an interview questionnaire, an observation checklist, and MRRs. The questionnaire captures information reported by the facility director, manager, or person in charge of the health facility. 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. The checklist captures the direct observations of the surveyors at the time of the survey using an observation checklist, and in the case of some inputs, through the review of administrative records to identify the presence of stock-outs in the three months prior to the survey. The MRR assesses the record keeping of the facilities and captures facilities' treatment practices related to the care provided before, during, and after uncomplicated deliveries.

#### 1.4 Sampling

#### 1.4.1 Health facility sampling

For this evaluation, a sample of intervention-area health facilities was selected from a list of all facilities serving the two provinces covered by the SMI initiative, Guna Yala and Emberá. This list was constructed according to a referral network outlined by the Ministry of Health. Facilities are grouped according to two levels of Essential Obstetric and Neonatal Care (EONC) services provided: ambulatory and basic. Ambulatory facilities provide outpatient care while basic facilities are able to attend uncomplicated deliveries and provide immediate emergency obstetric and neonatal care.

All Ministry of Health facilities serving the areas covered by the SMI Initiative were included in the second follow-up evaluation. The census was to include 41 facilities that offer ambulatory and basic emergency obstetric and neonatal care (EONC), located in the regions of Guna 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 two ambulatory units.

#### 1.4.2 Medical record review sampling

To complete the medical record portion of the survey, records are randomly selected according to the level of services provided at the facility and the number of facilities within the study sample in order to reach a set total sample size of records for each review module. Antenatal care records were collected at ambulatory and basic facilities; uncomplicated delivery and immediate postpartum care records were collected at basic facilities.

Medical record review quotas are set per facility by dividing the total number of records to be reviewed in intervention areas by the number of data entry modules to be completed at each level of care, and then among all sampled facilities at each level. Quota calculations take into account the prevalence of each type of record as measured in the SMI baseline and first follow-up survey, as well as the statistical power necessary to detect projected differences from baseline to the second follow-up for performance indicators for SMI interventions.

Medical records were collected for a two year time period prior to the start of data collection. For the purposes of this report, only records collected from around 22 months prior are displayed at the second follow-up evaluation because interventions were not complete until this time.



#### 1.5 Survey implementation

#### 1.5.1 Data collection instruments

All surveys are conducted using a computer-assisted personal interview (CAPI). The CAPI was programmed using DatStat Illume and installed onto computer netbooks. 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, maintain a logical answering pattern across different questions, decrease data entry errors, and permit rapid data verification remotely.

#### 1.5.2 Training and supervision of data collectors

Training sessions and health facility pilot surveys were conducted in Panama from May 18 - 25, 2018. Two doctors and one nurse were trained to conduct the health facility surveys. Data collection in Panama was conducted by Grupo de investigación iDIES (Innovación, Diseño, Implementación y Evaluación en Salud), in partnership with Fundación Universidad del Valle. All Grupo iDIES contracted employees underwent training led by IHME. Teams were given in-depth training and practice for each relevant component of data collection. The training included content of each survey, proper conduct of the survey, in-depth review of the instrument, and hands-on training on the CAPI software. Health facility surveyors participated in a pilot at health facilities of different EONC levels where they applied the questionnaire, conducted observation exercises, and practiced medical record sampling and review. Representatives from IHME, IDB, and the Panama Ministry of Health provided oversight during pilot exercises. IHME and Grupo iDIES held debriefing and re-training sessions with surveyors post-pilot and provided continued training during the first week of data collection in sampled communities and health facilities. A supervisory trip was conducted from May 28, 2018 - June 1, 2018, during which time an IHME staff member observed active census, household, and health facility data collection and provided feedback to data collectors.

#### 1.5.3 Data collection and management

As described above, data were collected using computer netbooks equipped with CAPI software. Field team leaders monitored the implementation of the 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 instrument and readily transmitted to the field. In Panama, data collection was conducted between May - July 2018.

#### 1.5.4 Data analysis and report writing

Data analysis was conducted at IHME. Analysis was performed using STATA version 14 and RStudio version 3. This report provides data summaries for intervention area facilities and medical records in Panama.



# 2 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 visited for the second follow-up evaluation, as displayed below. The ambulatory level is comprised of itinerant medical teams, health posts, and three health centers. The basic level is comprised of three health posts, 12 health centers and two rural hospitals.

Table 2.1: Health facility classification

EONC	Baseline	First Follow-Up	Second Follow-Up
Ambulatory	21	22	22
Basic	17	17	17
Total	38	39	39

Table 2.2: UBA health facility classification

EONC	Baseline	First Follow-Up	Second Follow-Up
Ambulatory	2	2	2
Basic	17	17	17
Total	19	19	19

#### 2.1.2 Geographical representation

Intervention-area facilities surveyed during the second follow-up evaluation were located in two regions in Panama: Emberá and Guna Yala.

Table 2.3: Number of facilities by municipality

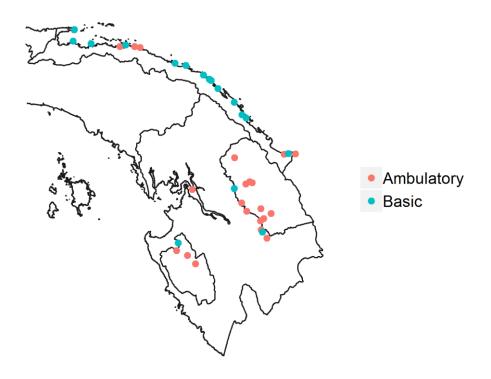
Municipality	Baseline Facilities	First Follow-up Facilities	Second Follow-up Facilities
Emberá	18	19	19
Guna Yala	20	20	20
Total	38	39	39



Table 2.4: Number of UBA facilities by municipality

Municipality	Baseline Facilities	First Follow-up Facilities	Second Follow-up Facilities
Emberá	4	4	4
Guna Yala	15	15	15
Total	19	19	19

Figure 2.1: Geographical representation of intervention-area facilities



#### 2.1.3 Governing authority

All health facilities evaluated were public institutions governed by the Panama Ministry of Health.

#### 2.2 Medical record extraction

Surveyors systematically selected and reviewed medical records from ambulatory and basic facilities in Panama intervention areas. Antenatal care records were collected from all facilities, while postpartum and uncomplicated delivery records were collected from basic facilities. A total of 1044 records were extracted during the second follow-up evaluation. The table below displays the number medical records



that were collected for the full two year time period (24 months) prior to the start of data collection. The rest of this report only uses records collected from around 22 months prior to the start of data collection because interventions were not complete until this time.

Table 2.5: Medical record extraction, facilities

	Baselin	e	First Follov	v-up	Second Follow-Up		
Record Type	Ambulatory	Basic	Ambulatory	Basic	Ambulatory	Basic	
Antenatal care	48	135	55	314	94	374	
Postpartum care	0	158	0	245	0	340	
Uncomplicated delivery	0	157	0	249	0	330	
Total	48	450	55	808	94	1044	

#### 2.3 Referrals

During the questionnaire component of the survey, basic facility representatives were asked about whether the facility receives patient referrals from other facilities and whether the facility sends patient referrals to other facilities. Referral practices specific to routine and complicated deliveries were also evaluated.

Table 2.6: Referrals, ambulatory facilities

	Baseline			1st Follow-up				2nd Follow-Up		
	N	%	CI	N	%	CI	Ν	%	CI	
Sends patient referrals to other facilities	21	100	(83.9 - 100)	22	100	(84.6 - 100)	22	95.5	(77.2 - 99.9)	
Sends referred routine deliveries	-	-	-	-	-	-	21	76.2	(52.8 - 91.8)	
Sends referred complicated deliveries	-	-	-	-	-	-	21	85.7	(63.7 - 97)	

**Table 2.7: Referrals, basic facilities** 

	Baseline			1st Follow-up				2nd Follow-Up		
	N	%	CI	N	%	CI	Ν	%	CI	
Receives referred patients from other facilities	17	70.6	(44 - 89.7)	17	52.9	(27.8 - 77)	17	52.9	(27.8 - 77)	
Receives referred routine deliveries	-	-	-	-	-	-	9	55.6	(21.2 - 86.3)	
Receives referred complicated deliveries	-	-	-	-	-	-	9	44.4	(13.7 - 78.8)	
Sends patient referrals to other facilities	17	94.1	(71.3 - 99.9)	17	100.0	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
Sends referred routine deliveries	-	-	-	-	-	-	16	6.2	(0.2 - 30.2)	
Sends referred complicated deliveries	-	-	-	-	-	-	16	100.0	(79.4 - 100)	



Representatives at facilities which receive referred patients for routine and complicated deliveries were also asked about documents requested during referral processing. At the second follow-up evaluation, all cases of "other" documentation referred to the Prenatal Control Card.

Table 2.8: Requested referral documents, second follow-up evaluation

			Basic
	N	%	CI
Routine Deliveries			
Transfer form	5	0	(0 - 52.2)
Patient medical record	5	20	(0.5 - 71.6)
Lab tests	5	40	(5.3 - 85.3)
Proof of insurance	5	0	(0 - 52.2)
Referral sheet	5	80	(28.4 - 99.5)
Other documentation	5	100	(47.8 - 100)
<b>Complicated Deliveries</b>			
Transfer form	4	0	(0 - 60.2)
Patient medical record	4	25	(0.6 - 80.6)
Lab tests	4	25	(0.6 - 80.6)
Proof of insurance	4	0	(0 - 60.2)
Referral sheet	4	100	(39.8 - 100)
Other documentation	4	75	(19.4 - 99.4)

#### 2.4 Personnel

#### 2.4.1 Employed personnel

During the interview portion of the health facility surveys, representatives reported the types of staff employed at the facility. The following tables display the types of personnel employed from baseline to second follow-up by facility type. Each table displays the percent of facilities that employ at least one type of doctor or staff member listed. These tables do not reflect the total number or average number of staff employed at a given facility.



Table 2.9: Personnel employed, ambulatory facilities

		Bas	seline		1st Fo	ollow-up		2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI		
General physician	21	28.6	(11.3 - 52.2)	22	13.6	(2.9 - 34.9)	22	27.3	(10.7 - 50.2)		
Nurse	21	9.5	(1.2 - 30.4)	22	13.6	(2.9 - 34.9)	22	27.3	(10.7 - 50.2)		
Auxiliary nurse	21	9.5	(1.2 - 30.4)	22	36.4	(17.2 - 59.3)	22	27.3	(10.7 - 50.2)		
Midwife	21	4.8	(0.1 - 23.8)	22	9.1	(1.1 - 29.2)	22	9.1	(1.1 - 29.2)		
Social worker	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Health promoter	21	33.3	(14.6 - 57)	22	18.2	(5.2 - 40.3)	22	45.5	(24.4 - 67.8)		
Pediatrician	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Nutritionist	21	14.3	(3 - 36.3)	22	9.1	(1.1 - 29.2)	22	9.1	(1.1 - 29.2)		
Pharmacy dispenser	21	0.0	(0 - 16.1)	22	13.6	(2.9 - 34.9)	22	4.5	(0.1 - 22.8)		
Lab technician	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Gynecologist	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Surgeon	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Anesthesiologist	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Emergency medical technician	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Radiology technician	21	0.0	(0 - 16.1)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)		
Ambulance driver	19	10.5	(1.3 - 33.1)	22	9.1	(1.1 - 29.2)	22	4.5	(0.1 - 22.8)		
Equipment maintenance worker	21	0.0	(0 - 16.1)	22	9.1	(1.1 - 29.2)	22	0.0	(0 - 15.4)		
Building maintenance worker	21	4.8	(0.1 - 23.8)	22	13.6	(2.9 - 34.9)	22	4.5	(0.1 - 22.8)		

 $<sup>^{\</sup>ast}\,$  Two facilities at baseline responded 'do not know' to ambulance driver and are excluded.



Table 2.10: Personnel employed, basic facilities

		Ba	seline		1st Fo	llow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
General physician	17	88.2	(63.6 - 98.5)	17	100.0	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
Nurse	17	76.5	(50.1 - 93.2)	17	82.4	(56.6 - 96.2)	17	94.1	(71.3 - 99.9)	
Auxiliary nurse	17	41.2	(18.4 - 67.1)	17	94.1	(71.3 - 99.9)	17	88.2	(63.6 - 98.5)	
Midwife	17	23.5	(6.8 - 49.9)	17	5.9	(0.1 - 28.7)	17	11.8	(1.5 - 36.4)	
Social worker	17	5.9	(0.1 - 28.7)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Health promoter	17	52.9	(27.8 - 77)	17	70.6	(44 - 89.7)	17	52.9	(27.8 - 77)	
Pediatrician	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Nutritionist	17	41.2	(18.4 - 67.1)	17	17.6	(3.8 - 43.4)	17	23.5	(6.8 - 49.9)	
Pharmacy dispenser	17	23.5	(6.8 - 49.9)	17	35.3	(14.2 - 61.7)	17	23.5	(6.8 - 49.9)	
Labtechnician	17	23.5	(6.8 - 49.9)	17	47.1	(23 - 72.2)	17	47.1	(23 - 72.2)	
Gynecologist	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Surgeon	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	17	5.9	(0.1 - 28.7)	
Anesthesiologist	17	5.9	(0.1 - 28.7)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Emergency medical technician	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Radiology technician	17	5.9	(0.1 - 28.7)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Ambulance driver	15	40.0	(16.3 - 67.7)	17	52.9	(27.8 - 77)	17	17.6	(3.8 - 43.4)	
Equipment maintenance worker	17	5.9	(0.1 - 28.7)	17	11.8	(1.5 - 36.4)	16	0.0	(0 - 20.6)	
Building maintenance worker	17	29.4	(10.3 - 56)	17	41.2	(18.4 - 67.1)	17	70.6	(44 - 89.7)	

<sup>\*</sup> Two facilities at baseline responded 'do not know' to ambulance driver and are excluded.

# 2.5 Personnel availability 24/7 - monitoring indicator

The personnel monitoring indicator (7192) evaluates the 24-hour-a-day, 7-day-a-week on-call availability of a doctor or nurse at basic facilities. 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 the table below.

Table 2.11: Personnel availability 24/7 monitoring indicator, basic facilities

		Ва	aseline		1st Fo	ollow-up		2nd F	ollow-Up
	N	%	CI	N	% CI		N	%	CI
Doctor available 24/7	15	60	(32.3 - 83.7)	17	64.7	(38.3 - 85.8)	17	88.2	(63.6 - 98.5)
Nurse available 24/7	-	-	-	17	58.8	(32.9 - 81.6)	17	88.2	(63.6 - 98.5)
Doctor or nurse available 24/7	15	60	(32.3 - 83.7)	17	76.5	(50.1 - 93.2)	17	94.1	(71.3 - 99.9)

<sup>\* 24/7</sup> nurse availability not captured at baseline evaluation.

<sup>&</sup>lt;sup>†</sup> One facility at second follow-up responded 'do not know' to equipment maintenance worker and was excluded.



# 2.6 Electricity and water

In the health facility questionnaire, facility managers were asked about sources of electricity and water to the facility. Facilities in the table below may report more than one source of electricity and water. The first line of the table displays the percent of facilities that report having functional electricity, followed by all sources used. Facilities were also asked their source of water, as shown in the second half of the table.

Table 2.12: Access to electricity and water, ambulatory facilities

		Bas	seline		1st Fo	ollow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Functional electricity	21	33.3	(14.6 - 57)	22	45.5	(24.4 - 67.8)	22	54.5	(32.2 - 75.6)
Electricity source:									
Central / public network	7	28.6	(3.7 - 71)	10	60.0	(26.2 - 87.8)	12	50.0	(21.1 - 78.9)
Private supply	7	14.3	(0.4 - 57.9)	10	10.0	(0.3 - 44.5)	12	0.0	(0 - 26.5)
In-facility generator	7	14.3	(0.4 - 57.9)	10	0.0	(0 - 30.8)	12	8.3	(0.2 - 38.5)
Solar generator	7	57.1	(18.4 - 90.1)	10	50.0	(18.7 - 81.3)	12	41.7	(15.2 - 72.3)
Other	7	14.3	(0.4 - 57.9)	10	20.0	(2.5 - 55.6)	12	8.3	(0.2 - 38.5)
Water source:									
Piped into facility	19	36.8	(16.3 - 61.6)	22	13.6	(2.9 - 34.9)	22	27.3	(10.7 - 50.2)
Public well (protected)	19	0.0	(0 - 17.6)	22	9.1	(1.1 - 29.2)	22	0.0	(0 - 15.4)
Facility well (protected)	19	5.3	(0.1 - 26)	22	4.5	(0.1 - 22.8)	22	0.0	(0 - 15.4)
Unprotected well	19	0.0	(0 - 17.6)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)
Hand pump	19	5.3	(0.1 - 26)	22	4.5	(0.1 - 22.8)	22	0.0	(0 - 15.4)
Bottled water	19	5.3	(0.1 - 26)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)
Tanker	19	0.0	(0 - 17.6)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)
Rainwater	19	52.6	(28.9 - 75.6)	22	40.9	(20.7 - 63.6)	22	13.6	(2.9 - 34.9)
River water	19	36.8	(16.3 - 61.6)	22	54.5	(32.2 - 75.6)	22	40.9	(20.7 - 63.6)
Other	19	36.8	(16.3 - 61.6)	22	31.8	(13.9 - 54.9)	22	31.8	(13.9 - 54.9)

<sup>\*</sup> Two facilities at baseline responded 'do not know' to water source and are excluded.



Table 2.13: Access to electricity and water, basic facilities

		Ва	seline		1st Fo	llow-up		2nd Fc	llow-Up
	N	%	CI	N	%	CI	N	%	CI
Functional electricity	17	64.7	(38.3 - 85.8)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Electricity source:									
Central / public network	11	27.3	(6 - 61)	17	23.5	(6.8 - 49.9)	17	17.6	(3.8 - 43.4)
Private supply	11	27.3	(6 - 61)	17	11.8	(1.5 - 36.4)	17	0.0	(0 - 19.5)
In-facility generator	11	36.4	(10.9 - 69.2)	17	0.0	(0 - 19.5)	17	29.4	(10.3 - 56)
Solar generator	11	36.4	(10.9 - 69.2)	17	76.5	(50.1 - 93.2)	17	76.5	(50.1 - 93.2)
Other	11	18.2	(2.3 - 51.8)	17	35.3	(14.2 - 61.7)	17	23.5	(6.8 - 49.9)
Water source:									
Piped into facility	15	60.0	(32.3 - 83.7)	17	52.9	(27.8 - 77)	17	64.7	(38.3 - 85.8)
Public well (protected)	15	6.7	(0.2 - 31.9)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)
Facility well (protected)	15	6.7	(0.2 - 31.9)	17	5.9	(0.1 - 28.7)	17	0.0	(0 - 19.5)
Unprotected well	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)
Hand pump	15	6.7	(0.2 - 31.9)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)
Bottled water	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)
Tanker	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)
Rainwater	15	33.3	(11.8 - 61.6)	17	5.9	(0.1 - 28.7)	17	41.2	(18.4 - 67.1)
River water	15	20.0	(4.3 - 48.1)	17	47.1	(23 - 72.2)	17	35.3	(14.2 - 61.7)
Other	15	20.0	(4.3 - 48.1)	17	41.2	(18.4 - 67.1)	17	17.6	(3.8 - 43.4)

<sup>\*</sup> Two facilities at baseline responded 'do not know' to water source and are excluded.

#### 2.7 Internet access

During the questionnaire, facility representatives were asked whether the facility has an internet connection.

Table 2.14: Access to internet, ambulatory facilities

		Bas	seline	1	st Fo	llow-up	2nd Follow-Up				
	N	%	CI	N	%	CI	N	%	CI		
Internet connection	21	0	(0 - 16.1)	22	0	(0 - 15.4)	22	0	(0 - 15.4)		

Table 2.15: Access to internet, basic facilities

		Ba	seline		1st Fo	ollow-up	2nd Follow-Up				
	N	%	CI	N	%	CI	N	%	CI		
Internet connection	16	6.2	(0.2 - 30.2)	17	5.9	(0.1 - 28.7)	17	11.8	(1.5 - 36.4)		



# 3 Chapter 3: Child and adolescent health

#### 3.1 Child health care services provision

This chapter summarizes key aspects of 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. Tables 3.1-3.2 display the percentage of facilities that o???er child health care services and vaccinations for children under age 5, as reported in the questionnaire. Almost all health facilities in the second follow-up evaluation o???er child health care services at the second follow-up. Tables 3.1-3.2 also display information regarding the type of room the facility uses for child care, which is collected during the observation component of the health facility surveys. Slight discrepancies may exist between responses in the questionnaire and observation.

Table 3.1: Child health care services provision, ambulatory facilities

		Ba	seline		1st Fo	ollow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Provides childcare services	21	95.2	(76.2 - 99.9)	22	95.5	(77.2 - 99.9)	22	90.9	(70.8 - 98.9)
Vaccinates children under five	21	81.0	(58.1 - 94.6)	22	81.8	(59.7 - 94.8)	22	90.9	(70.8 - 98.9)
Childcare area									
Visual and auditory privacy	20	70.0	(45.7 - 88.1)	22	72.7	(49.8 - 89.3)	22	77.3	(54.6 - 92.2)
Visual privacy only	20	0.0	(0 - 16.8)	22	4.5	(0.1 - 22.8)	22	4.5	(0.1 - 22.8)
Non private area	20	20.0	(5.7 - 43.7)	22	18.2	(5.2 - 40.3)	22	18.2	(5.2 - 40.3)
Other	20	5.0	(0.1 - 24.9)	22	0.0	(0 - 15.4)	22	0.0	(0 - 15.4)
Do not provide service	20	5.0	(0.1 - 24.9)	22	4.5	(0.1 - 22.8)	22	0.0	(0 - 15.4)

<sup>\*</sup> Childcare area data unavailable for one facility at baseline.

Table 3.2: Child health care services provision, basic facilities

		Bas	seline		1st Fo	llow-up	2nd Follow-Up				
	N	%	CI	N	%	CI	N	%	CI		
Provides childcare services	17	94.1	(71.3 - 99.9)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)		
Vaccinates children under five	17	94.1	(71.3 - 99.9)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)		
Childcare area											
Visual and auditory privacy	15	86.7	(59.5 - 98.3)	17	94.1	(71.3 - 99.9)	17	76.5	(50.1 - 93.2)		
Visual privacy only	15	0.0	(0 - 21.8)	17	5.9	(0.1 - 28.7)	17	17.6	(3.8 - 43.4)		
Non private area	15	13.3	(1.7 - 40.5)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)		
Other	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	5.9	(0.1 - 28.7)		
Do not provide service	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)		

<sup>\*</sup> Childcare area data unavailable for two facility at baseline.



### 3.2 Child health equipment

During the observation component of the survey, interviewers observed the presence and functionality (if possible) of equipment related to child health care. Unless otherwise specified, at least one functional item must be observed for each of the child care equipment requirements.

Table 3.3: Child health care equipment observed and functional, ambulatory facilities

		Ва	seline		1st Fo	ollow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Height rod	19	73.7	(48.8 - 90.9)	21	61.9	(38.4 - 81.9)	22	90.9	(70.8 - 98.9)
Stethoscope	19	63.2	(38.4 - 83.7)	21	42.9	(21.8 - 66)	22	77.3	(54.6 - 92.2)
Thermometer	19	68.4	(43.4 - 87.4)	21	85.7	(63.7 - 97)	22	68.2	(45.1 - 86.1)
National growth card	19	84.2	(60.4 - 96.6)	21	57.1	(34 - 78.2)	22	50.0	(28.2 - 71.8)
National vaccination card	-	-	-	21	90.5	(69.6 - 98.8)	22	50.0	(28.2 - 71.8)

Table 3.4: Child health care equipment observed and functional, basic facilities

		Bas	eline		1st Fo	llow-up	2nd Follow-Up				
	N	%	CI	N	%	CI	N	%	CI		
Height rod	15	80.0	(51.9 - 95.7)	17	52.9	(27.8 - 77)	17	88.2	(63.6 - 98.5)		
Stethoscope	15	26.7	(7.8 - 55.1)	17	23.5	(6.8 - 49.9)	17	82.4	(56.6 - 96.2)		
Pediatric stethoscope	15	20.0	(4.3 - 48.1)	17	58.8	(32.9 - 81.6)	17	5.9	(0.1 - 28.7)		
Thermometer	15	100.0	(78.2 - 100)	17	94.1	(71.3 - 99.9)	17	94.1	(71.3 - 99.9)		
Negatoscope	15	13.3	(1.7 - 40.5)	17	52.9	(27.8 - 77)	17	0.0	(0 - 19.5)		
Pediatric sphygmomanometer	-	-	-	17	35.3	(14.2 - 61.7)	17	5.9	(0.1 - 28.7)		
National growth card	15	93.3	(68.1 - 99.8)	17	100.0	(80.5 - 100)	17	94.1	(71.3 - 99.9)		
National vaccination card	-	-	-	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)		

#### 3.3 Child health care pharmacy inputs - monitoring indicator

During the observation component of the survey, interviewers evaluated the presence and stock of pharmacy inputs related to child health care, such as deworming and diarrhea medication. The standards for child health pharmacy inputs are determined by the SMI composite child health care indicator (7010). Ambulatory facilities with no doctor on staff are omitted from this indicator, as are facilities that do not provide child care services. Interviewers were instructed to observe each drug and review any kardex or written documentation for stock-out in the last three months. If the facility did not have three-month stock documentation at the first or second follow-up, the facility was considered to be stocked out of the drug and did not pass that portion of the indicator.



Table 3.5: Child health care drugs and supplements, ambulatory facilities

		Bas	seline		1st F	ollow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Oral rehydration salts	6	83.3	(35.9 - 99.6)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)
Zinc sulfate / gluconate / oxide	6	16.7	(0.4 - 64.1)	3	100	(29.2 - 100)	6	83.3	(35.9 - 99.6)
Albendazole / mebendazole	6	100.0	(54.1 - 100)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)
Iron	6	100.0	(54.1 - 100)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)
Vitamin A	6	0.0	(0 - 45.9)	3	100	(29.2 - 100)	6	33.3	(4.3 - 77.7)
All drugs available on day of observation	6	0.0	(0 - 45.9)	3	100	(29.2 - 100)	6	33.3	(4.3 - 77.7)
All drugs available in past three months according to standard	6	0.0	(0 - 45.9)	3	100	(29.2 - 100)	6	16.7	(0.4 - 64.1)

<sup>\*</sup> Three-month stock data not available for zinc oxides at baseline evaluation.

Table 3.6: Child health care drugs and supplements, basic facilities

		Bas	seline		1st Fo	llow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Oral rehydration salts	15	93.3	(68.1 - 99.8)	17	94.1	(71.3 - 99.9)	17	94.1	(71.3 - 99.9)
Zinc sulfate / gluconate / oxide	15	13.3	(1.7 - 40.5)	17	94.1	(71.3 - 99.9)	17	88.2	(63.6 - 98.5)
Albendazole / mebendazole	15	100.0	(78.2 - 100)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Iron	15	100.0	(78.2 - 100)	17	100.0	(80.5 - 100)	17	94.1	(71.3 - 99.9)
Vitamin A	15	20.0	(4.3 - 48.1)	17	100.0	(80.5 - 100)	17	76.5	(50.1 - 93.2)
All drugs available on day of observation	15	13.3	(1.7 - 40.5)	17	88.2	(63.6 - 98.5)	17	58.8	(32.9 - 81.6)
All drugs available in past three months according to standard	15	6.7	(0.2 - 31.9)	17	82.4	(56.6 - 96.2)	17	29.4	(10.3 - 56)

 $<sup>^{\</sup>ast}\,$  Three-month stock data not available for zinc oxides at baseline evaluation.

The SMI 7010 indicator applies only to UBA facilities. Drug and supplement availability at UBA facilities is displayed below.

Table 3.7: Child health care drugs and supplements, ambulatory UBA facilities

		Ва	seline		1st F	ollow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Oral rehydration salts	2	100	(15.8 - 100)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Zinc sulfate / gluconate / oxide	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	50	(1.3 - 98.7)
Albendazole / mebendazole	2	100	(15.8 - 100)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Iron	2	100	(15.8 - 100)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Vitamin A	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	50	(1.3 - 98.7)
All drugs available on day of observation	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	50	(1.3 - 98.7)
All drugs available in past three months according to standard	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	0	(0 - 84.2)

 $<sup>\</sup>ensuremath{^{\ast}}$  Three-month stock data not available for zinc oxides at baseline evaluation.



Table 3.8: Child health care drugs and supplements, basic UBA facilities

		Bas	seline		1st Fc	llow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Oral rehydration salts	15	93.3	(68.1 - 99.8)	17	94.1	(71.3 - 99.9)	17	94.1	(71.3 - 99.9)
Zinc sulfate / gluconate / oxide	15	13.3	(1.7 - 40.5)	17	94.1	(71.3 - 99.9)	17	88.2	(63.6 - 98.5)
Albendazole / mebendazole	15	100.0	(78.2 - 100)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Iron	15	100.0	(78.2 - 100)	17	100.0	(80.5 - 100)	17	94.1	(71.3 - 99.9)
Vitamin A	15	20.0	(4.3 - 48.1)	17	100.0	(80.5 - 100)	17	76.5	(50.1 - 93.2)
All drugs available on day of observation	15	13.3	(1.7 - 40.5)	17	88.2	(63.6 - 98.5)	17	58.8	(32.9 - 81.6)
All drugs available in past three months according to standard	15	6.7	(0.2 - 31.9)	17	82.4	(56.6 - 96.2)	17	29.4	(10.3 - 56)

 $<sup>^{\</sup>ast}$  Three-month stock data not available for zinc oxides at baseline evaluation.

#### 3.4 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 a given month. However, during the second follow-up evaluation, only 17 facilities had a nominal census for 2018. Of these 17 facilities, only four had the weight of the children registered. The table below displays results for the number of facilities that retained 80% of children recorded with weight for a given month of the AIN-C registry.

Table 3.9: UBA monthly AIN-C with 80% of children under 24 months with weight

		1st Fo	ollow-up	2nd Follow-up				
	N	%	CI	N	%	CI		
UBA facilities that possess monthly AIN-C registries in which 80% of children under 24 months are registered with weight	15	53.3	(26.6 - 78.7)	4	0	(0 - 60.2)		



# 4 Chapter 4: Immunization services

#### 4.1 Immunization services provision

This chapter summarizes key aspects of immunization services. In the questionnaire component of the survey, facility representatives were asked about service provision as well as vaccine logistics. In the observation component, interviewers observed the setting of the room in which immunizations are provided, as well as the availability and stock of vaccines.

Table 4.1: Immunization services provision, ambulatory facilities

		Ва	seline		1st F	ollow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Vaccinates children under five	21	81.0	(58.1 - 94.6)	22	81.8	(59.7 - 94.8)	22	90.9	(70.8 - 98.9)
Immunization area									
Visual and auditory privacy	18	38.9	(17.3 - 64.3)	22	50.0	(28.2 - 71.8)	22	63.6	(40.7 - 82.8)
Non private area	18	38.9	(17.3 - 64.3)	22	13.6	(2.9 - 34.9)	22	18.2	(5.2 - 40.3)
Visual privacy only	18	0.0	(0 - 18.5)	22	4.5	(0.1 - 22.8)	22	0.0	(0 - 15.4)
Other	18	5.6	(0.1 - 27.3)	22	4.5	(0.1 - 22.8)	22	13.6	(2.9 - 34.9)
Do not provide service	18	16.7	(3.6 - 41.4)	22	27.3	(10.7 - 50.2)	22	4.5	(0.1 - 22.8)

<sup>\*</sup> Immunization area data missing from three facilities at the baseline.

Table 4.2: Immunization services provision, basic facilities

		Ba	seline		1st Fo	ollow-up		2nd Fo	llow-Up
	N	%	CI	N	%	CI	N	%	CI
Vaccinates children under five	17	94.1	(71.3 - 99.9)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)
Immunization area									
Visual and auditory privacy	15	60.0	(32.3 - 83.7)	17	100	(80.5 - 100)	17	70.6	(44 - 89.7)
Non private area	15	40.0	(16.3 - 67.7)	17	0	(0 - 19.5)	17	5.9	(0.1 - 28.7)
Visual privacy only	15	0.0	(0 - 21.8)	17	0	(0 - 19.5)	17	23.5	(6.8 - 49.9)
Other	15	0.0	(0 - 21.8)	17	0	(0 - 19.5)	17	0.0	(0 - 19.5)
Do not provide service	15	0.0	(0 - 21.8)	17	0	(0 - 19.5)	17	0.0	(0 - 19.5)

<sup>\*</sup> Immunization area data missing from two facilities at the baseline.

#### 4.2 Vaccine logistics: storage

In the questionnaire component of the survey, interviewers asked facility representative about vaccine storage methods at facilities which provide immunization services to children under five.



Table 4.3: Vaccine storage (if provided), ambulatory facilities

		Ba	seline		1st Fo	ollow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Stores vaccines	17	58.8	(32.9 - 81.6)	18	33.3	(13.3 - 59)	20	55	(31.5 - 76.9)
Collected from another health facility	17	23.5	(6.8 - 49.9)	18	16.7	(3.6 - 41.4)	20	0	(0 - 16.8)
Delivered when immunization services provided	17	17.6	(3.8 - 43.4)	18	44.4	(21.5 - 69.2)	20	45	(23.1 - 68.5)
Does not store vaccines	17	0.0	(0 - 19.5)	18	5.6	(0.1 - 27.3)	20	0	(0 - 16.8)

Table 4.4: Vaccine storage (if provided), basic facilities

		Bas	eline		1st Fo	ollow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Stores vaccines	16	81.2	(54.4 - 96)	17	100	(80.5 - 100)	17	100	(80.5 - 100)
Collected from another health facility	16	12.5	(1.6 - 38.3)	17	0	(0 - 19.5)	17	0	(0 - 19.5)
Delivered when immunization services provided	16	6.2	(0.2 - 30.2)	17	0	(0 - 19.5)	17	0	(0 - 19.5)
Does not store vaccines	16	0.0	(0 - 20.6)	17	0	(0 - 19.5)	17	0	(0 - 19.5)

# 4.3 Vaccine logistics: supply

Among those facilities which provide immunization services to children under five and store vaccines, representatives were also asked about vaccine supply logistics.

Table 4.5: Vaccine supply, ambulatory facilities

		Ва	seline		1st Fo	ollow-up		2nd Fo	llow-Up
	N	%	CI	N	%	CI	N	%	CI
Ordering strategy									
Determines own need	10	100	(69.2 - 100)	6	100.0	(54.1 - 100)	11	100.0	(71.5 - 100)
Need determined elsewhere	10	0	(0 - 30.8)	6	0.0	(0 - 45.9)	11	0.0	(0 - 28.5)
Both (differ by vaccine)	10	0	(0 - 30.8)	6	0.0	(0 - 45.9)	11	0.0	(0 - 28.5)
Time to receive supplies									
One day	10	80	(44.4 - 97.5)	6	66.7	(22.3 - 95.7)	11	72.7	(39 - 94)
2 - 7 days	10	20	(2.5 - 55.6)	6	33.3	(4.3 - 77.7)	11	27.3	(6 - 61)
More than one week	10	0	(0 - 30.8)	6	0.0	(0 - 45.9)	11	0.0	(0 - 28.5)
Reception of quantity ordered									
Always	10	60	(26.2 - 87.8)	6	66.7	(22.3 - 95.7)	11	72.7	(39 - 94)
Almost always	10	30	(6.7 - 65.2)	6	33.3	(4.3 - 77.7)	11	27.3	(6 - 61)
Almost never	10	10	(0.3 - 44.5)	6	0.0	(0 - 45.9)	11	0.0	(0 - 28.5)



Table 4.6: Vaccine supply, basic facilities

		Bas	eline		1st Fo	llow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Ordering strategy									
Determines own need	13	100.0	(75.3 - 100)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Need determined elsewhere	13	0.0	(0 - 24.7)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)
Both (differ by vaccine)	13	0.0	(0 - 24.7)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)
Time to receive supplies									
One day	12	25.0	(5.5 - 57.2)	17	70.6	(44 - 89.7)	17	11.8	(1.5 - 36.4)
2 - 7 days	12	50.0	(21.1 - 78.9)	17	29.4	(10.3 - 56)	17	47.1	(23 - 72.2)
More than one week	12	25.0	(5.5 - 57.2)	17	0.0	(0 - 19.5)	17	41.2	(18.4 - 67.1)
Reception of quantity ordered									
Always	13	38.5	(13.9 - 68.4)	17	52.9	(27.8 - 77)	16	50.0	(24.7 - 75.3)
Almost always	13	61.5	(31.6 - 86.1)	17	47.1	(23 - 72.2)	16	50.0	(24.7 - 75.3)
Almost never	13	0.0	(0 - 24.7)	17	0.0	(0 - 19.5)	16	0.0	(0 - 20.6)

<sup>\*</sup> One facility at baseline responded 'do not know' to reception time and was excluded.

# 4.4 Refrigerators for vaccine storage

In the observation component of the survey, interviewers observed the number and type of refrigerator used to store vaccines. Only facilities that either store, collect from other health units or have vaccines delivered immediately before application are displayed below. Facilities may have more than one type of fridge.

Table 4.7: Vaccine storage equipment, ambulatory facilities

		Ва	seline		1st F	ollow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Electric fridge	11	27.3	(6 - 61)	9	33.3	(7.5 - 70.1)	15	60.0	(32.3 - 83.7)
Kerosene fridge	11	27.3	(6 - 61)	9	0.0	(0 - 33.6)	15	0.0	(0 - 21.8)
Gas fridge	11	18.2	(2.3 - 51.8)	9	0.0	(0 - 33.6)	15	0.0	(0 - 21.8)
Solar fridge	11	45.5	(16.7 - 76.6)	9	33.3	(7.5 - 70.1)	15	6.7	(0.2 - 31.9)
Cold box	11	45.5	(16.7 - 76.6)	9	88.9	(51.8 - 99.7)	15	93.3	(68.1 - 99.8)

<sup>&</sup>lt;sup>†</sup> One facility at second follow-up responded 'do not know' to reception of quantity ordered and was excluded.



Table 4.8: Vaccine storage equipment, basic facilities

		Ва	seline		1st Fo	llow-up		2nd Follow-Up				
	N	%	CI	N	%	CI	N	%	CI			
Electric fridge	14	50.0	(23 - 77)	17	52.9	(27.8 - 77)	17	47.1	(23 - 72.2)			
Kerosene fridge	14	28.6	(8.4 - 58.1)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)			
Gas fridge	14	28.6	(8.4 - 58.1)	17	11.8	(1.5 - 36.4)	17	5.9	(0.1 - 28.7)			
Solar fridge	14	42.9	(17.7 - 71.1)	17	47.1	(23 - 72.2)	17	58.8	(32.9 - 81.6)			
Cold box	14	50.0	(23 - 77)	17	70.6	(44 - 89.7)	17	94.1	(71.3 - 99.9)			

#### 4.5 Vaccines observed

In the observation component of the survey, interviewers observed vaccine stock on the day of the survey according to vaccine registries. Vaccine stock was only evaluated at facilities which indicated that vaccines are stored on-site and for which vaccine registries were available.

Table 4.9: Vaccines observed, ambulatory facilities

		Ва	seline		1st Fo	ollow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Pentavalent (DPT + HepB + Hib)	4	100	(39.8 - 100)	6	83.3	(35.9 - 99.6)	9	100.0	(66.4 - 100)
Polio	4	75	(19.4 - 99.4)	6	100.0	(54.1 - 100)	9	100.0	(66.4 - 100)
Measles, mumps, rubella	4	100	(39.8 - 100)	6	50.0	(11.8 - 88.2)	9	88.9	(51.8 - 99.7)
Rotavirus	4	100	(39.8 - 100)	6	100.0	(54.1 - 100)	9	100.0	(66.4 - 100)
Pneumococcal conjugate	4	100	(39.8 - 100)	6	83.3	(35.9 - 99.6)	9	100.0	(66.4 - 100)
BCG	4	100	(39.8 - 100)	6	83.3	(35.9 - 99.6)	9	88.9	(51.8 - 99.7)
Influenza	4	100	(39.8 - 100)	6	83.3	(35.9 - 99.6)	9	88.9	(51.8 - 99.7)
Tetanus	4	50	(6.8 - 93.2)	6	100.0	(54.1 - 100)	9	100.0	(66.4 - 100)

<sup>\*</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



Table 4.10: Vaccines observed, basic facilities

		Ва	seline		1st Fo	ollow-up		2nd Fo	llow-Up
	N	%	CI	N	%	CI	N	%	CI
Pentavalent (DPT + HepB + Hib)	10	90	(55.5 - 99.7)	16	75.0	(47.6 - 92.7)	17	100.0	(80.5 - 100)
Polio	10	100	(69.2 - 100)	16	75.0	(47.6 - 92.7)	17	100.0	(80.5 - 100)
Measles, mumps, rubella	10	90	(55.5 - 99.7)	16	81.2	(54.4 - 96)	17	100.0	(80.5 - 100)
Rotavirus	10	100	(69.2 - 100)	16	81.2	(54.4 - 96)	17	94.1	(71.3 - 99.9)
Pneumococcal conjugate	10	100	(69.2 - 100)	16	75.0	(47.6 - 92.7)	17	100.0	(80.5 - 100)
BCG	10	100	(69.2 - 100)	16	81.2	(54.4 - 96)	17	100.0	(80.5 - 100)
Influenza	10	80	(44.4 - 97.5)	16	81.2	(54.4 - 96)	17	100.0	(80.5 - 100)
Tetanus	10	90	(55.5 - 99.7)	16	81.2	(54.4 - 96)	17	100.0	(80.5 - 100)

<sup>\*</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



# 5 Chapter 5: Family planning services

#### 5.1 Family planning services provision

This chapter summarizes key aspects of family planning services. In the questionnaire component of the survey, facility representatives were asked about family planning service provision. In the observation component, interviewers observed the setting of the room in which family planning services are provided, as well as the availability and stock of family planning methods.

Table 5.1: Family planning services provision, ambulatory facilities

		Ва	seline		1st Fo	ollow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers family planning services	21	85.7	(63.7 - 97)	22	31.8	(13.9 - 54.9)	22	81.8	(59.7 - 94.8)	
Family planning area										
Visual and auditory privacy	20	60.0	(36.1 - 80.9)	22	18.2	(5.2 - 40.3)	22	36.4	(17.2 - 59.3)	
Non private area	20	20.0	(5.7 - 43.7)	22	4.5	(0.1 - 22.8)	22	13.6	(2.9 - 34.9)	
Visual privacy only	20	0.0	(0 - 16.8)	22	9.1	(1.1 - 29.2)	22	4.5	(0.1 - 22.8)	
Other	20	5.0	(0.1 - 24.9)	22	4.5	(0.1 - 22.8)	22	0.0	(0 - 15.4)	
Do not provide service	20	15.0	(3.2 - 37.9)	22	63.6	(40.7 - 82.8)	22	45.5	(24.4 - 67.8)	

<sup>\*</sup> Family planning services area data missing for one facility at baseline.

Table 5.2: Family planning services provision, basic facilities

		Bas	seline		1st Fo	llow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers family planning services	17	94.1	(71.3 - 99.9)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)	
Family planning area										
Visual and auditory privacy	15	86.7	(59.5 - 98.3)	17	94.1	(71.3 - 99.9)	17	76.5	(50.1 - 93.2)	
Non private area	15	13.3	(1.7 - 40.5)	17	0.0	(0 - 19.5)	17	5.9	(0.1 - 28.7)	
Visual privacy only	15	0.0	(0 - 21.8)	17	5.9	(0.1 - 28.7)	17	17.6	(3.8 - 43.4)	
Other	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Do not provide service	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	

<sup>\*</sup> Family planning services area data missing for two facilities at baseline.

#### 5.2 Family planning services composite monitoring indicator

The family planning services composite indicator (7050) evaluates whether facilities have continuous three-month availability of appropriate contraceptive methods. The following table shows composite indicator performance among these facilities.



Table 5.3: Family planning composite indicator, ambulatory facilities

		1st Fo	llow-up	2nd Follow-Up				
	N	%	CI	N	%	CI		
Male condom	3	100.0	(29.2 - 100)	6	16.7	(0.4 - 64.1)		
Any oral pill	3	100.0	(29.2 - 100)	6	100.0	(54.1 - 100)		
Any injectable	3	100.0	(29.2 - 100)	6	100.0	(54.1 - 100)		
All methods continuously in stock in past three months	3	66.7	(9.4 - 99.2)	6	0.0	(0 - 45.9)		
Family planning services according to SMI standard	3	66.7	(9.4 - 99.2)	6	0.0	(0 - 45.9)		

<sup>\*</sup> Three-month stock data unavailable for some facilities at baseline.

Table 5.4: Family planning composite indicator, basic facilities

		Bas	eline		1st Fo	llow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Male condom	16	100.0	(79.4 - 100)	17	100.0	(80.5 - 100)	17	58.8	(32.9 - 81.6)	
Any oral pill	16	93.8	(69.8 - 99.8)	17	100.0	(80.5 - 100)	17	88.2	(63.6 - 98.5)	
Any injectable	16	87.5	(61.7 - 98.4)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)	
Intrauterine device	16	50.0	(24.7 - 75.3)	17	100.0	(80.5 - 100)	17	70.6	(44 - 89.7)	
IUD insertion kit	16	25.0	(7.3 - 52.4)	17	100.0	(80.5 - 100)	17	64.7	(38.3 - 85.8)	
All methods continuously in stock in past three months	16	12.5	(1.6 - 38.3)	17	88.2	(63.6 - 98.5)	17	5.9	(0.1 - 28.7)	
Family planning services according to SMI standard	16	12.5	(1.6 - 38.3)	17	88.2	(63.6 - 98.5)	17	5.9	(0.1 - 28.7)	

<sup>\*</sup> Three-month stock only evaluated for condoms, pills, and injectables at baseline evaluation.

The SMI 7050 indicator applies only to UBA facilities. Performance among UBA facilities is displayed below.

Table 5.3: Family planning composite indicator, ambulatory facilities

		1st F	ollow-up	2nd Follow-Up				
	N	%	CI	N	%	CI		
Male condom	2	100	(15.8 - 100)	2	50	(1.3 - 98.7)		
Any oral pill	2	100	(15.8 - 100)	2	100	(15.8 - 100)		
Any injectable	2	100	(15.8 - 100)	2	100	(15.8 - 100)		
All methods continuously in stock in past three months	2	50	(1.3 - 98.7)	2	0	(0 - 84.2)		
Family planning services according to SMI standard	2	50	(1.3 - 98.7)	2	0	(0 - 84.2)		

<sup>\*</sup> Three-month stock data unavailable for some facilities at baseline.

<sup>&</sup>lt;sup>†</sup> Three-month stock data unavailable for some facilities at baseline.



Table 5.4: Family planning composite indicator, basic facilities

		Bas	eline		1st Fo	llow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Male condom	16	100.0	(79.4 - 100)	17	100.0	(80.5 - 100)	17	58.8	(32.9 - 81.6)
Any oral pill	16	93.8	(69.8 - 99.8)	17	100.0	(80.5 - 100)	17	88.2	(63.6 - 98.5)
Any injectable	16	87.5	(61.7 - 98.4)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Intrauterine device	16	50.0	(24.7 - 75.3)	17	100.0	(80.5 - 100)	17	70.6	(44 - 89.7)
IUD insertion kit	16	25.0	(7.3 - 52.4)	17	100.0	(80.5 - 100)	17	64.7	(38.3 - 85.8)
All methods continuously in stock in past three months	16	12.5	(1.6 - 38.3)	17	88.2	(63.6 - 98.5)	17	5.9	(0.1 - 28.7)
Family planning services according to SMI standard	16	12.5	(1.6 - 38.3)	17	88.2	(63.6 - 98.5)	17	5.9	(0.1 - 28.7)

<sup>\*</sup> Three-month stock only evaluated for condoms, pills, and injectables at baseline evaluation.

# 5.3 Family planning procedures and surgeries

During the questionnaire component of the survey, interviewers assessed the capability of staff to perform family planning procedures and surgeries at basic facilities.

Table 5.5: Family planning procedures and surgeries, basic facilities

		Bas	seline	1	st Fo	ollow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Doctor trained in IUD insertion	-	-	-	-	-	-	17	76.5	(50.1 - 93.2)	
Nurse trained in IUD insertion	-	-	-	-	-	-	16	31.2	(11 - 58.7)	
Doctor trained in implant insertion	-	-	-	-	-	-	17	82.4	(56.6 - 96.2)	
Nurse trained in implant insertion	-	-	-	-	-	-	16	31.2	(11 - 58.7)	
Doctor trained in tubal ligation	14	0	(0 - 23.2)	17	0	(0 - 19.5)	17	11.8	(1.5 - 36.4)	
Doctor trained in vasectomy	14	0	(0 - 23.2)	17	0	(0 - 19.5)	17	11.8	(1.5 - 36.4)	

<sup>\*</sup> One facility at second follow-up responded 'do not know' to nurse trained in IUD insertion and one facility at second follow-up responded 'do not know' to nurse trained in implant insertion.

<sup>&</sup>lt;sup>†</sup> Three-month stock data unavailable for some facilities at baseline.



# 6 Chapter 6: Maternal health: antenatal care (ANC), delivery, and postpartum care (PPC)

#### 6.1 Service provision

This chapter summarizes key aspects of 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 reviewed antenatal care medical records in ambulatory and basic facilities, as well as delivery and postpartum care medical records in basic facilities.

Table 6.1: Antenatal care service provision, ambulatory facilities

		Ba	seline		1st Fo	ollow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers antenatal care services	21	57.1	(34 - 78.2)	22	45.5	(24.4 - 67.8)	22	63.6	(40.7 - 82.8)	
Antenatal care area										
Visual and auditory privacy	20	55.0	(31.5 - 76.9)	22	50.0	(28.2 - 71.8)	22	59.1	(36.4 - 79.3)	
Visual privacy only	20	0.0	(0 - 16.8)	22	4.5	(0.1 - 22.8)	22	9.1	(1.1 - 29.2)	
Non private area	20	15.0	(3.2 - 37.9)	22	9.1	(1.1 - 29.2)	22	9.1	(1.1 - 29.2)	
Do not provide service	20	25.0	(8.7 - 49.1)	22	31.8	(13.9 - 54.9)	22	22.7	(7.8 - 45.4)	

ANC/PPC area data missing for one facility at baseline.

Table 6.2: Antenatal care and delivery care service provision, basic facilities

		Ba	seline		1st Fo	llow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers antenatal care services	17	88.2	(63.6 - 98.5)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)	
Offers (non-urgent) delivery services	15	86.7	(59.5 - 98.3)	17	94.1	(71.3 - 99.9)	17	100.0	(80.5 - 100)	
Antenatal care area										
Visual and auditory privacy	15	93.3	(68.1 - 99.8)	17	100.0	(80.5 - 100)	17	76.5	(50.1 - 93.2)	
Visual privacy only	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	23.5	(6.8 - 49.9)	
Non private area	15	6.7	(0.2 - 31.9)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Do not provide service	15	0.0	(0 - 21.8)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	
Delivery area										
Visual and auditory privacy	13	92.3	(64 - 99.8)	17	100.0	(80.5 - 100)	17	76.5	(50.1 - 93.2)	
Visual privacy only	13	0.0	(0 - 24.7)	17	0.0	(0 - 19.5)	17	5.9	(0.1 - 28.7)	
Non private area	13	7.7	(0.2 - 36)	17	0.0	(0 - 19.5)	17	17.6	(3.8 - 43.4)	
Do not provide service	13	0.0	(0 - 24.7)	17	0.0	(0 - 19.5)	17	0.0	(0 - 19.5)	

<sup>\*</sup> Delivery provision data missing for two facilities at baseline.

<sup>&</sup>lt;sup>†</sup> ANC/PPC area data missing for two facilities at baseline.

<sup>&</sup>lt;sup>‡</sup> Delivery area data missing for four facilities at baseline.



#### 6.2 ANC and PNC equipment

Specific equipment and pharmacy inputs are necessary for antenatal and postpartum care, as defined by the monitoring indicator for ANC/PPC (7020). Facilities were only included in the indicator if surveyors entered into the ANC/PPC room during the observation. If the facility reported they do not provide such services during the observation, the facility was excluded from this indicator. Interviewers were instructed to observe and test for functionality (if possible) and, unless noted otherwise, the facility only needs to have at least one functioning piece of equipment on the day of the survey. The below tables list the equipment and percent of facilities that meet each component. The drugs and laboratory inputs necessary for child health care can be found in sections 6.3 and 6.4.

Table 6.3: Antenatal/postnatal care equipment observed and functional, ambulatory facilities

		Ва	seline		1st F	ollow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Scale	2	0	(0 - 84.2)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)	
Height rod	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)	
CLAP obstetric tape	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)	
Lamp	2	0	(0 - 84.2)	3	100	(29.2 - 100)	6	50.0	(11.8 - 88.2)	
Sphygmomanometer	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	83.3	(35.9 - 99.6)	
Stethoscope	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)	
Perinatal maternal medical history form	2	100	(15.8 - 100)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)	
Perinatal maternal card	2	100	(15.8 - 100)	3	100	(29.2 - 100)	6	100.0	(54.1 - 100)	
All ANC equipment observed and functioning	2	0	(0 - 84.2)	3	100	(29.2 - 100)	6	50.0	(11.8 - 88.2)	

Table 6.4: Antenatal/postnatal care equipment observed and functional, basic facilities

		Bas	eline		1st Fo	ollow-up		2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI		
Scale	13	92.3	(64 - 99.8)	17	100	(80.5 - 100)	17	88.2	(63.6 - 98.5)		
Height rod	13	84.6	(54.6 - 98.1)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)		
Gynecological exam table	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	82.4	(56.6 - 96.2)		
CLAP obstetric tape	13	61.5	(31.6 - 86.1)	17	100	(80.5 - 100)	17	82.4	(56.6 - 96.2)		
Lamp	13	46.2	(19.2 - 74.9)	17	100	(80.5 - 100)	17	70.6	(44 - 89.7)		
Sphygmomanometer	13	84.6	(54.6 - 98.1)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)		
Stethoscope	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	88.2	(63.6 - 98.5)		
Perinatal maternal medical history form	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)		
Perinatal maternal card	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)		
All ANC equipment observed and functioning	13	30.8	(9.1 - 61.4)	17	100	(80.5 - 100)	17	52.9	(27.8 - 77)		

The SMI 7020 indicator applies only to UBA facilities. Functional equipment required for ANC/PPC care at UBA facilities is detailed below.



Table 6.5: Antenatal/postnatal care equipment observed and functional, ambulatory UBA facilities

		Ва	seline		1st F	ollow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Scale	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Height rod	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
CLAP obstetric tape	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Lamp	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	50	(1.3 - 98.7)
Sphygmomanometer	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Stethoscope	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Perinatal maternal medical history form	2	100	(15.8 - 100)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Perinatal maternal card	2	100	(15.8 - 100)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
All ANC equipment observed and functioning	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	50	(1.3 - 98.7)

Table 6.6: Antenatal/postnatal care equipment observed and functional, basic UBA facilities

		Bas	eline		1st Fc	llow-up		2nd Fo	llow-Up
	N	%	CI	N	%	CI	N	%	CI
Scale	13	92.3	(64 - 99.8)	17	100	(80.5 - 100)	17	88.2	(63.6 - 98.5)
Height rod	13	84.6	(54.6 - 98.1)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)
Gynecological exam table	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	82.4	(56.6 - 96.2)
CLAP obstetric tape	13	61.5	(31.6 - 86.1)	17	100	(80.5 - 100)	17	82.4	(56.6 - 96.2)
Lamp	13	46.2	(19.2 - 74.9)	17	100	(80.5 - 100)	17	70.6	(44 - 89.7)
Sphygmomanometer	13	84.6	(54.6 - 98.1)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)
Stethoscope	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	88.2	(63.6 - 98.5)
Perinatal maternal medical history form	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)
Perinatal maternal card	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)
All ANC equipment observed and functioning	13	30.8	(9.1 - 61.4)	17	100	(80.5 - 100)	17	52.9	(27.8 - 77)

#### 6.3 ANC and PNC pharmacy inputs

During the observation component of the survey, interviewers evaluated the presence and stock of pharmacy inputs related to antenatal and postpartum care. The standards for ANC/PNC pharmacy inputs are determined by the SMI composite monitoring indicator (7020). Interviewers were instructed to observe each drug and review any kardex or written documentation for stock-out in the last three months. If the facility did not have three-month stock documentation at the second follow-up, the facility was considered to be stocked out of the drug and did not pass that portion of the indicator.



Table 6.7: Antenatal/postnatal care pharmacy inputs, ambulatory facilities

		Ва	seline		1st F	ollow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Ayre palettes / swabs	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	100	(54.1 - 100)
Microscope slides	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	100	(54.1 - 100)
Ferrous sulfate	2	100	(15.8 - 100)	3	100	(29.2 - 100)	6	100	(54.1 - 100)
All ANC drugs observed day of survey	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	100	(54.1 - 100)
All ANC drugs continuously available in past three months	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	50	(11.8 - 88.2)

Table 6.8: Antenatal/postnatal care pharmacy inputs, basic facilities

		Bas	eline		1st Fo	ollow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Ayre palettes / swabs	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)	
Microscope slides	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)	
Ferrous sulfate	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
All ANC drugs observed day of survey	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
All ANC drugs continuously available in past three months	13	53.8	(25.1 - 80.8)	17	100	(80.5 - 100)	17	58.8	(32.9 - 81.6)	

The SMI 7020 indicator applies only to UBA facilities. Pharmacy inputs required for ANC/PPC care at UBA facilities is detailed below.

Table 6.9: Antenatal/postnatal care pharmacy inputs, ambulatory UBA facilities

		Ва	seline		1st F	ollow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Ayre palettes / swabs	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Microscope slides	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
Ferrous sulfate	2	100	(15.8 - 100)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
All ANC drugs observed day of survey	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
All ANC drugs continuously available in past three months	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	0	(0 - 84.2)

Table 6.10: Antenatal/postnatal care pharmacy inputs, basic UBA facilities

		Bas	eline		1st Fo	ollow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Ayre palettes / swabs	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)	
Microscope slides	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)	
Ferrous sulfate	13	100.0	(75.3 - 100)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
All ANC drugs observed day of survey	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
All ANC drugs continuously available in past three months	13	53.8	(25.1 - 80.8)	17	100	(80.5 - 100)	17	58.8	(32.9 - 81.6)	



# 6.4 ANC/PNC composite indicator

The tables below displays performance on the SMI composite monitoring indicator for antenatal and postpartum care (7020). The below tables display all facilities that provide antenatal or postnatal care.

Table 6.11: Antenatal/postnatal care composite indicator, ambulatory facilities

		Ва	aseline		1st F	ollow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All equipment observed and functional	2	0	(0 - 84.2)	3	100	(29.2 - 100)	6	50	(11.8 - 88.2)
All drugs observed on the day of survey	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	100	(54.1 - 100)
All drugs continuously available in prior three months	2	50	(1.3 - 98.7)	3	100	(29.2 - 100)	6	50	(11.8 - 88.2)
Antenatal care provided according to SMI standards	2	0	(0 - 84.2)	3	100	(29.2 - 100)	6	50	(11.8 - 88.2)

Table 6.12: Antenatal/postnatal care composite indicator, basic facilities

		Ba	seline		1st Fo	llow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
All equipment observed and functional	13	30.8	(9.1 - 61.4)	17	100	(80.5 - 100)	17	52.9	(27.8 - 77)	
All drugs observed on the day of survey	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
All drugs continuously available in prior three months	13	53.8	(25.1 - 80.8)	17	100	(80.5 - 100)	17	58.8	(32.9 - 81.6)	
Antenatal care provided according to SMI standards	13	23.1	(5 - 53.8)	17	100	(80.5 - 100)	17	58.8	(32.9 - 81.6)	

The below tables display ANC/PPC care composite indicator performance among UBA facilities.

Table 6.13: Antenatal/postnatal care composite indicator, ambulatory UBA facilities

		Ва	aseline		1st F	ollow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All equipment observed and functional	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	50	(1.3 - 98.7)
All drugs observed on the day of survey	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	100	(15.8 - 100)
All drugs continuously available in prior three months	2	50	(1.3 - 98.7)	2	100	(15.8 - 100)	2	0	(0 - 84.2)
Antenatal care provided according to SMI standards	2	0	(0 - 84.2)	2	100	(15.8 - 100)	2	0	(0 - 84.2)

Table 6.14: Antenatal/postnatal care composite indicator, basic UBA facilities

		Ва	seline		1st Fc	llow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
All equipment observed and functional	13	30.8	(9.1 - 61.4)	17	100	(80.5 - 100)	17	52.9	(27.8 - 77)	
All drugs observed on the day of survey	13	76.9	(46.2 - 95)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)	
All drugs continuously available in prior three months	13	53.8	(25.1 - 80.8)	17	100	(80.5 - 100)	17	58.8	(32.9 - 81.6)	
Antenatal care provided according to SMI standards	13	23.1	(5 - 53.8)	17	100	(80.5 - 100)	17	58.8	(32.9 - 81.6)	



#### 6.5 Delivery care equipment

The delivery care monitoring indicator (7040) determines equipment and pharmacy inputs necessary for delivery care in basic facilities. Facilities were only included in the indicator if surveyors entered into the delivery room during the observation. If the facility reported they do not provide such services during the observation, the facility was excluded from this indicator. Interviewers were instructed to observe and test for functionality (if possible) and, unless noted otherwise, the facility only needs to have at least one functioning piece of equipment on the day of the survey. The tables below list the equipment and percent of facilities that meet each component.

Table 6.15: Delivery care equipment, basic facilities

		Bas	eline		1st Fo	llow-up		2nd Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
IV serum equipment	14	71.4	(41.9 - 91.6)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Sterile blanket/sheet for newborn	14	71.4	(41.9 - 91.6)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Intravenous catheter #18	14	100.0	(76.8 - 100)	17	94.1	(71.3 - 99.9)	17	100.0	(80.5 - 100)
Metallic/plastic ribbon or clamp for umbilical cord	14	92.9	(66.1 - 99.8)	17	100.0	(80.5 - 100)	17	100.0	(80.5 - 100)
Infusion equipment	14	92.9	(66.1 - 99.8)	17	70.6	(44 - 89.7)	17	41.2	(18.4 - 67.1)
Urinary catheter	14	92.9	(66.1 - 99.8)	17	58.8	(32.9 - 81.6)	17	29.4	(10.3 - 56)
All delivery equipment observed and functioning	14	42.9	(17.7 - 71.1)	17	41.2	(18.4 - 67.1)	17	17.6	(3.8 - 43.4)

#### 6.6 Delivery care pharmacy inputs

During the observation component of the survey, interviewers evaluated the presence and stock of pharmacy inputs related to delivery care. The standards for delivery care pharmacy inputs are determined by the SMI composite monitoring indicator (7040). Interviewers were instructed to observe each drug and review any kardex or written documentation for stock-out in the last three months. If the facility did not have three-month stock documentation at the second follow-up, the facility was considered to be stocked out of the drug and did not pass that portion of the indicator. All basic facilities detailed below are UBA facilities.

Table 6.16: Delivery care pharmacy inputs, basic facilities

		Bas	eline		1st Fo	llow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Ergometrine / ergonovine maleate / oxytocin	14	92.9	(66.1 - 99.8)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)
Hyoscine butylbromide / butylhyoscine	14	85.7	(57.2 - 98.2)	17	100	(80.5 - 100)	17	82.4	(56.6 - 96.2)
Ringer's lactate / Hartmann's solution / saline	14	100.0	(76.8 - 100)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)
Ophthalmic chloramphenicol / silver nitrate / gentamicin / fusidic acid	14	92.9	(66.1 - 99.8)	17	100	(80.5 - 100)	17	94.1	(71.3 - 99.9)
Vitamin K	14	92.9	(66.1 - 99.8)	17	100	(80.5 - 100)	17	100.0	(80.5 - 100)
All ANC drugs observed day of survey	14	78.6	(49.2 - 95.3)	17	100	(80.5 - 100)	17	76.5	(50.1 - 93.2)
All ANC drugs continuously available in past three months	14	78.6	(49.2 - 95.3)	17	100	(80.5 - 100)	17	47.1	(23 - 72.2)



#### 6.7 Delivery composite indicator

The table below display performance on the SMI composite monitoring indicator for delivery care (7040). This indicator is evaluated at all basic facilities that provide delivery care. All basic facilities detailed below are UBA facilities.

Table 6.17: Delivery care composite indicator, basic facilities

		Ва	seline		1st Fo	llow-up	2nd Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
All equipment observed and functional	14	42.9	(17.7 - 71.1)	17	41.2	(18.4 - 67.1)	17	17.6	(3.8 - 43.4)	
All drugs observed on the day of survey	14	78.6	(49.2 - 95.3)	17	100.0	(80.5 - 100)	17	76.5	(50.1 - 93.2)	
All drugs continuously available in prior three months	14	78.6	(49.2 - 95.3)	17	100.0	(80.5 - 100)	17	47.1	(23 - 72.2)	
Antenatal care provided according to SMI standards	14	42.9	(17.7 - 71.1)	17	41.2	(18.4 - 67.1)	17	5.9	(0.1 - 28.7)	

#### 6.8 Medical record review: timely first antenatal care visit

Doctors and nurses systematically selected and reviewed antenatal care (ANC) records from ambulatory and basic facilities for women who delivered in the last two years. Records were evaluated on the timeliness of the first ANC visit according to gestational age. As defined the SMI performance indicator (3040), the first antenatal care visit should occur before thirteen weeks of gestation. Gestational age at first visit was reported at the first and second follow-up evaluations and calculated at the baseline evaluation.

Table 6.18: Timely first ANC visit, ambulatory facilities

		Ва	aseline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
First ANC visit before 13 weeks	40	35	(20.6 - 51.7)	46	30.4	(17.7 - 45.8)	90	40	(29.8 - 50.9)	

Table 6.19: Timely first ANC visit, basic facilities

		Ва	seline		First Fc	llow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
First ANC visit before 13 weeks	121	38	(29.3 - 47.3)	270	28.1	(22.9 - 33.9)	346	28.9	(24.2 - 34)	



Baseline

First follow-up

Gestational age at first ANC visit (weeks)

Figure 6.1: Histogram comparison of first ANC visit, by collection period

#### 6.9 Medical Record Review: four antenatal care visits according to SMI standard

Doctors and nurses systematically selected and reviewed antenatal care (ANC) records from ambulatory facilities for women who delivered in the last two years. According to the SMI monitoring indicator (3030), which determines the standards for antenatal care, women should receive at least four antenatal care visits with appropriate check ups (weight + blood pressure + fundal height + evaluation for the presence of edema + reflex) at each visit, fetal heart rate + fetal movement if gestational age is > 20 weeks, and should receive each standard lab test at least once during the pregnancy. The tables below display the percentage of medical records for which the standards for antenatal care were met.

Table 6.20: At least four antenatal care visits to standard, ambulatory facilities

		Ва	seline		1st F	ollow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
At least four ANC visits	41	63.4	(46.9 - 77.9)	47	48.9	(34.1 - 63.9)	91	54.9	(44.2 - 65.4)
All appropriate checks performed, at least four ANC visits	41	48.8	(32.9 - 64.9)	47	0.0	(0 - 7.5)	91	0.0	(0 - 4)
All lab tests performed at least once during pregnancy:	41	26.8	(14.2 - 42.9)	47	0.0	(0 - 7.5)	91	7.7	(3.1 - 15.2)
Blood group	41	39.0	(24.2 - 55.5)	47	78.7	(64.3 - 89.3)	91	45.1	(34.6 - 55.8)
Rh factor	41	39.0	(24.2 - 55.5)	47	78.7	(64.3 - 89.3)	91	45.1	(34.6 - 55.8)
Blood glucose	41	43.9	(28.5 - 60.3)	47	83.0	(69.2 - 92.4)	91	42.9	(32.5 - 53.7)
HIV test	26	53.8	(33.4 - 73.4)	47	89.4	(76.9 - 96.5)	91	61.5	(50.8 - 71.6)
Hemoglobin	41	61.0	(44.5 - 75.8)	47	80.9	(66.7 - 90.9)	91	33.0	(23.5 - 43.6)
Urinalysis	41	41.5	(26.3 - 57.9)	47	85.1	(71.7 - 93.8)	91	46.2	(35.6 - 56.9)
Platelet count	26	38.5	(20.2 - 59.4)	47	36.2	(22.7 - 51.5)	91	23.1	(14.9 - 33.1)
Uric acid in blood	-	-	-	47	2.1	(0.1 - 11.3)	91	9.9	(4.6 - 17.9)
Uric acid in urine	-	-	-	47	0.0	(0 - 7.5)	91	19.8	(12.2 - 29.4)
VDRL / RPR	41	41.5	(26.3 - 57.9)	47	89.4	(76.9 - 96.5)	91	46.2	(35.6 - 56.9)
Antenatal care performed according to standard	41	22.0	(10.6 - 37.6)	47	0.0	(0 - 7.5)	91	0.0	(0 - 4)

<sup>\*</sup> At the baseline, fetal checks and fundal height were captured only if gestational age at the first visit was eligible.

<sup>&</sup>lt;sup>†</sup> RPR not captured as VDRL alternative at baseline and first follow-up.

<sup>&</sup>lt;sup>‡</sup> HIV test and platelet count not captured for some records at baseline.

 $<sup>^{\</sup>S}$  Uric acid data not captured for some records at baseline.



Table 6.21: At least four antenatal care visits to standard, basic facilities

		Bas	eline		1st Fo	llow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
At least four ANC visits	121	70.2	(61.3 - 78.2)	289	63.0	(57.1 - 68.6)	350	74.3	(69.4 - 78.8)
All appropriate checks performed, at least four ANC visits	121	62.0	(52.7 - 70.7)	289	0.0	(0 - 1.3)	350	0.0	(0 - 1)
All lab tests performed at least once during pregnancy:	121	43.8	(34.8 - 53.1)	289	0.0	(0 - 1.3)	350	2.6	(1.2 - 4.8)
Blood group	121	71.9	(63 - 79.7)	289	78.5	(73.4 - 83.1)	350	80.6	(76 - 84.6)
Rh factor	121	71.9	(63 - 79.7)	289	76.8	(71.5 - 81.6)	350	80.6	(76 - 84.6)
Blood glucose	121	64.5	(55.2 - 73)	289	66.8	(61 - 72.2)	350	61.1	(55.8 - 66.3)
HIV test	-	-	-	289	77.9	(72.6 - 82.5)	350	76.9	(72.1 - 81.2)
Hemoglobin	121	76.0	(67.4 - 83.3)	289	68.5	(62.8 - 73.8)	350	57.1	(51.8 - 62.4)
Urinalysis	121	64.5	(55.2 - 73)	289	74.7	(69.3 - 79.6)	350	78.0	(73.3 - 82.2)
Platelet count	-	-	-	289	32.5	(27.2 - 38.3)	350	43.4	(38.2 - 48.8)
Uric acid in blood	-	-	-	289	3.5	(1.7 - 6.3)	350	9.7	(6.8 - 13.3)
Uric acid in urine	-	-	-	289	0.7	(0.1 - 2.5)	350	23.4	(19.1 - 28.2)
VDRL / RPR	121	54.5	(45.2 - 63.6)	289	74.4	(69 - 79.3)	350	61.1	(55.8 - 66.3)
Antenatal care performed according to standard	121	34.7	(26.3 - 43.9)	289	0.0	(0 - 1.3)	350	0.0	(0 - 1)

<sup>\*</sup> At the baseline, fetal checks and fundal height were captured only if gestational age at the first visit was eligible.

## 6.10 Medical record review: Partograph revision

Doctors and nurses systematically selected and reviewed uncomplicated delivery records from basic facilities in the past two years. During this review, delivery records were evaluated for SURCO partograph completion. Standards for the partograph are determined by the SMI monitoring indicator (4060). Partograph data from the baseline evaluation does not apply to this indicator. Of the 315 uncomplicated delivery records collected from basic facilities, only 25 had a partograph included and complete that could be evaluated for this indicator.

 $<sup>^{\</sup>dagger}\,$  RPR not captured as VDRL alternative at baseline and first follow-up.

 $<sup>\</sup>ensuremath{^{\ddagger}}$  Uric acid, HIV test, and platelet count data not captured for some records at baseline.



Table 6.22: Partograph revision, basic facilities

		1st Fol	llow-up		2nd F	ollow-Up
	N	%	CI	N	%	CI
Fetal heart rate	116	88.8	(81.6 - 93.9)	26	92.3	(74.9 - 99.1)
Observation of membranes	116	35.3	(26.7 - 44.8)	26	15.4	(4.4 - 34.9)
Observation of amniotic fluid	116	34.5	(25.9 - 43.9)	26	19.2	(6.6 - 39.4)
Evolution of cervical fluid	116	96.6	(91.4 - 99.1)	26	65.4	(44.3 - 82.8)
Evolution of cephalic descent	116	89.7	(82.6 - 94.5)	26	26.9	(11.6 - 47.8)
Fetal evaluation	116	97.4	(92.6 - 99.5)	26	15.4	(4.4 - 34.9)
Contraction	116	95.7	(90.2 - 98.6)	26	34.6	(17.2 - 55.7)
Fetal presentation	116	95.7	(90.2 - 98.6)	26	19.2	(6.6 - 39.4)
Mother's pulse	116	90.5	(83.7 - 95.2)	26	80.8	(60.6 - 93.4)
Mother's blood pressure	116	100.0	(96.9 - 100)	26	92.3	(74.9 - 99.1)
If fetal heart rate decrease, action taken	1	100.0	(2.5 - 100)	-	-	-
If referral, reason given	4	100.0	(39.8 - 100)	-	-	-
Partograph filled according to standard	116	19.0	(12.3 - 27.3)	26	3.8	(0.1 - 19.6)

<sup>\*</sup> Fetal evaluation not captured at baseline.

#### 6.11 Medical record review: active management of the third stage of labor

Doctors and nurses systematically selected and reviewed delivery records from basic facilities for women who delivered in the last two years. According to the SMI performance indicator (4095), which determines the standards for active management of the third stage of labor, oxytocin or another uterotonic should be administered after birth.

Table 6.23: Active management of third stage of labor, basic facilities

		Bas	eline	F	irst Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Oxytocin administered	157	78.3	(71.1 - 84.5)	243	93	(89 - 95.9)	315	85.4	(81 - 89.1)
Other uterotonic administered	157	0.0	(0 - 2.3)	208	0	(0 - 1.8)	309	0.0	(0 - 1.2)
Active management of third stage of labor	157	78.3	(71.1 - 84.5)	243	93	(89 - 95.9)	315	85.4	(81 - 89.1)

<sup>\*</sup> Other uterotonic administration was not a required question in the survey.

#### 6.12 Medical record review: immediate maternal postpartum care

Doctors and nurses reviewed immediate postpartum records from uncomplicated deliveries in the past two years at basic and complete facilities. Standards for immediate postpartum care are determined by



the SMI monitoring indicator (4050). Delivery patients must have all appropriate checks performed four times in the first hour after deliver, twice in the second hour, and once at discharge.

Table 6.24: Immediate maternal postpartum care, basic facilities

		Base	eline		1st Fo	llow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Checked 4 times in first hour,	twice	in se	cond hour,	once a	at disch	arge:			
Blood pressure	158	0	(0 - 2.3)	221	79.2	(73.2 - 84.3)	302	0	(0 - 1.2)
Temperature	158	0	(0 - 2.3)	221	78.3	(72.3 - 83.5)	302	0	(0 - 1.2)
Heart rate / pulse	158	0	(0 - 2.3)	221	78.7	(72.7 - 83.9)	302	0	(0 - 1.2)
Respiratory rate	158	0	(0 - 2.3)	221	73.3	(67 - 79)	302	0	(0 - 1.2)
Postpartum care to standard	158	0	(0 - 2.3)	221	71.5	(65.1 - 77.3)	302	0	(0 - 1.2)

<sup>\*</sup> Heart rate not captured as an alternative to pulse at baseline and first follow-up.

#### 6.13 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. However, data for community delivery plans was unavailable during the second follow-up evaluation. At the first follow-up, there were 16 communities that were required to have a delivery plan with a specified UBA health facility in our sample. Their performance during that round is detailed in the below table.

Table 6.25: Communities that have a delivery plan and all its components at a health facility (7740)

		1st Fo	llow-up
	N	%	CI
Plan exists at facility	16	50.0	(24.7 - 75.3)
If plan exits at facility:			
Plan observed	8	100.0	(63.1 - 100)
Community leader signature	8	100.0	(63.1 - 100)
Doctor / nurse signature	8	100.0	(63.1 - 100)
Individual delivery plan format	8	100.0	(63.1 - 100)
Name of transportation facility	8	75.0	(34.9 - 96.8)
All components of delivery plan observed	16	37.5	(15.2 - 64.6)



# 7 Chapter 7: Infection control

# 7.1 Disposal equipment and methodology

During the questionnaire component of the survey, facility representatives were asked about equipment and methodology pertaining to infection control and biohazard disposal.

Table 7.1: Infection control and disposal, ambulatory facilities

		Bas	eline		1st Fo	llow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Incinerator at facility	21	9.5	(1.2 - 30.4)	22	18.2	(5.2 - 40.3)	22	9.1	(1.1 - 29.2)
Contract with other facility for disposal (if no incinerator)	19	0.0	(0 - 17.6)	18	5.6	(0.1 - 27.3)	20	5.0	(0.1 - 24.9)
Manual for decontamination	21	14.3	(3 - 36.3)	21	9.5	(1.2 - 30.4)	22	9.1	(1.1 - 29.2)

 $<sup>^{\</sup>ast}$  One facility indicated 'do not know' to decontamination manual at first follow-up and was excluded.

Table 7.2: Infection control and disposal, basic facilities

		Ba	seline		1st Fo	llow-up	2nd Follow-Up		
	N	%	CI	N	%	CI	Ν	%	CI
Incinerator at facility	17	0.0	(0 - 19.5)	17	23.5	(6.8 - 49.9)	17	23.5	(6.8 - 49.9)
Contract with other facility for disposal (if no incinerator)	16	0.0	(0 - 20.6)	13	0.0	(0 - 24.7)	13	7.7	(0.2 - 36)
Manual for decontamination	14	7.1	(0.2 - 33.9)	17	52.9	(27.8 - 77)	17	23.5	(6.8 - 49.9)

 $<sup>^{\</sup>ast}$  One facility indicated 'do not know' to contract with another facility and was excluded.

 $<sup>^{\</sup>dagger}$  Three facilities indicated 'do not know' to decontamination manual at baseline and were excluded.



# **Appendix A: Indicator matrices**

**Table A.1: Performance indicator matrix** 

			Bas	eline		First Fo	ollow-Up	Second Follow-Up				
Code	Description	N	%	CI	N	%	CI	N	%	CI		
3040	Timely first ANC visit	161	37.3	(29.8 - 45.2)	316	28.5	(23.6 - 33.8)	436	31.2	(26.9 - 35.8)		
4095	Oxytocin administration	157	78.3	(71.1 - 84.5)	243	93.0	(89 - 95.9)	315	85.4	(81 - 89.1)		

**Table A.2: Monitoring indicator matrix** 

			Baseline			First Fo	llow-Up	Second Follow-Up		
Code	Description	N	%	CI	N	%	CI	N	%	CI
3030	Four+ ANC visits to standard	162	31.5	(24.4 - 39.2)	336	0.0	(0 - 1.1)	441	0.0	(0 - 0.8)
4050	Immediate maternal postpartum care	158	0.0	(0 - 2.3)	221	71.5	(65.1 - 77.3)	302	0.0	(0 - 1.2)
4060	SURCO partograph revision	18	11.1	(1.4 - 34.7)	116	19.0	(12.3 - 27.3)	26	3.8	(0.1 - 19.6)
7010	Childcare services composite	17	5.9	(0.1 - 28.7)	19	84.2	(60.4 - 96.6)	19	26.3	(9.1 - 51.2)
7020	Pre/postnatal care composite	15	20.0	(4.3 - 48.1)	19	100.0	(82.4 - 100)	19	52.6	(28.9 - 75.6)
7040	Delivery care composite	14	42.9	(17.7 - 71.1)	17	41.2	(18.4 - 67.1)	17	5.9	(0.1 - 28.7)
7050	Family planning composite	16	12.5	(1.6 - 38.3)	19	84.2	(60.4 - 96.6)	19	5.3	(0.1 - 26)
7192	Personnel availability 24/7	15	60.0	(32.3 - 83.7)	17	76.5	(50.1 - 93.2)	17	94.1	(71.3 - 99.9)
7710	Monthly AIN-C reports	-	-	-	15	53.3	(26.6 - 78.7)	-	-	-
7740	Community delivery plans	-	-	-	16	87.5	(61.7 - 98.4)	-	-	-



# **Appendix B: Indicator Definitions**

#### 7.2 Performance indicators

3040: Women of reproductive age who attended their first antenatal care (ANC) visit before 13 weeks gestation in the last two years

Denominator:

Total number of antenatal care records in the sample

Formula:

Ambulatory: Observe the following in the record: woman had the first ANC at <13 weeks gestation

4095: Oxytocin/other uterotonic administration following delivery in the last two years

Denominator:

Total number of in-facility delivery records in the last two years in our sample at basic facilities

Formula:

Basic: Observe the following in the record: oxytocin/other uterotonic was administered after delivery



#### 7.3 Monitoring indicators

3030: Women of reproductive age who received at least four antenatal care (ANC) visits to standard for their most recent pregnancy in the last two years and attended a health facility for antenatal care

Denominator:

Total number of ANC records at ambulatory and basic facilities in the last two years

Formula:

Ambulatory & Basic: Observe the following in the record: woman had at least 4 ANC visits + physical checkups performed at each visit (weight + blood pressure + fundal height + presence of edema + reflex + fetal heart rate (if gestational age >20 weeks) + fetal movement (if gestational age >20 weeks)). Lab tests performed at least once: Blood group + Rh factor + Blood glucose + HIV test + Hemoglobin + Urinalysis + Platelet count + Uric acid in blood + Uric acid in urine + VDRL / RPR

4050: Postpartum patients who were evaluated and registered for appropriate care post-delivery in clinical records in the last two years

Denominator:

Total number of postpartum records at basic facilities

Formula:

Basic: Observe the following in the record: Woman was checked for blood pressure + temperature + heart rate/pulse + respiratory rate four times in the first hour after delivery, twice in the second hour, and once at discharge.

4060: SURCO partograph completion for uncomplicated deliveries in last two years

Denominator:

Total number of delivery records at basic facilities that included a partograph

Formula:

Basic: Observe the following in the record: Fetal heart rate + Observation of membranes + Observation of amniotic fluid + Evolution of cervical fluid + Evolution of cephalic descent + Fetal evaluation + Contraction + Fetal presentation + Mother's pulse + Mother's blood pressure + If fetal heart rate decrease, action taken + If referral, reason given

7010: Child care services

Denominator:

Total number of UBA facilities that provide child care services



#### Formula:

#### Ambulatory and Basic:

Observe the following in the facility: Continuous three month supply of the following drugs: Oral rehydration salts + Zinc sulfate / gluconate / oxide + Albendazole / Mebendazole + Iron + Vitamin A

#### 7020: Antenatal/postnatal care services

Denominator:

Total number of UBA facilities that provide pre/postnatal care services

Formula:

Ambulatory:

Observe the following in the facility: Scale + Height rod + CLAP obstetric tape + Lamp + Sphygmomanometer + Stethoscope + Perinatal maternal medical history form + Perinatal maternal card + Continuous three month supply of the following drugs: Ayre palettes / swabs + Microscope plates + Iron sulfate

#### Basic:

Observe the following in the facility: Scale + Height rod + Gynecological exam table + CLAP obstetric tape + Lamp + Sphygmomanometer + Stethoscope + Perinatal maternal medical history form + Perinatal maternal card + Continuous three month supply of the following drugs: Ayre palettes / swabs + Microscope plates + Iron sulfate

#### 7040: Delivery care services

Denominator:

Total number of basic UBA facilities that provide delivery care services

Formula:

Basic: Observe the following in the facility: IV serum equipment + Sterile blanket/sheet for newborn + Intravenous catheter #18 + Metallic/plastic ribbon or clamp for umbilical cord + Infusion equipment + Urinary catheter + Continuous three month supply of the following drugs: Ergometrine / ergonovine maleate / oxytocin + Hyoscine butylbromide / butylhyoscine + Ringer's lactate / Hartmann's solution / saline + Ophthalmic chloramphenicol / silver nitrate / gentamicin / fusidic acid + Vitamin K

#### 7050: Family planning services

Denominator:

Total number of UBA facilities that store family planning methods

Formula:



#### Ambulatory:

Observe the following in the facility: continuous three month supply of the following family planning methods: male condoms + oral contraceptive pill + injectable

Basic:

Observe the following in the facility: continuous three month supply of the following family planning methods: male condoms + oral contraceptive pill + injectable + intrauterine device + IUD. IUD insertion kit is only required on the day of the survey.

#### 7192: Personnel availability 24/7

Denominator:

Total number of basic facilities

Formula:

Basic:

Observe the following in the facility: Availability of a doctor or nurse 24 hours a day, 7 days a week

#### 7710: Monthly AIN-C reports (first follow-up only)

Denominator:

Total number of UBA facilities

Formula:

**UBA** facilities:

Observe the following in the facility: Availability of AIN-C registry in which 80% of children under 24 months are registered with weight for a given month

#### 7740: Community delivery plans (first follow-up only)

Denominator:

Total number of communities with a specified UBA health facility

Formula:

Per community:

Observe the following in the facility: 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