

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

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#### **Foreword**

This Data Quality Report on the Salud Mesoamérica Initiative (SMI) Mexico 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.

#### **Lead authors**

Casey Johanns, BS - Data Specialist, IHME

Ali H. Mokdad, PhD - Professor, IHME

Bernardo Hernandez, MS, DSc - Associate Professor, IHME

Charbel El Bcheraoui, PhD, MSc - Assistant Professor, IHME

#### **Contributing authors**

Joseph Camarda, BA - Data Analyst, IHME

Rebecca Cogen, BA - Data Analyst, IHME

Emily Dansereau, MPH - Research Assistant, IHME

Emily Linebarger, BA - Data Analyst, IHME

Erin Palmisano, BA - Research Manager, IHME

Katie Panhorst Harris, MPA - Evaluation Specialist, IHME

Alexandra Schaefer, BA - Technical Project Coordinator, IHME Max Thom, BS - Data Analyst, IHME

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# 1 Chapter 1: Survey Methodology

#### 1.1 Overview

The 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 aid (RBA) 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 Mexico, baseline data were collected at households and health facilities in intervention and comparison areas (2012). The first follow-up data collection (2014) and performance improvement plan measurement (2015) took place at health facilities in intervention areas only, however, medical record review was not conducted at the performance improvement plan measurement round. This second follow-up measurement was performed at households and health facilities in intervention and comparison areas (2018). The following report details data collected from health facilities. This report focuses on health facility content and performance in intervention areas, with tables and figures for comparison areas only included in Appendix B and data collected for all facilities combined in Appendix D.

#### 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.

#### 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, and 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, also reviewing 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 in the case of various medical complications that women and infants experience, as well as the care provided before, during, and after uncomplicated deliveries.

## 1.4 Sampling

#### 1.4.1 Health facility sampling

For this evaluation, a sample of 60 intervention-area health facilities was selected from a list of all facilities serving the 26 municipalities covered by the SMI initiative, located in the jurisdictions of Ocosingo, Palenque, Pichucalco, and San Cristobal de las Casas. This list was constructed according to a referral network outlined by the Ministry of Health. Facilities are grouped according to three levels of Essential Obstetric and Neonatal Care (EONC) services provided: ambulatory, basic, and complete. Ambulatory facilities provide outpatient care, basic facilities are able to attend uncomplicated deliveries and provide immediate emergency obstetric and neonatal care, and complete facilities have surgical capacity in addition to the services above and have capacity to attend complicated deliveries.

All basic and complete facilities in the study area are included in order to ensure sufficient sample size for the medical record-derived indicators relating to delivery, and ambulatory-level facilities are selected to complete the sample. First, all ambulatory health facilities assigned to serve a community selected for the SMI-Mexico household census are added to the sampling frame. If the size of this list exceeds the desired sample size, then the sample is randomly selected from this list of facilities. Facilities are selected at random if they were visited at baseline until a sample size of 23 in intervention areas is reached. If the sample still has not reached 23, facilities are selected at random from the list of places not visited at baseline until a sample size of 23 in intervention areas is reached. Two backup facilities per municipality are selected in case sampled facilities cannot be interviewed due to security or logistic concerns. Two ambulatory facilities in intervention areas were replaced due to closures. One ambulatory facility in the comparison area was replaced due to problems with safety and access, however, this facility was replaced a total of four times due to facility closures in the first three backups. These replacement facilities were selected from a designated list of back-up facilities within the respective municipalities.

#### 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. Cases of diarrhea were evaluated in ambulatory facilities, and records of antenatal care were evaluated in both ambulatory and basic facilities. In addition, records of delivery, immediate postpartum care, maternal complications and neonatal complications were evaluated at the basic and complete level of facility.

Medical record review quotas are set per facility by dividing the total number of records to be reviewed in intervention and comparison 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. Cases of obstetric and neonatal complications were sampled at random from Ministry of Health registries and, if required, additional cases were sampled using a systematic sampling technique in-facility.

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 20 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 Mexico from January 29, 2018 - February 8, 2018. Five doctors and seven nurses were trained to conduct the health facility surveys. All ECOSUR contracted employees underwent training led by IHME. Teams were split into their respective groups and 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. Household surveyors participated in a two-day pilot data collection exercise in communities that were not selected to be part of the SMI sample, where they applied the census and household survey. Health facility surveyors participated in a two-day 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 Mexico Ministry of Health provided oversight during pilot exercises. IHME and ECOSUR 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.

#### 1.5.3 Data collection and management

As described in Section 1.5.1, 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 Mexico, data collection was conducted from January to July 2018.

# 1.5.4 Data analysis and report writing

Data analysis was conducted at IHME. Analysis was done using STATA version 14 and R version 3. This report provides data summaries for intervention and comparison area facilities and medical records in Mexico.



# 2 Chapter 2: Facility-level infrastructure, resources, management, and support

# 2.1 General description

#### 2.1.1 Health facility classification

A total of 60 facilities in intervention areas were surveyed for the second follow-up evaluation. Forty-six ambulatory EONC health units, twelve basic EONC units, and two complete EONC units were included in the sample. These health units are displayed by facility classification for all evaluation rounds in Table 2.1. Between the first follow-up and second follow-up evaluation rounds, community hospitals were reclassified from complete facilities to basic facilities.

Table 2.1: Health facility classification

EONC	Baseline	First Follow-Up	Second Follow-Up
Ambulatory	41	46	46
Basic	11	7	12
Complete	8	7	2
Total	60	60	60

## 2.1.2 Geographical representation

Table 2.2 displays the locations of health facilities by jurisdiction and municipality in intervention areas from the baseline to second follow-up. Figure 2.1 is a graph of all intervention health facilities visited at the second follow-up evaluation.

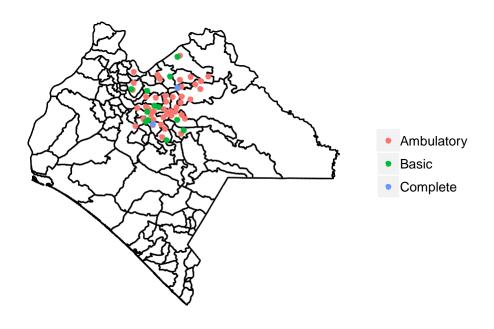


Table 2.2: Number of facilities by municipality and jurisdiction

Municipality	Baseline Facilities	First Follow-up Facilities	Second Follow-up Facilities
Ocosingo			
Chilón	7	6	5
Sitalá	-	1	1
Palenque			
Sabanilla	-	1	1
Salto de Agua	4	6	4
Tila	3	1	2
Tumbalá	-	3	2
Yajalón	2	3	3
Pichucalco			
Amatán	2	3	1
El Bosque	-	-	1
Pueblo Nuevo Solistahuacán	1	1	3
San Andrés Duraznal	-	1	-
Simojovel	1	2	1
San Cristobal De Las Casas			
Aldama	2	1	1
Chalchihuitán	1	1	2
Chamula	5	4	5
Chanal	2	1	2
Chenalhó	3	4	3
Huixtán	3	2	1
Larráinzar	2	1	2
Oxchuc	5	3	4
Pantelhó	2	2	2
San Cristóbal de las Casas	4	4	3
San Juan Cancuc	6	2	4
Santiago El Pinar	1	1	1
Tenejapa	1	1	2
Teopisca	2	3	2
Zinacantán	1	2	2
Total	60	60	60



Figure 2.1: Geographical representation of facilities



#### 2.1.3 Medical record extraction

The medical record review component of the study included a review of 1,897 medical records at the second follow-up evaluation. The number and type of medical records reviewed varied depending on the type of facility and services provided. Records of antenatal care and diarrhea cases were collected from ambulatory and basic facilities at the second follow-up evaluation. Records of uncomplicated deliveries, immediate postpartum care, and maternal and neonatal complications were collected from basic and complete facilities at 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 20 months prior to the start of data collection because interventions were not complete until this time.

The neonatal and maternal complications baseline record count shown in Table 2.3 displays the total number of medical records collected throughout this study. Maternal and neonatal complications were collected during the baseline data collection round (January 2011 - January 2013). The complications were also re-collected for 2011-2013, including the entire year of 2013, during the second follow-up evaluation. Maternal and neonatal medical records from 2011-2013 were recollected at the second follow-up evaluation to capture relevant data that reflect updated indicator definitions and standards of care that were not captured in the baseline surveys. Additionally, records from the entire year of



2013 were collected due to difficulty in collecting records from more than five years. The indicators and records evaluated in Chapter 7 of this report include only medical records that were recollected at the second follow-up evaluation for the 2011-2013 years and the 2016-2018 years.

Table 2.3: Medical record extraction

	В	aseline		First	Follow-	Up	Second Follow-Up				
Record Type	Ambulatory	Basic	Complete	Ambulatory	Basic	Complete	Ambulatory	Basic	Complete		
Antenatal care	342	234	12	383	116	7	508	80	0		
Diarrhea	136	0	0	196	0	0	286	15	0		
Delivery	0	88	148	7	91	245	0	213	55		
Postpartum care	0	66	141	7	83	244	0	201	50		
Maternal complications	0	151	295	0	80	280	0	193	82		
Neonatal complications	0	91	271	0	67	193	0	137	77		
Total	478	630	867	593	437	969	794	839	264		

#### 2.1.4 Referrals

In response to the question, "Do you usually receive referred patients from another health facility?", 15.2% of ambulatory, 83.3% of basic, and 100% of complete facilities answered "yes". All facility types reported sending patient referrals to other facilities. The basic and complete facilities who reported receiving referrals were also asked if they receive referrals specifically for routine deliveries and complicated deliveries. This information was not captured at the baseline or first follow-up. Of those who receive referrals at all, 100% basic facilities receive referrals for routine deliveries, while only 50% of basic facilities receive referrals for complicated deliveries. All complete facilities receive routine and complicated delivery referrals.

Table 2.4: Referrals, ambulatory facilities

		В	aseline	First Follow-Up				Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
Receives referred patients from other facilities	40	15	(5.7 - 29.8)	46	10.9	(3.6 - 23.6)	46	15.2	(6.3 - 28.9)	
Sends patient referrals to other facilities	40	85	(70.2 - 94.3)	46	97.8	(88.5 - 99.9)	46	100.0	(92.3 - 100)	

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/refuse to respond' about referrals



Table 2.5: Referrals, basic facilities

		Ba	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Receives referred patients from other facilities Receives referred routine deliveries	11	63.6 -	(30.8 - 89.1)	7 -	100	(59 - 100) -	12 10	83.3 100.0	(51.6 - 97.9) (69.2 - 100)
Receives referred complicated deliveries	-	-	-	-	-	-	10	70.0	(34.8 - 93.3)
Sends patient referrals to other facilities	11	90.9	(58.7 - 99.8)	7	100	(59 - 100)	12	100.0	(73.5 - 100)
Sends referred routine deliveries Sends referred complicated deliveries	-	-	-	-	-	-	12 12	16.7 100.0	(2.1 - 48.4) (73.5 - 100)

Table 2.6: Referrals, complete facilities

		Ва	aseline		First Fo	llow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Receives referred patients from other facilities	8	75	(34.9 - 96.8)	7	100	(59 - 100)	2	100	(15.8 - 100)
Receives referred routine deliveries	-	-	-	-	-	-	2	100	(15.8 - 100)
Receives referred complicated deliveries	-	-	-	-	-	-	2	100	(15.8 - 100)
Sends patient referrals to other facilities	7	100	(59 - 100)	7	100	(59 - 100)	2	100	(15.8 - 100)
Sends referred routine deliveries	-	-	-	-	-	-	2	0	(0 - 84.2)
Sends referred complicated deliveries	-	-	-	-	-	-	2	0	(0 - 84.2)

<sup>&</sup>lt;sup>a</sup> One complete facility at the baseline responded 'don't know/refuse to respond' about referring patients to other facilities

During the second follow-up evaluation, facilities also reported the types of documents that are requested when they receive referrals for delivery. This information was not captured at the baseline or first follow-up evaluation. Interviewers were instructed to group the directors' responses into five answer categories: transfer/referral form, patient medical record, laboratory results, proof of insurance, or other. Interviewers were able to select more than one type of documentation. Table 2.7 displays the documents that facilities request when they receive routine and complicated deliveries. Many request proof of insurance and referral forms. The most common 'other' response was prenatal cards.



Table 2.7: Requested referral documents, second follow-up evaluation

		В	Basic		Co	mplete
	N	%	CI	N	%	CI
Routine Deliveries						
Referral sheet	10	10.0	(0.3 - 44.5)	2	50	(1.3 - 98.7)
Patient medical record	10	0.0	(0 - 30.8)	2	0	(0 - 84.2)
Lab tests	10	0.0	(0 - 30.8)	2	0	(0 - 84.2)
Proof of insurance	10	40.0	(12.2 - 73.8)	2	100	(15.8 - 100)
Other documentation	10	80.0	(44.4 - 97.5)	2	100	(15.8 - 100)
<b>Complicated Deliveries</b>						
Referral sheet	7	0.0	(0 - 41)	2	50	(1.3 - 98.7)
Patient medical record	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Lab tests	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Proof of insurance	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)
Other documentation	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)

#### 2.2 Personnel

During the interview portion of the health facility surveys, representatives reported the types of staff employed at the facility. The tables below display the types of personnel employed from baseline to second follow-up. 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 within a given facility.

The majority of ambulatory facilities employ a nurse or general physician as shown in Table 2.8. No ambulatory facilities employ a pediatrician or midwife.



Table 2.8: Personnel employed, ambulatory facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
General physician	41	80.5	(65.1 - 91.2)	46	84.8	(71.1 - 93.7)	46	78.3	(63.6 - 89.1)	
Pediatrician	40	0.0	(0 - 8.8)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	
Nutritionist	40	10.0	(2.8 - 23.7)	46	6.5	(1.4 - 17.9)	46	13.0	(4.9 - 26.3)	
Pharmacist	40	5.0	(0.6 - 16.9)	46	6.5	(1.4 - 17.9)	46	13.0	(4.9 - 26.3)	
Nurse	40	72.5	(56.1 - 85.4)	46	69.6	(54.2 - 82.3)	46	80.4	(66.1 - 90.6)	
Auxiliary nurse	40	40.0	(24.9 - 56.7)	46	15.2	(6.3 - 28.9)	46	52.2	(36.9 - 67.1)	
Midwife	40	55.0	(38.5 - 70.7)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	
Social worker	40	10.0	(2.8 - 23.7)	46	10.9	(3.6 - 23.6)	46	21.7	(10.9 - 36.4)	
Lab technician/chemist	40	5.0	(0.6 - 16.9)	46	2.2	(0.1 - 11.5)	46	13.0	(4.9 - 26.3)	
Health promoter	40	62.5	(45.8 - 77.3)	46	23.9	(12.6 - 38.8)	45	11.1	(3.7 - 24.1)	
Polivalent/multipurpose	-	-	-	46	19.6	(9.4 - 33.9)	46	6.5	(1.4 - 17.9)	
Employee for equipment maintenance	40	17.5	(7.3 - 32.8)	46	2.2	(0.1 - 11.5)	46	2.2	(0.1 - 11.5)	
Employee for building maintenance	40	12.5	(4.2 - 26.8)	46	2.2	(0.1 - 11.5)	46	10.9	(3.6 - 23.6)	

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/refuse to respond' to all personnel except for general physician

From the baseline to second follow-up all basic facilities have employed at least one general physician. Employment of pediatricians, auxiliary nurses, gynecologists, surgeons, and anesthesiologists has improved slightly over time at basic facilities.

<sup>&</sup>lt;sup>b</sup> One ambulatory facility at the second follow-up responded 'don't know/refuse to respond' to health promoter



Table 2.9: Personnel employed, basic facilities

		Bas	eline		First F	ollow-Up		Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI		
General physician	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)		
Pediatrician	11	9.1	(0.2 - 41.3)	7	0.0	(0 - 41)	12	33.3	(9.9 - 65.1)		
Nutritionist	11	81.8	(48.2 - 97.7)	7	85.7	(42.1 - 99.6)	12	58.3	(27.7 - 84.8)		
Pharmacist	11	45.5	(16.7 - 76.6)	7	14.3	(0.4 - 57.9)	12	41.7	(15.2 - 72.3)		
Nurse	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)		
Auxiliary nurse	11	81.8	(48.2 - 97.7)	7	57.1	(18.4 - 90.1)	11	100.0	(71.5 - 100)		
Midwife	11	27.3	(6 - 61)	7	0.0	(0 - 41)	12	8.3	(0.2 - 38.5)		
Social worker	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)		
Lab technician/chemist	11	81.8	(48.2 - 97.7)	7	57.1	(18.4 - 90.1)	12	91.7	(61.5 - 99.8)		
Health promoter	11	45.5	(16.7 - 76.6)	7	28.6	(3.7 - 71)	12	50.0	(21.1 - 78.9)		
Polivalent/multipurpose	-	-	-	7	14.3	(0.4 - 57.9)	12	0.0	(0 - 26.5)		
Internist	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	8.3	(0.2 - 38.5)		
Gynecologist	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	16.7	(2.1 - 48.4)		
Surgeon	11	9.1	(0.2 - 41.3)	7	14.3	(0.4 - 57.9)	12	33.3	(9.9 - 65.1)		
Anesthesiologist	11	9.1	(0.2 - 41.3)	7	28.6	(3.7 - 71)	12	50.0	(21.1 - 78.9)		
Emergency medical technician	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)		
Radiology technician	11	9.1	(0.2 - 41.3)	7	28.6	(3.7 - 71)	12	41.7	(15.2 - 72.3)		
Ambulance driver	11	45.5	(16.7 - 76.6)	7	14.3	(0.4 - 57.9)	12	58.3	(27.7 - 84.8)		
Employee for equipment maintenance	11	36.4	(10.9 - 69.2)	7	0.0	(0 - 41)	12	33.3	(9.9 - 65.1)		
Employee for building maintenance	11	27.3	(6 - 61)	7	0.0	(0 - 41)	12	33.3	(9.9 - 65.1)		

<sup>&</sup>lt;sup>a</sup> One basic facility at the second follow-up responded 'don't know/refuse to respond' to auxiliary nurse

At the second follow-up evaluation, all complete facilities reported employing at least one pediatrician, nutritionist, social worker, gynecologist, and anesthesiologist, to name a few. No complete level facilities employ a midwife, health promoter, internist, or emergency medical technician.



Table 2.10: Personnel employed, complete facilities

		Ва	seline		First F	ollow-Up	5	Second	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
General physician	8	87.5	(47.3 - 99.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Pediatrician	8	75.0	(34.9 - 96.8)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Nutritionist	7	85.7	(42.1 - 99.6)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Pharmacist	8	37.5	(8.5 - 75.5)	7	14.3	(0.4 - 57.9)	2	50	(1.3 - 98.7)
Nurse	8	87.5	(47.3 - 99.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Auxiliary nurse	8	87.5	(47.3 - 99.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Midwife	8	0.0	(0 - 36.9)	7	28.6	(3.7 - 71)	2	0	(0 - 84.2)
Social worker	8	87.5	(47.3 - 99.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Lab technician/chemist	8	87.5	(47.3 - 99.7)	7	100.0	(59 - 100)	2	50	(1.3 - 98.7)
Health promoter	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)	2	0	(0 - 84.2)
Polivalent/multipurpose	-	-	-	7	42.9	(9.9 - 81.6)	2	0	(0 - 84.2)
Internist	7	14.3	(0.4 - 57.9)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)
Gynecologist	7	71.4	(29 - 96.3)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Surgeon	7	71.4	(29 - 96.3)	7	57.1	(18.4 - 90.1)	2	50	(1.3 - 98.7)
Anesthesiologist	7	71.4	(29 - 96.3)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Emergency medical technician	6	16.7	(0.4 - 64.1)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Radiology technician	6	66.7	(22.3 - 95.7)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Ambulance driver	6	66.7	(22.3 - 95.7)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)
Employee for equipment maintenance	8	75.0	(34.9 - 96.8)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Employee for building maintenance	8	62.5	(24.5 - 91.5)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)

<sup>&</sup>lt;sup>a</sup> Incomplete personnel data for internist, gynecologist, surgeon, anesthesiologist, emergency medical technician, radiology technician, and ambulance driver at the baseline. One facility at the baseline responded 'don't know/decline to respond when asked about nutritonists and health promoters and are excluded from those personnel.

# 2.3 Staff availability 24 hours a day, 7 days a week monitoring indicator

According to the 24/7 staff availability monitoring indicator (7190), complete facilities should have at least one gynecologist, internist, and anesthesiologist on call 24/7. No complete facilities have access to these three types of staff 24 hours a day, 7 days a week during the second follow-up evaluation.

Table 2.11: 24/7 staff availability, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
At least one gynecologist available 24/7	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)	
At least one internist available 24/7	7	14.3	(0.4 - 57.9)	7	28.6	(3.7 - 71)	2	0	(0 - 84.2)	
At least one anesthesiologist available 24/7	7	42.9	(9.9 - 81.6)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)	
All types of personnel available 24/7	7	0.0	(0 - 41)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)	

<sup>&</sup>lt;sup>a</sup> Data missing from one complete facility at the baseline and is excluded from the indicator



#### 2.4 Basic infrastructure

#### 2.4.1 Electricity and water

The following tables display the sources of electricity and water reported by health facility staff during the interview. Staff were able to 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.

Almost all ambulatory facilities have functional electricity powered by the public electricity network. For water, 87% of ambulatory facilities report using a public water network, followed by a tank or pipe truck. Many facilities reported 'other' for the source of water. The majority of 'other' responses at the baseline and first follow-up include general tanks or tanks owned by the community, followed by springs or rivers.

Table 2.12: Access to electricity and water, ambulatory facilities

		Ва	seline		First F	ollow-Up	9	Second	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
Functional electricity supply	40	92.5	(79.6 - 98.4)	46	93.5	(82.1 - 98.6)	46	97.8	(88.5 - 99.9)
Public electricity network	37	89.2	(74.6 - 97)	43	97.7	(87.7 - 99.9)	45	97.8	(88.2 - 99.9)
Private electricity network	37	2.7	(0.1 - 14.2)	43	0.0	(0 - 8.2)	45	0.0	(0 - 7.9)
Emergency electric plant	37	8.1	(1.7 - 21.9)	43	0.0	(0 - 8.2)	45	2.2	(0.1 - 11.8)
Solar generator	37	2.7	(0.1 - 14.2)	43	0.0	(0 - 8.2)	45	0.0	(0 - 7.9)
Other source	37	0.0	(0 - 9.5)	43	2.3	(0.1 - 12.3)	45	2.2	(0.1 - 11.8)
Water supply									
Public water network	39	51.3	(34.8 - 67.6)	45	68.9	(53.4 - 81.8)	46	87.0	(73.7 - 95.1)
Public well	39	2.6	(0.1 - 13.5)	45	13.3	(5.1 - 26.8)	46	6.5	(1.4 - 17.9)
Protected well at facility	39	2.6	(0.1 - 13.5)	45	2.2	(0.1 - 11.8)	46	6.5	(1.4 - 17.9)
Unprotected well	39	5.1	(0.6 - 17.3)	45	2.2	(0.1 - 11.8)	46	0.0	(0 - 7.7)
Manual pump	39	2.6	(0.1 - 13.5)	45	4.4	(0.5 - 15.1)	46	0.0	(0 - 7.7)
Bottled water	39	0.0	(0 - 9)	45	11.1	(3.7 - 24.1)	46	0.0	(0 - 7.7)
Tank or pipe truck	39	7.7	(1.6 - 20.9)	45	2.2	(0.1 - 11.8)	46	15.2	(6.3 - 28.9)
Rain water	39	12.8	(4.3 - 27.4)	45	0.0	(0 - 7.9)	46	2.2	(0.1 - 11.5)
Other source	39	35.9	(21.2 - 52.8)	45	26.7	(14.6 - 41.9)	46	10.9	(3.6 - 23.6)

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/decline to respond' when asked if the facility has a functional electricity. Two ambulatory facilities at the baseline responded 'don't know/decline to respond' when asked about the sources of water.

All basic and complete facilities have functional electricity and a water supply at the second follow-up. All facilities use the public electricity network for at least one source of electricity, and the majority use a public water network or tank or pipe truck for water.

<sup>&</sup>lt;sup>b</sup> One ambulatory facility at the first follow-up responded 'don't know/decline to respond' when asked the source of water.



Table 2.13: Access to electricity and water, basic facilities

		Bas	eline		First Fo	llow-Up		Second I	-ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Functional electricity supply	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Public electricity network	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Private electricity network	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)
Emergency electric plant	11	9.1	(0.2 - 41.3)	7	0.0	(0 - 41)	12	8.3	(0.2 - 38.5)
Solar generator	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)
Other source	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	8.3	(0.2 - 38.5)
Water supply									
Public water network	11	72.7	(39 - 94)	7	42.9	(9.9 - 81.6)	12	75.0	(42.8 - 94.5)
Public well	11	0.0	(0 - 28.5)	7	14.3	(0.4 - 57.9)	12	8.3	(0.2 - 38.5)
Protected well at facility	11	27.3	(6 - 61)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)
Unprotected well	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)
Manual pump	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)
Bottled water	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)
Tank or pipe truck	11	18.2	(2.3 - 51.8)	7	71.4	(29 - 96.3)	12	58.3	(27.7 - 84.8)
Rain water	11	9.1	(0.2 - 41.3)	7	14.3	(0.4 - 57.9)	12	16.7	(2.1 - 48.4)
Other source	11	36.4	(10.9 - 69.2)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)

Table 2.14: Access to electricity and water, complete facilities

		Bas	eline		First Fo	llow-Up		Second	Follow-Up
	N	%	CI	N	%	CI	N		CI
Functional electricity supply	8	100.0	(63.1 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Public electricity network	7	100.0	(59 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Private electricity network	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Emergency electric plant	7	14.3	(0.4 - 57.9)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)
Solar generator	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Other source	7	0.0	(0 - 41)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)
Water supply									
Public water network	7	71.4	(29 - 96.3)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Public well	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Protected well at facility	7	0.0	(0 - 41)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)
Unprotected well	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Manual pump	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Bottled water	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Tank or pipe truck	7	57.1	(18.4 - 90.1)	7	42.9	(9.9 - 81.6)	2	50	(1.3 - 98.7)
Rain water	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)
Other source	7	14.3	(0.4 - 57.9)	7	28.6	(3.7 - 71)	2	0	(0 - 84.2)

<sup>&</sup>lt;sup>a</sup> One complete facility at the baseline responded 'don't know/decline to respond' when asked the source of water.



#### 2.5 Internet access

During the interview, facilities were asked if they had an internet connection at the unit. The percent of facilities with an internet connection has increased since the baseline for ambulatory facilities, but has decreased for basic and complete.

Table 2.15: Internet access, ambulatory facilities

		Bas	seline	F	irst F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Functional internet connection	40	7.5	(1.6 - 20.4)	46	13	(4.9 - 26.3)	46	54.3	(39 - 69.1)	

<sup>&</sup>lt;sup>a</sup> One facility reported 'don't know/decline to respond' at the baseline when asked about internet

Table 2.16: Internet access, basic facilities

		Ba	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Functional internet connection	11	36.4	(10.9 - 69.2)	7	57.1	(18.4 - 90.1)	12	16.7	(2.1 - 48.4)	

Table 2.17: Internet access, complete facilities

-		Ва	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Functional internet connection	8	62.5	(24.5 - 91.5)	7	71.4	(29 - 96.3)	2	50	(1.3 - 98.7)

# 2.6 Access to safe blood monitoring indicator

In the questionnaire component of the survey, health facility managers at complete facilities are asked to indicate whether they has access to safe blood, as part of the monitoring indicator 7210. All complete facilities, from baseline to second follow-up, reported having access to safe blood.

Table 2.18: Access to safe blood, complete facilities

		Ва	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Facility has access to safe blood	8	100	(63.1 - 100)	7	100	(59 - 100)	2	100	(15.8 - 100)



# 3 Chapter 3: Child health

# 3.1 Child health care services provision

This chapter summarizes key indicators and information 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, and checked for equipment, stock of pharmacy inputs, stock of vaccines, and related educational materials.

Tables 3.1-3.3 display the percentage of facilities that offer 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 offer child health care services. All ambulatory and complete facilities, and 91.7% of basic facilities report also offering vaccinations for children under the age of 5. Tables 3.1-3.3 also display information regarding the type of room used for child care, which is collected during the observation component. Slight discrepancies may exist between responses reported by the person in charge of the facility during the questionnaire portion of the survey and the subsequent direct observation of the facility by the interviewers.

Table 3.1: Child health care services provision, ambulatory facilities

		Ba	seline		First Fc	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Provides childcare services	40	97.5	(86.8 - 99.9)	46	100.0	(92.3 - 100)	46	100.0	(92.3 - 100)	
Vaccinates children under five	40	92.5	(79.6 - 98.4)	46	100.0	(92.3 - 100)	46	100.0	(92.3 - 100)	
Child health care area										
Visual and auditory privacy	37	64.9	(47.5 - 79.8)	46	87.0	(73.7 - 95.1)	46	91.3	(79.2 - 97.6)	
Non private area	37	18.9	(8 - 35.2)	46	10.9	(3.6 - 23.6)	46	8.7	(2.4 - 20.8)	
Visual privacy only	37	2.7	(0.1 - 14.2)	46	2.2	(0.1 - 11.5)	46	0.0	(0 - 7.7)	
Other	37	13.5	(4.5 - 28.8)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	
Do not provide service	37	0.0	(0 - 9.5)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/decline to respond' when asked if they provide childcare services or vaccinate children under five

<sup>&</sup>lt;sup>b</sup> Observed childcare area data missing from four facilities at the baseline



Table 3.2: Child health care services provision, basic facilities

		Bas	eline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Provides childcare services	11	90.9	(58.7 - 99.8)	7	100	(59 - 100)	12	100.0	(73.5 - 100)	
Vaccinates children under five	11	100.0	(71.5 - 100)	7	100	(59 - 100)	12	91.7	(61.5 - 99.8)	
Child health care area										
Visual and auditory privacy	11	100.0	(71.5 - 100)	7	100	(59 - 100)	12	100.0	(73.5 - 100)	
Non private area	11	0.0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)	
Visual privacy only	11	0.0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)	
Other	11	0.0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)	
Do not provide service	11	0.0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)	

Table 3.3: Child health care services provision, complete facilities

		Bas	eline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Provides childcare services	7	71.4	(29 - 96.3)	7	100.0	(59 - 100)	2	50	(1.3 - 98.7)	
Vaccinates children under five	7	42.9	(9.9 - 81.6)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)	
Child health care area										
Visual and auditory privacy	7	100.0	(59 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)	
Non private area	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Visual privacy only	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Other	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Do not provide service	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline responded 'don't know/decline to respond' when asked if they provide childcare services or vaccinate children under five

# 3.2 Child health care equipment

Specific equipment and drugs are necessary for child health care, as defined by the monitoring indicator for child health (7010). The equipment included in this indicator can be found in Tables 3.4-3.6 below. Facilities were only included if the interviewer entered into the child care 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 all equipment and test for functionality (if possible). Unless noted otherwise, the facility only needs to have at least one functioning piece of equipment on the day of the survey. The drugs and vaccines necessary for this monitoring indicator (7010) can be found in sections 3.3 and 3.4.

Ambulatory facilities should have all of the following functional equipment on the day of the observation survey: pediatric scale / salter scale, standing scale / salter scale, height rod, stethoscope, thermometer,

<sup>&</sup>lt;sup>b</sup> Observed childcare area data missing from one facility at baseline.



and vaccination cards / health cards / growth & development cards. The availability of child health care equipment has increased greatly since the baseline, specifically for scales. At the second follow-up, all facilities had a functional pediatric scale, standing scale, and thermometer on the day of the survey.

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

		Ba	seline		First Fo	llow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Pediatric scale/salter scale	37	62.2	(44.8 - 77.5)	42	85.7	(71.5 - 94.6)	46	100.0	(92.3 - 100)	
Standing scale/salter scale	37	78.4	(61.8 - 90.2)	45	100.0	(92.1 - 100)	46	100.0	(92.3 - 100)	
Height rod	37	86.5	(71.2 - 95.5)	45	100.0	(92.1 - 100)	46	97.8	(88.5 - 99.9)	
Stethoscope	37	86.5	(71.2 - 95.5)	45	100.0	(92.1 - 100)	46	95.7	(85.2 - 99.5)	
Thermometer	37	97.3	(85.8 - 99.9)	45	95.6	(84.9 - 99.5)	46	100.0	(92.3 - 100)	
Vaccination, health, or growth &	37	97.3	(85.8 - 99.9)	45	97.8	(88.2 - 99.9)	46	97.8	(88.5 - 99.9)	
development cards										
All equipment observed and functional	37	51.4	(34.4 - 68.1)	45	82.2	(67.9 - 92)	46	93.5	(82.1 - 98.6)	

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale

Basic and complete facilities should have all of the following equipment in the facility on the day of the observation survey: pediatric scale / salter scale, standing scale / salter scale, height rod, pediatric blood pressure apparatus, and pediatric stethoscope. All complete facilities had the necessary equipment on the day of the survey. Almost all basic facilities had the necessary equipment on the day of the survey, however only 75% had a pediatric blood pressure apparatus and only 75% had a pediatric stethoscope.

Table 3.5: Child health care equipment observed and functional, basic facilities

	Baseline				First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Pediatric scale/salter scale	11	81.8	(48.2 - 97.7)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Standing scale/salter scale	11	90.9	(58.7 - 99.8)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Height rod	11	90.9	(58.7 - 99.8)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Pediatric blood pressure apparatus	11	18.2	(2.3 - 51.8)	7	14.3	(0.4 - 57.9)	12	75.0	(42.8 - 94.5)
Pediatric stethoscope	11	18.2	(2.3 - 51.8)	7	28.6	(3.7 - 71)	12	75.0	(42.8 - 94.5)
All equipment observed and functional	11	18.2	(2.3 - 51.8)	7	0.0	(0 - 41)	12	66.7	(34.9 - 90.1)

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale

<sup>&</sup>lt;sup>b</sup> Three facilities at the first follow-up did not have a functional pediatric scale and data on salter scales was not collected. These three facilities were excluded from the pediatric scale requirement.



Table 3.6: Child health care equipment observed and functional, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Pediatric scale/salter scale	7	100.0	(59 - 100)	6	66.7	(22.3 - 95.7)	2	100	(15.8 - 100)
Standing scale/salter scale	7	85.7	(42.1 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Height rod	7	85.7	(42.1 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Pediatric blood pressure apparatus	7	14.3	(0.4 - 57.9)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Pediatric stethoscope	7	57.1	(18.4 - 90.1)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
All equipment observed and functional	7	14.3	(0.4 - 57.9)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale

# 3.3 Child health care pharmacy inputs

As mentioned in section 3.2, specific equipment and drugs are necessary for child health care, as defined by the monitoring indicator (7010). The drugs included in this indicator can be found in Tables 3.7-3.9 below. Interviewers were instructed to observe the drugs and check any kardex or written documentation for stock outs in the last three months. If the facility did not have documentation at the second follow-up regarding stock in the previous three months, the facility was considered to be stocked out of the drug and did not pass that portion of the indicator.

Ambulatory facilities should have all of the following drugs in the last three months: oral rehydration salts, ferrous sulfate/micronutrients for children, albendazole/mebendazole, and erythromycin/ampicillin/penicillin benzathine. Only ambulatory facilities with a doctor are required to have the antibiotics. As displayed below, stock of the drugs on the day of the survey has increased, but at the second follow-up only 67.4% of facilities had continuous stock of the drugs in the last three months.

Table 3.7: Child health care pharmacy inputs, ambulatory facilities

		Bas	seline		First Fo	llow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Oral rehydration salts	37	81.1	(64.8 - 92)	45	100.0	(92.1 - 100)	46	97.8	(88.5 - 99.9)	
Ferrous sulfate / micronutrients for children	37	54.1	(36.9 - 70.5)	45	86.7	(73.2 - 94.9)	46	84.8	(71.1 - 93.7)	
Albendazole / mebendazole	37	81.1	(64.8 - 92)	45	100.0	(92.1 - 100)	46	97.8	(88.5 - 99.9)	
Erythromycin / ampicillin / penicillin benzathine	32	81.2	(63.6 - 92.8)	36	100.0	(90.3 - 100)	36	100.0	(90.3 - 100)	
All drugs observed on day of observation	37	40.5	(24.8 - 57.9)	45	86.7	(73.2 - 94.9)	46	80.4	(66.1 - 90.6)	
All drugs continuously available in past three months	37	37.8	(22.5 - 55.2)	45	51.1	(35.8 - 66.3)	46	67.4	(52 - 80.5)	

<sup>&</sup>lt;sup>a</sup> Erythromycin/ampicillin/penicillin benzathine only measured at ambulatory facilities with a doctor

<sup>&</sup>lt;sup>b</sup> One facility at the first follow-up did not have a functional pediatric scale and data on salter scales was not collected. This facility was excluded from the pediatric scale requirement.

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Basic and complete facilities should have all of the following drugs in the last three months: oral rehydration salts, ferrous sulfate/micronutrients for children, albendazole/mebendazole, penicillin crystalline/ampicillin/amoxicillin, and ringer's lactate/hartmann's solution/saline solution. Only 58.3% of basic and 50% of complete facilities had stock of all drugs in the last three months. However 83.3% of basic and 100% of complete facilities had stock of all drugs on the day of the survey.

Table 3.8: Child health care pharmacy inputs, basic facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Oral rehydration salts	11	63.6	(30.8 - 89.1)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Ferrous sulfate / micronutrients for children	11	72.7	(39 - 94)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
Albendazole / mebendazole	11	72.7	(39 - 94)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
Penicillin crystalline / ampicillin / amoxicillin	11	63.6	(30.8 - 89.1)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Ringer's lactate / Hartmann's / saline solution	11	36.4	(10.9 - 69.2)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
All drugs observed on day of observation	11	36.4	(10.9 - 69.2)	7	100.0	(59 - 100)	12	83.3	(51.6 - 97.9)	
All drugs continuously available in past three months	11	36.4	(10.9 - 69.2)	7	57.1	(18.4 - 90.1)	12	58.3	(27.7 - 84.8)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table 3.9: Child health care pharmacy inputs, complete facilities

		Bas	seline		First Fol	low-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Oral rehydration salts	7	28.6	(3.7 - 71)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Ferrous sulfate / micronutrients for children	7	28.6	(3.7 - 71)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Albendazole / mebendazole	7	28.6	(3.7 - 71)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Penicillin crystalline / ampicillin / amoxicillin	7	42.9	(9.9 - 81.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Ringer's lactate / Hartmann's / saline solution	7	14.3	(0.4 - 57.9)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
All drugs observed on day of observation	7	14.3	(0.4 - 57.9)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
All drugs continuously available in past three months	7	14.3	(0.4 - 57.9)	7	71.4	(29 - 96.3)	2	50	(1.3 - 98.7)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

#### 3.4 Child health care vaccine stock

As mentioned in section 3.2, specific vaccines are necessary for child health care, as defined by the monitoring indicator (7010). The vaccines included in this indicator can be found in Tables 3.10-3.12



below. Interviewers were instructed to observe and check any kardex or written documentation for stock outs in the last three months. If the facility did not have documentation at the first or second follow-up regarding stock in the previous three months, the facility was considered to be stocked out of the vaccine and did not pass that portion of the indicator. This vaccine component of the child health care indicator only applies to facilities that report storing vaccines.

All facilities that store vaccines, except ambulatory facilities without a doctor, should have the following vaccines with no stock out in the last three months: pentavalent (DPT+Hepb\_Hib), polio, measles mumps & rubella (MMR), influenza, rotavirus, pneumococcal conjugate, and BCG. The majority of health facilities were stocked out of at least one vaccine in the last three months. When looking at only stock on the day of the survey, only 52.4% of ambulatory facilities with a doctor, 45.5% of basic, and 100% of complete facilities met this requirement.

Table 3.10: Child health care vaccines, ambulatory facilities with a doctor

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	11	81.8	(48.2 - 97.7)	16	62.5	(35.4 - 84.8)	21	90.5	(69.6 - 98.8)	
Polio	11	45.5	(16.7 - 76.6)	16	50.0	(24.7 - 75.3)	21	76.2	(52.8 - 91.8)	
Measles, Mumps, Rubella	11	90.9	(58.7 - 99.8)	16	81.2	(54.4 - 96)	21	90.5	(69.6 - 98.8)	
Influenza	11	27.3	(6 - 61)	16	43.8	(19.8 - 70.1)	21	66.7	(43 - 85.4)	
Rotavirus	11	81.8	(48.2 - 97.7)	16	75.0	(47.6 - 92.7)	21	81.0	(58.1 - 94.6)	
Pneumococcal conjugate	11	27.3	(6 - 61)	16	56.2	(29.9 - 80.2)	21	71.4	(47.8 - 88.7)	
BCG	11	81.8	(48.2 - 97.7)	16	56.2	(29.9 - 80.2)	21	81.0	(58.1 - 94.6)	
All vaccines observed on day of survey	11	9.1	(0.2 - 41.3)	16	37.5	(15.2 - 64.6)	21	52.4	(29.8 - 74.3)	
All vaccines continuously available in past three months	11	0.0	(0 - 28.5)	16	18.8	(4 - 45.6)	21	14.3	(3 - 36.3)	

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

Table 3.11: Child health care vaccines, basic facilities

		Bas	eline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	8	100.0	(63.1 - 100)	6	33.3	(4.3 - 77.7)	11	81.8	(48.2 - 97.7)	
Polio	8	37.5	(8.5 - 75.5)	6	50.0	(11.8 - 88.2)	11	72.7	(39 - 94)	
Measles, Mumps, Rubella	8	100.0	(63.1 - 100)	6	100.0	(54.1 - 100)	11	90.9	(58.7 - 99.8)	
Influenza	8	37.5	(8.5 - 75.5)	6	0.0	(0 - 45.9)	11	45.5	(16.7 - 76.6)	
Rotavirus	8	87.5	(47.3 - 99.7)	6	100.0	(54.1 - 100)	11	81.8	(48.2 - 97.7)	
Pneumococcal conjugate	8	50.0	(15.7 - 84.3)	6	0.0	(0 - 45.9)	11	72.7	(39 - 94)	
BCG	8	100.0	(63.1 - 100)	6	33.3	(4.3 - 77.7)	11	90.9	(58.7 - 99.8)	
All vaccines observed on day of survey	8	12.5	(0.3 - 52.7)	6	0.0	(0 - 45.9)	11	45.5	(16.7 - 76.6)	
All vaccines continuously available in past three months	8	0.0	(0 - 36.9)	6	0.0	(0 - 45.9)	11	9.1	(0.2 - 41.3)	

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



Table 3.12: Child health care vaccines, complete facilities

		В	aseline		First	Follow-Up		Second	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
Pentavalent / (DPT + Hep B + HiB)	5	60	(14.7 - 94.7)	5	60	(14.7 - 94.7)	2	100	(15.8 - 100)
Polio	5	60	(14.7 - 94.7)	5	20	(0.5 - 71.6)	2	100	(15.8 - 100)
Measles, Mumps, Rubella	5	80	(28.4 - 99.5)	5	80	(28.4 - 99.5)	2	100	(15.8 - 100)
Influenza	5	0	(0 - 52.2)	5	40	(5.3 - 85.3)	2	100	(15.8 - 100)
Rotavirus	5	80	(28.4 - 99.5)	5	60	(14.7 - 94.7)	2	100	(15.8 - 100)
Pneumococcal conjugate	5	60	(14.7 - 94.7)	5	40	(5.3 - 85.3)	2	100	(15.8 - 100)
BCG	5	40	(5.3 - 85.3)	5	60	(14.7 - 94.7)	2	100	(15.8 - 100)
All vaccines observed on day of survey	5	0	(0 - 52.2)	5	0	(0 - 52.2)	2	100	(15.8 - 100)
All vaccines continuously available in past three months	5	0	(0 - 52.2)	5	0	(0 - 52.2)	2	50	(1.3 - 98.7)

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

# 3.5 Composite child health care monitoring indicator

The child health care monitoring indicator (7010) requires all equipment, drugs, and vaccines (if applicable) listed in sections 3.2, 3.3, and 3.4 of this report. The tables below display the overall indicator values by facility type.

Only 39.1% of ambulatory facilities passed this indicator, and no basic or complete facilities passed. However, there has been a lot of improvement in equipment and pharmacy stock from the baseline to the second follow-up. At the baseline, only 51.4% of ambulatory and 18.2% of basic facilities had the necessary equipment, whereas 93.5% of ambulatory and 66.7% of basic facilities had the equipment at the second follow-up.

Table 3.13: Child health care composite indicator, ambulatory facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All equipment observed and functional	37	51.4	(34.4 - 68.1)	45	82.2	(67.9 - 92)	46	93.5	(82.1 - 98.6)
All pharmacy inputs continuously available in past three months	37	37.8	(22.5 - 55.2)	45	51.1	(35.8 - 66.3)	46	67.4	(52 - 80.5)
All vaccines continuously available in past three months	11	0.0	(0 - 28.5)	16	18.8	(4 - 45.6)	21	14.3	(3 - 36.3)
Child health care provision according to standard	37	8.1	(1.7 - 21.9)	45	26.7	(14.6 - 41.9)	46	39.1	(25.1 - 54.6)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



Table 3.14: Child health care composite indicator, basic facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All equipment observed and functional	11	18.2	(2.3 - 51.8)	7	0.0	(0 - 41)	12	66.7	(34.9 - 90.1)
All pharmacy inputs continuously available in past three months	11	36.4	(10.9 - 69.2)	7	57.1	(18.4 - 90.1)	12	58.3	(27.7 - 84.8)
All vaccines continuously available in past three months	8	0.0	(0 - 36.9)	6	0.0	(0 - 45.9)	11	9.1	(0.2 - 41.3)
Child health care provision according to standard	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up

Table 3.15: Child health care composite indicator, complete facilities

	Baseline				First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All equipment observed and functional	7	14.3	(0.4 - 57.9)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)
All pharmacy inputs continuously available in past three months	7	14.3	(0.4 - 57.9)	7	71.4	(29 - 96.3)	2	50	(1.3 - 98.7)
All vaccines continuously available in past three months	5	0.0	(0 - 52.2)	5	0.0	(0 - 52.2)	2	50	(1.3 - 98.7)
Child health care provision according to standard	7	0.0	(0 - 41)	7	0.0	(0 - 41)	2	0	(0 - 84.2)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up

# 3.6 Diarrhea management composite monitoring indicator

The appropriate treatment for child diarrhea includes checking for symptoms and vitals (general condition, eyes, thirst, skin fold, capillary refill, pulse/heart rate), as well as administration of oral rehydration salts. To measure this, doctors and nurses systematically selected medical records for children (aged 0-59 months) with diarrhea from ambulatory facilities. The records were reviewed for the appropriate treatment according to the diarrhea monitoring indicaotr (4130).

Table 3.16 displays the percent of medical records from ambulatory facilities that met each component of the indicator. While only 23.6% of children were treated appropriately, this is an improvement from only 11% of children at the baseline and 5.2% of children at the first follow-up. At the second follow-up, the medical records were lacking checkups such as capillary refill and pulse.



Table 3.16: Diarrhea treatment, ambulatory facilities

		Base	eline		First Fo	llow-Up	:	Second Fo	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
All symptoms recorded:	136	16.2	(10.4 - 23.5)	192	24.5	(18.6 - 31.2)	240	72.1	(65.9 - 77.7)
General condition	136	38.2	(30 - 47)	192	90.6	(85.6 - 94.3)	240	100.0	(98.5 - 100)
Eyes	136	33.1	(25.3 - 41.7)	192	71.4	(64.4 - 77.6)	240	92.5	(88.4 - 95.5)
Thirst	136	19.9	(13.5 - 27.6)	192	42.7	(35.6 - 50)	240	77.9	(72.1 - 83)
Skin fold	136	27.9	(20.6 - 36.3)	192	40.6	(33.6 - 47.9)	240	91.7	(87.4 - 94.8)
All checkups performed:	136	22.1	(15.4 - 30)	192	30.7	(24.3 - 37.8)	240	31.7	(25.8 - 38)
Capillary refill	136	24.3	(17.3 - 32.4)	192	30.7	(24.3 - 37.8)	240	65.8	(59.5 - 71.8)
Pulse	136	36.8	(28.7 - 45.5)	192	95.3	(91.3 - 97.8)	240	52.1	(45.6 - 58.6)
Administered oral rehydration salts	136	50.7	(42 - 59.4)	192	93.8	(89.3 - 96.7)	240	97.5	(94.6 - 99.1)
Child treated appropriately for diarrhea	136	11.0	(6.3 - 17.5)	192	5.2	(2.5 - 9.4)	240	22.9	(17.8 - 28.8)



# 4 Chapter 4: Immunization services

# 4.1 Immunization services provision

During the questionnaire and observation component of the survey, facilities reported on vaccinations for children under five, as well as their immunization areas. With the exception of one basic facility, all reported providing vaccinations for children under 5 during the questionnaire. Interviewers then observed and recorded the setting of the room used for immunizations during the observation component of the survey. All facilities have a room with at least some amount of privacy that can be used for this purpose.

Table 4.1: Immunization services provision, ambulatory facilities

		Ba	seline		First Fo	llow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Vaccinates children under five	40	92.5	(79.6 - 98.4)	46	100.0	(92.3 - 100)	46	100.0	(92.3 - 100)	
Immunizationarea										
Visual and auditory privacy	36	66.7	(49 - 81.4)	46	67.4	(52 - 80.5)	46	80.4	(66.1 - 90.6)	
Non private area	36	30.6	(16.3 - 48.1)	46	30.4	(17.7 - 45.8)	46	17.4	(7.8 - 31.4)	
Visual privacy only	36	0.0	(0 - 9.7)	46	2.2	(0.1 - 11.5)	46	2.2	(0.1 - 11.5)	
Other	36	2.8	(0.1 - 14.5)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	
Do not provide service	36	0.0	(0 - 9.7)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	

<sup>&</sup>lt;sup>a</sup> Under-five vaccine provision data missing from one facility at the baseline

Table 4.2: Immunization services provision, basic facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up				
	N	%	CI	N	%	CI	N	%	CI		
Vaccinates children under five	11	100	(71.5 - 100)	7	100	(59 - 100)	12	91.7	(61.5 - 99.8)		
Immunizationarea											
Visual and auditory privacy	11	100	(71.5 - 100)	7	100	(59 - 100)	12	100.0	(73.5 - 100)		
Non private area	11	0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)		
Visual privacy only	11	0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)		
Other	11	0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)		
Do not provide service	11	0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)		

<sup>&</sup>lt;sup>b</sup> Immunization area data missing from five facilities at the baseline



Table 4.3: Immunization services provision, complete facilities

		Bas	eline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Vaccinates children under five	7	42.9	(9.9 - 81.6)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)	
Immunizationarea										
Visual and auditory privacy	6	100.0	(54.1 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)	
Non private area	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Visual privacy only	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Other	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Do not provide service	6	0.0	(0 - 45.9)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)	

<sup>&</sup>lt;sup>a</sup> Under-five vaccine provision data missing from one facility at the baseline

# 4.2 Vaccine storage

In the questionnaire component of the survey, interviewers asked about vaccine storage. Only facilities that report providing vaccination services for children were asked about storage. All basic and complete facilities reported storing vaccines in-facility at the second follow-up evaluation. Only half (47.8%) of ambulatory facilities reported storing vaccines, while 32.6% collect them from another facility and 17.4% have them delivered when immunization services are provided.

Table 4.4: Vaccine storage, ambulatory facilities which provide immunization services to children under five

		Ва	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Stores vaccines	37	37.8	(22.5 - 55.2)	46	41.3	(27 - 56.8)	46	47.8	(32.9 - 63.1)	
Collected from another health facility	37	45.9	(29.5 - 63.1)	46	52.2	(36.9 - 67.1)	46	32.6	(19.5 - 48)	
Delivered when immunization services provided	37	13.5	(4.5 - 28.8)	46	6.5	(1.4 - 17.9)	46	17.4	(7.8 - 31.4)	
Does not store vaccines	37	0.0	(0 - 9.5)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	

Table 4.5: Vaccine storage, basic facilities which provide immunization services to children under five

		Ba	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Stores vaccines	11	90.9	(58.7 - 99.8)	7	85.7	(42.1 - 99.6)	11	100	(71.5 - 100)	
Collected from another health facility	11	9.1	(0.2 - 41.3)	7	14.3	(0.4 - 57.9)	11	0	(0 - 28.5)	
Delivered when immunization services provided	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	11	0	(0 - 28.5)	
Does not store vaccines	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	11	0	(0 - 28.5)	

<sup>&</sup>lt;sup>b</sup> Immunization area data missing from two facilities at the baseline



Table 4.6: Vaccine storage, complete facilities which provide immunization services to children under five

		Ва	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Stores vaccines	3	100	(29.2 - 100)	6	83.3	(35.9 - 99.6)	2	100	(15.8 - 100)
Collected from another health facility	3	0	(0 - 70.8)	6	16.7	(0.4 - 64.1)	2	0	(0 - 84.2)
Delivered when immunization services provided	3	0	(0 - 70.8)	6	0.0	(0 - 45.9)	2	0	(0 - 84.2)
Does not store vaccines	3	0	(0 - 70.8)	6	0.0	(0 - 45.9)	2	0	(0 - 84.2)

# 4.3 Vaccine supply

Facilities that store vaccines were also asked logistical questions about vaccines during the questionnaire. The majority of facilities report determining their own needs of vaccines and many receive their supplies within one day. About 18% of ambulatory and basic facilities report almost never receiving the quantity they order.

Table 4.7: Vaccine supply, ambulatory facilities

		Bas	eline		First Fc	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Ordering strategy										
Determines own need	14	100.0	(76.8 - 100)	19	100.0	(82.4 - 100)	22	90.9	(70.8 - 98.9)	
Need determined elsewhere	14	0.0	(0 - 23.2)	19	0.0	(0 - 17.6)	22	9.1	(1.1 - 29.2)	
Both (differ by vaccine)	14	0.0	(0 - 23.2)	19	0.0	(0 - 17.6)	22	0.0	(0 - 15.4)	
Don't know	14	0.0	(0 - 23.2)	19	0.0	(0 - 17.6)	22	0.0	(0 - 15.4)	
Time to receive supplies										
One day	14	78.6	(49.2 - 95.3)	19	84.2	(60.4 - 96.6)	22	72.7	(49.8 - 89.3)	
2 - 7 days	14	21.4	(4.7 - 50.8)	19	15.8	(3.4 - 39.6)	22	27.3	(10.7 - 50.2)	
More than one week	14	0.0	(0 - 23.2)	19	0.0	(0 - 17.6)	22	0.0	(0 - 15.4)	
Reception of quantity ordered										
Always	14	50.0	(23 - 77)	19	42.1	(20.3 - 66.5)	22	31.8	(13.9 - 54.9)	
Almost always	14	42.9	(17.7 - 71.1)	19	47.4	(24.4 - 71.1)	22	50.0	(28.2 - 71.8)	
Almost never	14	7.1	(0.2 - 33.9)	19	10.5	(1.3 - 33.1)	22	18.2	(5.2 - 40.3)	
Don't Know	14	0.0	(0 - 23.2)	19	0.0	(0 - 17.6)	22	0.0	(0 - 15.4)	



Table 4.8: Vaccine supply, basic facilities

		Ва	seline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Ordering strategy										
Determines own need	10	100	(69.2 - 100)	6	100.0	(54.1 - 100)	11	90.9	(58.7 - 99.8)	
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	9.1	(0.2 - 41.3)	
Don't know	10	0	(0 - 30.8)	6	0.0	(0 - 45.9)	11	0.0	(0 - 28.5)	
Time to receive supplies										
One day	10	70	(34.8 - 93.3)	5	80.0	(28.4 - 99.5)	11	63.6	(30.8 - 89.1)	
2 - 7 days	10	30	(6.7 - 65.2)	5	0.0	(0 - 52.2)	11	27.3	(6 - 61)	
More than one week	10	0	(0 - 30.8)	5	20.0	(0.5 - 71.6)	11	9.1	(0.2 - 41.3)	
Reception of quantity ordered										
Always	10	40	(12.2 - 73.8)	6	16.7	(0.4 - 64.1)	11	18.2	(2.3 - 51.8)	
Almost always	10	50	(18.7 - 81.3)	6	66.7	(22.3 - 95.7)	11	63.6	(30.8 - 89.1)	
Almost never	10	10	(0.3 - 44.5)	6	16.7	(0.4 - 64.1)	11	18.2	(2.3 - 51.8)	
Don't Know	10	0	(0 - 30.8)	6	0.0	(0 - 45.9)	11	0.0	(0 - 28.5)	

<sup>&</sup>lt;sup>a</sup> One facility at the first follow-up reported 'don't know/decline to respond' when asked about the time to receive supplies

Table 4.9: Vaccine supply, complete facilities

		Bas	eline		First F	ollow-Up	5	Second	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
Ordering strategy									
Determines own need	3	100.0	(29.2 - 100)	5	100	(47.8 - 100)	2	50	(1.3 - 98.7)
Need determined elsewhere	3	0.0	(0 - 70.8)	5	0	(0 - 52.2)	2	50	(1.3 - 98.7)
Both (differ by vaccine)	3	0.0	(0 - 70.8)	5	0	(0 - 52.2)	2	0	(0 - 84.2)
Don't know	3	0.0	(0 - 70.8)	5	0	(0 - 52.2)	2	0	(0 - 84.2)
Time to receive supplies									
One day	3	66.7	(9.4 - 99.2)	5	80	(28.4 - 99.5)	2	50	(1.3 - 98.7)
2 - 7 days	3	0.0	(0 - 70.8)	5	0	(0 - 52.2)	2	0	(0 - 84.2)
More than one week	3	33.3	(0.8 - 90.6)	5	20	(0.5 - 71.6)	2	50	(1.3 - 98.7)
Reception of quantity ordered									
Always	3	66.7	(9.4 - 99.2)	5	40	(5.3 - 85.3)	2	0	(0 - 84.2)
Almost always	3	0.0	(0 - 70.8)	5	60	(14.7 - 94.7)	2	100	(15.8 - 100)
Almost never	3	33.3	(0.8 - 90.6)	5	0	(0 - 52.2)	2	0	(0 - 84.2)
Don't Know	3	0.0	(0 - 70.8)	5	0	(0 - 52.2)	2	0	(0 - 84.2)



#### 4.4 Vaccines observed

Tables 4.10-4.12 indicate the percentage of facilities for which at least one unit of a specified vaccine was observed on the day of the survey. DPT alone, HepB alone, and Hib alone were only checked for if pentavalent was stocked out on the day of the survey. The vaccine stocks displayed in the following section were observed if the facility reported storing any vaccines and a registry of vaccines was observed, regardless of whether or not they report these services regularly. Vaccine stock related specifically to child care was shown in the previous chapter, however, Tables 4.10-4.12 are not restricted based on provision of child health care.

Table 4.10: Vaccines observed day of survey, ambulatory facilities

		Ba	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Pentavalent	13	76.9	(46.2 - 95)	17	58.8	(32.9 - 81.6)	23	91.3	(72 - 98.9)	
DPT alone	2	0.0	(0 - 84.2)	7	42.9	(9.9 - 81.6)	2	0.0	(0 - 84.2)	
Hepatitis B alone	-	-	-	-	-	-	2	0.0	(0 - 84.2)	
Haemophilus Influenzae Type B alone	-	-	-	-	-	-	2	0.0	(0 - 84.2)	
Polio / IPV	13	46.2	(19.2 - 74.9)	17	52.9	(27.8 - 77)	23	78.3	(56.3 - 92.5)	
Measles, mumps, rubella	13	84.6	(54.6 - 98.1)	17	82.4	(56.6 - 96.2)	23	91.3	(72 - 98.9)	
Rotavirus	13	76.9	(46.2 - 95)	17	76.5	(50.1 - 93.2)	23	82.6	(61.2 - 95)	
Pneumococcal conjugate	13	23.1	(5 - 53.8)	17	58.8	(32.9 - 81.6)	23	73.9	(51.6 - 89.8)	
BCG	13	69.2	(38.6 - 90.9)	17	52.9	(27.8 - 77)	23	82.6	(61.2 - 95)	
Influenza	13	23.1	(5 - 53.8)	17	47.1	(23 - 72.2)	23	65.2	(42.7 - 83.6)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.

Table 4.11: Vaccines observed day of survey, basic facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Pentavalent	8	100.0	(63.1 - 100)	6	33.3	(4.3 - 77.7)	11	81.8	(48.2 - 97.7)	
DPT alone	-	-	-	4	100.0	(39.8 - 100)	2	50.0	(1.3 - 98.7)	
Hepatitis B alone	-	-	-	-	-	-	2	0.0	(0 - 84.2)	
Haemophilus Influenzae Type B alone	-	-	-	-	-	-	2	50.0	(1.3 - 98.7)	
Polio / IPV	8	37.5	(8.5 - 75.5)	6	50.0	(11.8 - 88.2)	11	72.7	(39 - 94)	
Measles, mumps, rubella	8	100.0	(63.1 - 100)	6	100.0	(54.1 - 100)	11	90.9	(58.7 - 99.8)	
Rotavirus	8	87.5	(47.3 - 99.7)	6	100.0	(54.1 - 100)	11	81.8	(48.2 - 97.7)	
Pneumococcal conjugate	8	50.0	(15.7 - 84.3)	6	0.0	(0 - 45.9)	11	72.7	(39 - 94)	
BCG	8	100.0	(63.1 - 100)	6	33.3	(4.3 - 77.7)	11	90.9	(58.7 - 99.8)	
Influenza	8	37.5	(8.5 - 75.5)	6	0.0	(0 - 45.9)	11	45.5	(16.7 - 76.6)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.



Table 4.12: Vaccines observed day of survey, complete facilities

		В	aseline		First	Follow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Pentavalent	5	60	(14.7 - 94.7)	5	60	(14.7 - 94.7)	2	100	(15.8 - 100)	
DPT alone	2	50	(1.3 - 98.7)	2	50	(1.3 - 98.7)	-	-	-	
Hepatitis B alone	-	-	-	-	-	-	-	-	-	
Haemophilus Influenzae Type B alone	-	-	-	-	-	-	-	-	-	
Polio / IPV	5	60	(14.7 - 94.7)	5	20	(0.5 - 71.6)	2	100	(15.8 - 100)	
Measles, mumps, rubella	5	80	(28.4 - 99.5)	5	80	(28.4 - 99.5)	2	100	(15.8 - 100)	
Rotavirus	5	80	(28.4 - 99.5)	5	60	(14.7 - 94.7)	2	100	(15.8 - 100)	
Pneumococcal conjugate	5	60	(14.7 - 94.7)	5	40	(5.3 - 85.3)	2	100	(15.8 - 100)	
BCG	5	40	(5.3 - 85.3)	5	60	(14.7 - 94.7)	2	100	(15.8 - 100)	
Influenza	5	0	(0 - 52.2)	5	40	(5.3 - 85.3)	2	100	(15.8 - 100)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.

# 4.5 Cold chain composite monitoring indicator

Facilities that have at least one working fridge used to store vaccines were evaluated for the cold chain monitoring indicator (7000). According to the indicator, each fridge used to store vaccines must meet the following: have a temperature monitoring chart for each fridge + temperature recorded twice daily during the past 30 days + temperature is 2-8 degrees Celsius on the day of the survey + temperature is 2-8 degrees Celsius in the past 30 days (if it is not 2-8 degrees on any given day, there must be a record of actions). Around 75% of facilities meet the cold chain standard.

Table 4.13: Cold chain composite indicator, ambulatory facilities

	Baseline			First Follow-Up			Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Temperature monitoring chart for each functional refrigerator	12	58.3	(27.7 - 84.8)	16	100.0	(79.4 - 100)	22	100.0	(84.6 - 100)
Temperature recorded twice daily during past 30 days	12	58.3	(27.7 - 84.8)	16	87.5	(61.7 - 98.4)	22	81.8	(59.7 - 94.8)
Temperature is 2-8 degrees celsius on the day of the survey	12	58.3	(27.7 - 84.8)	16	87.5	(61.7 - 98.4)	22	90.9	(70.8 - 98.9)
Temperature is 2-8 degrees celsius in the past 30 days	12	100.0	(73.5 - 100)	16	100.0	(79.4 - 100)	19	100.0	(82.4 - 100)
Cold chain according to standard	12	58.3	(27.7 - 84.8)	16	75.0	(47.6 - 92.7)	22	77.3	(54.6 - 92.2)

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart



Table 4.14: Cold chain composite indicator, basic facilities

	Baseline			First Follow-Up			Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Temperature monitoring chart for each functional refrigerator	7	85.7	(42.1 - 99.6)	6	100.0	(54.1 - 100)	11	90.9	(58.7 - 99.8)
Temperature recorded twice daily during past 30 days	7	85.7	(42.1 - 99.6)	6	83.3	(35.9 - 99.6)	11	90.9	(58.7 - 99.8)
Temperature is 2-8 degrees celsius on the day of the survey	7	85.7	(42.1 - 99.6)	6	100.0	(54.1 - 100)	11	90.9	(58.7 - 99.8)
Temperature is 2-8 degrees celsius in the past 30 days	7	100.0	(59 - 100)	6	100.0	(54.1 - 100)	9	77.8	(40 - 97.2)
Cold chain according to standard	7	85.7	(42.1 - 99.6)	6	83.3	(35.9 - 99.6)	11	72.7	(39 - 94)

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart

Table 4.15: Cold chain composite indicator, complete facilities

	Baseline			First Follow-Up			Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Temperature monitoring chart for each functional refrigerator	4	100	(39.8 - 100)	5	100	(47.8 - 100)	2	100	(15.8 - 100)
Temperature recorded twice daily during past 30 days	4	100	(39.8 - 100)	5	80	(28.4 - 99.5)	2	100	(15.8 - 100)
Temperature is 2-8 degrees celsius on the day of the survey	4	100	(39.8 - 100)	5	100	(47.8 - 100)	2	100	(15.8 - 100)
Temperature is 2-8 degrees celsius in the past 30 days	4	100	(39.8 - 100)	5	100	(47.8 - 100)	2	100	(15.8 - 100)
Cold chain according to standard	4	100	(39.8 - 100)	5	80	(28.4 - 99.5)	2	100	(15.8 - 100)

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart



### 5 Chapter 5: Family planning services

### 5.1 Family planning services provision

This chapter summarizes key information and indicators related to family planning. In the questionnaire component of the survey, facility representatives were asked about service provision and storage. In the observation component of the survey, interviewers observed the stock of certain family planning methods in the previous three months. All health facilities reported providing family planning services.

Table 5.1: Family planning services provision, ambulatory facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers family planning services	40	100.0	(91.2 - 100)	46	100.0	(92.3 - 100)	46	100.0	(92.3 - 100)	
Family planning area										
Visual and auditory privacy	36	72.2	(54.8 - 85.8)	46	87.0	(73.7 - 95.1)	46	91.3	(79.2 - 97.6)	
Non private area	36	11.1	(3.1 - 26.1)	46	10.9	(3.6 - 23.6)	46	8.7	(2.4 - 20.8)	
Visual privacy only	36	2.8	(0.1 - 14.5)	46	2.2	(0.1 - 11.5)	46	0.0	(0 - 7.7)	
Other	36	13.9	(4.7 - 29.5)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	
Do not provide service	36	0.0	(0 - 9.7)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline reported 'don't know/decline to respond' when asked about family planning provision

Table 5.2: Family planning services provision, basic facilities

		Bas	eline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers family planning services	11	100.0	(71.5 - 100)	7	100	(59 - 100)	12	100.0	(73.5 - 100)	
Family planning area										
Visual and auditory privacy	11	90.9	(58.7 - 99.8)	7	100	(59 - 100)	12	83.3	(51.6 - 97.9)	
Non private area	11	0.0	(0 - 28.5)	7	0	(0 - 41)	12	8.3	(0.2 - 38.5)	
Visual privacy only	11	0.0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)	
Other	11	9.1	(0.2 - 41.3)	7	0	(0 - 41)	12	8.3	(0.2 - 38.5)	
Do not provide service	11	0.0	(0 - 28.5)	7	0	(0 - 41)	12	0.0	(0 - 26.5)	

<sup>&</sup>lt;sup>b</sup> Missing family planning area data from five facilities at the baseline



Table 5.3: Family planning services provision, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers family planning services	7	85.7	(42.1 - 99.6)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)	
Family planning area										
Visual and auditory privacy	5	100.0	(47.8 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)	
Non private area	5	0.0	(0 - 52.2)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Visual privacy only	5	0.0	(0 - 52.2)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Other	5	0.0	(0 - 52.2)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Do not provide service	5	0.0	(0 - 52.2)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline reported 'don't know/decline to respond' when asked about family planning provision

#### 5.2 Family planning services composite monitoring indicator

The family planning monitoring indicator (7050) requires that facilities have continuous availability of family planning methods in the last three months. Facilities were only included in this indicator if the interviewer was able to view the family planning room during the observation survey. Interviewers were instructed to observe contraceptive methods and check any kardex or written documentation for stock-out in the last three months.

Ambulatory facilities should have continuous stock of the following: male condoms, oral contraceptive pills, and injectables. At the second follow-up, only 84.8% of ambulatory facilities had continuous stock of these methods.

Table 5.4: Family planning services composite indicator, ambulatory facilities

		Bas	seline		First Fo	llow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All methods observed day of survey:	35	82.9	(66.4 - 93.4)	46	84.8	(71.1 - 93.7)	46	93.5	(82.1 - 98.6)
Male condom	35	97.1	(85.1 - 99.9)	46	100.0	(92.3 - 100)	46	97.8	(88.5 - 99.9)
Oral contraceptive pill	35	91.4	(76.9 - 98.2)	46	84.8	(71.1 - 93.7)	46	93.5	(82.1 - 98.6)
Injectable	35	94.3	(80.8 - 99.3)	46	100.0	(92.3 - 100)	46	97.8	(88.5 - 99.9)
Family planning services according to standard	35	68.6	(50.7 - 83.1)	46	67.4	(52 - 80.5)	46	84.8	(71.1 - 93.7)

<sup>&</sup>lt;sup>a</sup> Family planning according to the standard includes no stock out of male condoms, pills, and injectables in the last three months

Basic facilities should have continuous stock of the following: male condoms, oral contraceptive pills, injectables, and intrauterine devices (IUD). In addition to these items, basic facilities should have an IUD insertion kit available on the day of the survey. Stock of the IUD insertion kit is not required in the last

<sup>&</sup>lt;sup>b</sup> Missing family planning area data from three facilities at the baseline



three months as defined by the indicator. At the second follow-up, only 58.3% of basic facilities have all methods listed in the table below.

Table 5.5: Family planning services composite indicator, basic facilities

		Ва	seline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
All methods observed day of survey:	9	33.3	(7.5 - 70.1)	7	85.7	(42.1 - 99.6)	12	75.0	(42.8 - 94.5)	
Male condom	9	77.8	(40 - 97.2)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Oral contraceptive pill	9	77.8	(40 - 97.2)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Injectable	9	77.8	(40 - 97.2)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Intrauterine device	9	55.6	(21.2 - 86.3)	7	100.0	(59 - 100)	12	75.0	(42.8 - 94.5)	
Intrauterine device insertion kit	9	77.8	(40 - 97.2)	7	85.7	(42.1 - 99.6)	12	100.0	(73.5 - 100)	
Family planning services according to standard	9	33.3	(7.5 - 70.1)	7	71.4	(29 - 96.3)	12	58.3	(27.7 - 84.8)	

<sup>&</sup>lt;sup>a</sup> Family planning according to the standard includes IUD insertion kits available on the day of the survey + no stock out of male condoms, pills, injectables, and IUDs on the day of the survey

Complete facilities should have continuous stock of the following: male condoms, oral contraceptive pills, injectables, and intrauterine devices (IUD). In addition to these items, complete facilities need to have an IUD insertion kit available on the day of the survey, and a doctor trained in tubal ligation and vasectomy. Stock of the IUD insertion kit in the last three months is not a component of this indicator. Only one of the two complete facilities passed this indicator at the second follow-up due to stock out in the past three months and not having a doctor trained in vasectomy.

Table 5.6: Family planning services composite indicator, complete facilities

	Baseline				First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
All methods observed day of survey:	5	80	(28.4 - 99.5)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Male condom	5	100	(47.8 - 100)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Oral contraceptive pill	5	100	(47.8 - 100)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Injectable	5	80	(28.4 - 99.5)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Intrauterinedevice	5	100	(47.8 - 100)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Intrauterine device insertion kit	5	100	(47.8 - 100)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
All methods continuously available in past	5	60	(14.7 - 94.7)	6	66.7	(22.3 - 95.7)	2	50	(1.3 - 98.7)	
three months										
Doctor trained in tubal ligation	5	80	(28.4 - 99.5)	6	66.7	(22.3 - 95.7)	2	100	(15.8 - 100)	
Doctor trained in vasectomy	5	40	(5.3 - 85.3)	6	66.7	(22.3 - 95.7)	2	50	(1.3 - 98.7)	
Family planning services according to standard	5	20	(0.5 - 71.6)	6	33.3	(4.3 - 77.7)	2	50	(1.3 - 98.7)	

<sup>&</sup>lt;sup>a</sup> Family planning according to the standard includes IUD insertion kits available on the day of the survey + no stock out of male condoms, pills, injectables, and IUDs on the day of the survey + doctor trained in tubal ligation and vasectomy



The composite family planning monitoring indicator only evaluates stock of specific contraceptive methods. The tables below display a more comprehensive list of family planning methods that are captured in the observation survey, and data on trained personnel that are captured in the questionnaire.

Table 5.7: Family planning methods observed, ambulatory facilities

		Bas	seline		First Fo	llow-Up	Second Follow-Up				
	N	%	CI	N	%	CI	N	%	CI		
Male condom	35	97.1	(85.1 - 99.9)	46	100.0	(92.3 - 100)	46	97.8	(88.5 - 99.9)		
Femalecondom	35	8.6	(1.8 - 23.1)	46	78.3	(63.6 - 89.1)	46	89.1	(76.4 - 96.4)		
Oral contraceptive pill	35	91.4	(76.9 - 98.2)	46	84.8	(71.1 - 93.7)	46	93.5	(82.1 - 98.6)		
Injectable	35	94.3	(80.8 - 99.3)	46	100.0	(92.3 - 100)	46	97.8	(88.5 - 99.9)		
Implant	-	-	-	46	91.3	(79.2 - 97.6)	46	89.1	(76.4 - 96.4)		
Intrauterine device (IUD)	35	62.9	(44.9 - 78.5)	46	95.7	(85.2 - 99.5)	46	65.2	(49.8 - 78.6)		
Emergency contraceptive pill	35	25.7	(12.5 - 43.3)	46	78.3	(63.6 - 89.1)	46	69.6	(54.2 - 82.3)		
Spermicide	35	0.0	(0 - 10)	46	4.3	(0.5 - 14.8)	46	0.0	(0 - 7.7)		
Diaphragm	35	0.0	(0 - 10)	46	4.3	(0.5 - 14.8)	46	0.0	(0 - 7.7)		
Doctor trained to insert IUD	40	77.5	(61.5 - 89.2)	45	80.0	(65.4 - 90.4)	46	78.3	(63.6 - 89.1)		
Nurse trained to insert IUD	-	-	-	-	-	-	45	77.8	(62.9 - 88.8)		
Doctor trained to place implant	-	-	-	-	-	-	46	78.3	(63.6 - 89.1)		
Nurse trained to place implant	-	-	-	-	-	-	46	95.7	(85.2 - 99.5)		

<sup>&</sup>lt;sup>a</sup> Implant not captured at ambulatory facilities at the baseline

<sup>&</sup>lt;sup>b</sup> The baseline and first follow-up data did not capture if the facility has a trained doctor for implants, or a nurse for implants or IUD insertion



Table 5.8: Family planning methods observed, basic facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Male condom	9	77.8	(40 - 97.2)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Female condom	9	11.1	(0.3 - 48.2)	7	71.4	(29 - 96.3)	12	100.0	(73.5 - 100)	
Oral contraceptive pill	9	77.8	(40 - 97.2)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Injectable	9	77.8	(40 - 97.2)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Implant	9	11.1	(0.3 - 48.2)	7	85.7	(42.1 - 99.6)	12	100.0	(73.5 - 100)	
Intrauterine device (IUD)	9	55.6	(21.2 - 86.3)	7	100.0	(59 - 100)	12	75.0	(42.8 - 94.5)	
IUD insertion kit	9	77.8	(40 - 97.2)	7	85.7	(42.1 - 99.6)	12	100.0	(73.5 - 100)	
Emergency contraceptive pill	9	33.3	(7.5 - 70.1)	7	85.7	(42.1 - 99.6)	12	91.7	(61.5 - 99.8)	
Spermicide	9	0.0	(0 - 33.6)	7	14.3	(0.4 - 57.9)	12	0.0	(0 - 26.5)	
Diaphragm	9	11.1	(0.3 - 48.2)	7	28.6	(3.7 - 71)	12	0.0	(0 - 26.5)	
Doctor trained to insert IUD	-	-	-	-	-	-	12	100.0	(73.5 - 100)	
Nurse trained to insert IUD	-	-	-	-	-	-	12	83.3	(51.6 - 97.9)	
Doctor trained to place implant	-	-	-	-	-	-	12	100.0	(73.5 - 100)	
Nurse trained to place implant	-	-	-	-	-	-	12	100.0	(73.5 - 100)	
Trained doctor for tubal ligation	11	18.2	(2.3 - 51.8)	7	14.3	(0.4 - 57.9)	11	36.4	(10.9 - 69.2)	
Trained doctor for vasectomy	11	9.1	(0.2 - 41.3)	7	28.6	(3.7 - 71)	11	27.3	(6 - 61)	

<sup>&</sup>lt;sup>a</sup> Data on trained doctors and nurses for IUD and implant insertion was not captured at basic and complete facilities at the baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Data on trained doctor for tubal ligation and vasectomy missing for one facility at the second follow-up due to survey logic



Table 5.9: Family planning methods observed, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Male condom	6	100.0	(54.1 - 100)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Female condom	6	0.0	(0 - 45.9)	6	66.7	(22.3 - 95.7)	2	100	(15.8 - 100)	
Oral contraceptive pill	6	100.0	(54.1 - 100)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Injectable	6	83.3	(35.9 - 99.6)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Implant	6	33.3	(4.3 - 77.7)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Intrauterine device (IUD)	6	83.3	(35.9 - 99.6)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
IUD insertion kit	6	100.0	(54.1 - 100)	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Emergency contraceptive pill	6	83.3	(35.9 - 99.6)	6	100.0	(54.1 - 100)	2	50	(1.3 - 98.7)	
Spermicide	6	0.0	(0 - 45.9)	6	0.0	(0 - 45.9)	2	0	(0 - 84.2)	
Diaphragm	6	16.7	(0.4 - 64.1)	6	0.0	(0 - 45.9)	2	0	(0 - 84.2)	
Doctor trained to insert IUD	-	-	-	-	-	-	2	100	(15.8 - 100)	
Nurse trained to insert IUD	-	-	-	-	-	-	2	100	(15.8 - 100)	
Doctor trained to place implant	-	-	-	-	-	-	2	100	(15.8 - 100)	
Nurse trained to place implant	-	-	-	-	-	-	2	100	(15.8 - 100)	
Trained doctor for tubal ligation	6	83.3	(35.9 - 99.6)	6	66.7	(22.3 - 95.7)	2	100	(15.8 - 100)	
Trained doctor for vasectomy	6	33.3	(4.3 - 77.7)	6	66.7	(22.3 - 95.7)	2	50	(1.3 - 98.7)	

<sup>&</sup>lt;sup>a</sup> Data on trained doctors and nurses for IUD and implant insertion was not captured at basic and complete facilities at the baseline and first follow-up



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

#### 6.1 Service provision

This chapter summarizes key indicators and information related to maternal health. Interviewers observed 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. Uncomplicated delivery and postpartum care medical records were reviewed in basic and complete level facilities.

Table 6.1 displays antenatal care (ANC) service provision for ambulatory facilities, while Tables 6.2 and 6.3 display ANC care, delivery (DEL), and immediate postpartum care (PPM) provision in basic and complete facilities. All ambulatory facilities offer ANC services when asked in the questionnaire (Table 6.1). The majority of these facilities have an ANC room with visual and auditory privacy.

Table 6.1: Antenatal care service provision, ambulatory facilities

		Bas	eline		First Fc	llow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers antenatal care services	40	100.0	(91.2 - 100)	46	100.0	(92.3 - 100)	46	100.0	(92.3 - 100)	
Antenatal care area										
Visual and auditory privacy	38	81.6	(65.7 - 92.3)	46	93.5	(82.1 - 98.6)	46	95.7	(85.2 - 99.5)	
Visual privacy only	38	2.6	(0.1 - 13.8)	46	2.2	(0.1 - 11.5)	46	2.2	(0.1 - 11.5)	
Non private area	38	15.8	(6 - 31.3)	46	4.3	(0.5 - 14.8)	46	2.2	(0.1 - 11.5)	
Other	38	0.0	(0 - 9.3)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	
Do not provide service	38	0.0	(0 - 9.3)	46	0.0	(0 - 7.7)	46	0.0	(0 - 7.7)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline reported 'don't know/decline to respond' when asked about ANC service provision

Although 75% of basic facilities report offering routine ANC services in the second follow-up questionnaire, 91.7% of basic facilities report having a room for ANC-PPM care when asked during the observation (Table 6.2). All basic facilities report offering delivery services in a room with visual and auditory privacy.

<sup>&</sup>lt;sup>b</sup> ANC room data missing from three facilities at the baseline



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

		Bas	eline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers antenatal care services	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	75.0	(42.8 - 94.5)	
Offers (non-urgent) delivery services	11	81.8	(48.2 - 97.7)	7	85.7	(42.1 - 99.6)	11	100.0	(71.5 - 100)	
Antenatal care area										
Visual and auditory privacy	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
Visual privacy only	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)	
Non private area	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)	
Other	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)	
Do not provide service	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	8.3	(0.2 - 38.5)	
Delivery area										
Visual and auditory privacy	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Visual privacy only	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)	
Non private area	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)	
Other	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)	
Do not provide service	11	0.0	(0 - 28.5)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)	

Although neither of the complete facilities report offering routine ANC services in the second follow-up questionnaire, they both report having a room for ANC-PPM care when asked during the observation (Table 6.3). Both complete facilities report offering delivery services in a room with visual and auditory privacy.

Table 6.3: Antenatal care and delivery service provision, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Offers antenatal care services	7	85.7	(42.1 - 99.6)	7	71.4	(29 - 96.3)	2	0	(0 - 84.2)	
Offers (non-urgent) delivery services	7	85.7	(42.1 - 99.6)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)	
Antenatal care area										
Visual and auditory privacy	6	100.0	(54.1 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)	
Visual privacy only	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Non private area	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Other	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Do not provide service	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Delivery area										
Visual and auditory privacy	6	100.0	(54.1 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)	
Visual privacy only	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Non private area	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Other	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Do not provide service	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	

 $<sup>^{\</sup>rm a}\,$  ANC and delivery area data missing from two facilities at baseline.



#### 6.2 ANC and PPC equipment

Specific equipment, drugs, and laboratory inputs are necessary for ANC/PPC, as defined by the monitoring indicator for ANC/PPC (7020). Facilities were only included in the indicator if they 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. Tables 6.4-6.6 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.

For the ANC/PPC monitoring indicator, all facilities are required to have the following on the day of the survey: scale, height rod, gynecological exam table, lamp, CLAP/measuring tape, blood pressure apparatus, stethoscope, maternal history card, and ANC card. Additionally, basic and complete facilities are required to have an intrauterine device (IUD) kit. At the second follow-up, 71.7% of ambulatory, 90.9% of basic, and 100% of complete facilities have all necessary equipment for ANC/PPC care. The largest improvements in stock can be seen in the CLAP/measuring tape, scale, and lamp for most facilities in the tables below.

Table 6.4: ANC and PPC equipment observed and functional, ambulatory facilities

		Ba	seline		First Fc	llow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Scale	38	71.1	(54.1 - 84.6)	45	100.0	(92.1 - 100)	46	100.0	(92.3 - 100)	
Height rod	38	86.8	(71.9 - 95.6)	45	100.0	(92.1 - 100)	46	97.8	(88.5 - 99.9)	
Gynecological exam table	33	81.8	(64.5 - 93)	36	100.0	(90.3 - 100)	46	97.8	(88.5 - 99.9)	
Lamp	38	65.8	(48.6 - 80.4)	45	93.3	(81.7 - 98.6)	46	95.7	(85.2 - 99.5)	
CLAP / measuring tape	38	34.2	(19.6 - 51.4)	45	100.0	(92.1 - 100)	46	95.7	(85.2 - 99.5)	
Blood pressure apparatus	38	86.8	(71.9 - 95.6)	45	95.6	(84.9 - 99.5)	46	95.7	(85.2 - 99.5)	
Stethoscope	38	86.8	(71.9 - 95.6)	45	100.0	(92.1 - 100)	46	95.7	(85.2 - 99.5)	
Maternal history card	38	89.5	(75.2 - 97.1)	45	93.3	(81.7 - 98.6)	46	87.0	(73.7 - 95.1)	
ANC card	38	92.1	(78.6 - 98.3)	45	93.3	(81.7 - 98.6)	46	100.0	(92.3 - 100)	
All ANC/PPC equipment observed and	38	21.1	(9.6 - 37.3)	45	80.0	(65.4 - 90.4)	46	71.7	(56.5 - 84)	
functional										



Table 6.5: ANC and PPC equipment observed and functional, basic facilities

		Bas	eline		First F	ollow-Up		Second I	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Scale	11	72.7	(39 - 94)	7	85.7	(42.1 - 99.6)	11	100.0	(71.5 - 100)
Height rod	11	90.9	(58.7 - 99.8)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Gynecological exam table	11	81.8	(48.2 - 97.7)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Lamp	11	63.6	(30.8 - 89.1)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
CLAP / measuring tape	11	18.2	(2.3 - 51.8)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Blood pressure apparatus	11	90.9	(58.7 - 99.8)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Stethoscope	11	90.9	(58.7 - 99.8)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Maternal history card	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	11	90.9	(58.7 - 99.8)
ANC card	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	11	90.9	(58.7 - 99.8)
Intrauterine device kit	11	63.6	(30.8 - 89.1)	7	85.7	(42.1 - 99.6)	11	100.0	(71.5 - 100)
All ANC/PPC equipment observed and	11	9.1	(0.2 - 41.3)	7	71.4	(29 - 96.3)	11	90.9	(58.7 - 99.8)
functional									

Table 6.6: ANC and PPC equipment observed and functional, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Scale	6	66.7	(22.3 - 95.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Height rod	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Gynecological exam table	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Lamp	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
CLAP / measuring tape	6	16.7	(0.4 - 64.1)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Blood pressure apparatus	6	66.7	(22.3 - 95.7)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Stethoscope	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Maternal history card	6	83.3	(35.9 - 99.6)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
ANC card	6	66.7	(22.3 - 95.7)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)
Intrauterine device kit	6	100.0	(54.1 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
All ANC/PPC equipment observed and	6	16.7	(0.4 - 64.1)	7	28.6	(3.7 - 71)	2	100	(15.8 - 100)
functional									

#### 6.3 ANC and PPC drugs

As mentioned in section 6.2, specific equipment and drugs are necessary for ANC/PPC as defined by the monitoring indicator for ANC/PPC (7020). The drugs included in this indicator can be found in Tables 6.7-6.9 below. Interviewers were instructed to observe the drugs and check any kardex or written documentation for stockout in the last three months. If the facility did not have 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.

Ambulatory facilities without a doctor only need availability of multivitamins / (iron + folic acid) in the last three months. Ambulatory facilities with a doctor should have continuous availability of the following drugs in the last three months: multivitamins/(iron + folic acid), ayre's palettes, slides, nitrofurantoin,



erythromycin/ampicillin/penicillin, and tetanus vaccine (only if the facility reports storing vaccines). Only 45.7% of ambulatory facilities had stock on the day of the survey, however, this is a large improvement from only 13.2% at the baseline.

Table 6.7: ANC and PPC drugs observed, ambulatory facilities

		Ba	seline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Multivitamins/(Iron + Folic acid	38	76.3	(59.8 - 88.6)	45	97.8	(88.2 - 99.9)	46	100.0	(92.3 - 100)	
Ayre's palettes	33	42.4	(25.5 - 60.8)	36	80.6	(64 - 91.8)	36	97.2	(85.5 - 99.9)	
Slides	33	63.6	(45.1 - 79.6)	36	88.9	(73.9 - 96.9)	36	100.0	(90.3 - 100)	
Nitrofurantoin	33	72.7	(54.5 - 86.7)	36	97.2	(85.5 - 99.9)	36	80.6	(64 - 91.8)	
Erythromycin/Ampicillin/Penicillin	33	78.8	(61.1 - 91)	36	100.0	(90.3 - 100)	36	100.0	(90.3 - 100)	
Tetanus vaccine (if facility stores vaccines)	15	40.0	(16.3 - 67.7)	16	81.2	(54.4 - 96)	21	85.7	(63.7 - 97)	
All drugs observed on the day of the survey	38	15.8	(6 - 31.3)	45	73.3	(58.1 - 85.4)	46	78.3	(63.6 - 89.1)	
All drugs available on the day of the survey + no stock out in the last 3 months	38	13.2	(4.4 - 28.1)	45	48.9	(33.7 - 64.2)	46	45.7	(30.9 - 61)	

<sup>&</sup>lt;sup>a</sup> Ambulatory facilities without a doctor only required to have multivitamins / (iron + folic acid). Tetanus vaccine only required if an ambulatory facility with a doctor stores vaccines.

Basic and complete facilities should have all of the following drugs in the last three months: multivitamins / (iron + folic acid), ayre's palettes, slides, nitrofurantoin, cephalexin, and tetanus vaccine (if the facility reports storing vaccines). All basic facilities had multivitamins / (iron + folic acid), ayre's palettes, and nitrofurantoin on the day of the survey, but only 18.2% had continuous of all drugs in the last three months.

Table 6.8: ANC and PPC drugs observed, basic facilities

		Bas	seline		First F	ollow-Up		Second I	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
Multivitamins/(Iron + Folic acid	11	63.6	(30.8 - 89.1)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Ayre's palettes	11	0.0	(0 - 28.5)	7	71.4	(29 - 96.3)	11	100.0	(71.5 - 100)
Slides	11	9.1	(0.2 - 41.3)	7	57.1	(18.4 - 90.1)	11	72.7	(39 - 94)
Nitrofurantoin	11	45.5	(16.7 - 76.6)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Cephalexin	11	27.3	(6 - 61)	7	100.0	(59 - 100)	11	54.5	(23.4 - 83.3)
Tetanus vaccine (if facility stores vaccines)	8	12.5	(0.3 - 52.7)	6	100.0	(54.1 - 100)	10	80.0	(44.4 - 97.5)
All drugs observed on the day of the survey	11	0.0	(0 - 28.5)	7	57.1	(18.4 - 90.1)	11	36.4	(10.9 - 69.2)
All drugs available on the day of the survey + no stock out in the last 3 months	11	0.0	(0 - 28.5)	7	28.6	(3.7 - 71)	11	18.2	(2.3 - 51.8)

<sup>&</sup>lt;sup>a</sup> Tetanus vaccine only required if facility stores vaccines.

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table 6.9: ANC and PPC drugs observed, complete facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Multivitamins/(Iron + Folic acid	6	33.3	(4.3 - 77.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Ayre's palettes	6	0.0	(0 - 45.9)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Slides	6	33.3	(4.3 - 77.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Nitrofurantoin	6	33.3	(4.3 - 77.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Cephalexin	6	33.3	(4.3 - 77.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Tetanus vaccine (if facility stores vaccines)	5	20.0	(0.5 - 71.6)	5	80.0	(28.4 - 99.5)	2	100	(15.8 - 100)
All drugs observed on the day of the survey	6	0.0	(0 - 45.9)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)
All drugs available on the day of the survey + no stock out in the last 3 months	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	50	(1.3 - 98.7)

<sup>&</sup>lt;sup>a</sup> Tetanus vaccine only required if facility stores vaccines.

#### 6.4 ANC and PPC laboratory inputs

Specific laboratory inputs are needed for ANC/PPC at basic and complete facilities according to the ANC/PPC monitoring indicator (7020). These laboratory inputs can be found in tables 6.10 and 6.11. Facilities were not required to have these inputs if the interviewer did not enter into a laboratory on the day of the survey. Interviewers were instructed to observe the kardex or written documentation for stockout in the last three months when needed. If the facility did not have documentation at the second follow-up regarding stock in the previous three months, the facility was considered to be stocked out and did not pass that portion of the indicator.

Basic facilities should have the following in their laboratory: rapid HIV test, rapid syphilis test, urinalysis, glucometer, cell counter, microcuvettes, pregnancy test, blood type antibodies on the day of the survey, as well as no stock out of Rh factor antibodies in the last three months. 54.5% of facilities had all lab inputs at the second follow-up compared to 22.2% at the baseline and 28.6% at the first follow-up.

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table 6.10: ANC and PPC laboratory inputs, basic facilities

		Bas	seline		First F	ollow-Up		Second	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
Rapid HIV test	9	88.9	(51.8 - 99.7)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Rapid syphilis test	9	77.8	(40 - 97.2)	7	85.7	(42.1 - 99.6)	11	90.9	(58.7 - 99.8)
Urinalysis	9	100.0	(66.4 - 100)	7	85.7	(42.1 - 99.6)	11	100.0	(71.5 - 100)
Glucometer	9	100.0	(66.4 - 100)	7	57.1	(18.4 - 90.1)	11	90.9	(58.7 - 99.8)
Cell counter	9	88.9	(51.8 - 99.7)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Microcuvettes	9	22.2	(2.8 - 60)	7	57.1	(18.4 - 90.1)	11	63.6	(30.8 - 89.1)
Pregnancy test	9	100.0	(66.4 - 100)	7	100.0	(59 - 100)	11	100.0	(71.5 - 100)
Blood type antibodies	9	100.0	(66.4 - 100)	7	85.7	(42.1 - 99.6)	11	90.9	(58.7 - 99.8)
RH factor antibodies	9	100.0	(66.4 - 100)	7	85.7	(42.1 - 99.6)	11	90.9	(58.7 - 99.8)
All lab inputs observed on the day of the survey	9	22.2	(2.8 - 60)	7	42.9	(9.9 - 81.6)	11	54.5	(23.4 - 83.3)
All lab inputs observed on the day of the survey + no stock out of Rh factor antibodies in the last 3 months	9	22.2	(2.8 - 60)	7	28.6	(3.7 - 71)	11	54.5	(23.4 - 83.3)

Complete facilities should have the following in their laboratory inputs: rapid HIV test, rapid syphilis test, urinalysis, glucometer, cell counter, blood type antibodies on the day of the survey, as well as no stock out of Rh factor antibodies in the last three months. All equipment was in stock at the second follow-up.

Table 6.11: ANC and PPC laboratory inputs, complete facilities

		Ва	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Rapid HIV test	6	0.0	(0 - 45.9)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Rapid syphilis test	6	33.3	(4.3 - 77.7)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Urinalysis	6	33.3	(4.3 - 77.7)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)
Glucometer	6	50.0	(11.8 - 88.2)	7	28.6	(3.7 - 71)	2	100	(15.8 - 100)
Cell counter	6	33.3	(4.3 - 77.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Blood type antibodies	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
RH factor antibodies	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
All lab inputs observed on the day of the	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	100	(15.8 - 100)
survey									
All lab inputs observed on the day of the	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	100	(15.8 - 100)
survey + no stock out of Rh factor									
antibodies in the last 3 months									

### 6.5 ANC/PPC composite monitoring indicator

As described previously, the ANC monitoring indicator requires all equipment, drugs, and laboratory inputs listed in sections 6.2-6.4 of this report. The tables below display the overall indicator values by facility type.



Table 6.12: ANC and PPC composite indicator, ambulatory facilities

	Baseline				First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
All ANC/PPC equipment observed and functional	38	21.1	(9.6 - 37.3)	45	80.0	(65.4 - 90.4)	46	71.7	(56.5 - 84)	
All drugs available on the day of the survey	38	15.8	(6 - 31.3)	45	73.3	(58.1 - 85.4)	46	78.3	(63.6 - 89.1)	
All drugs available on the day of the survey + the last 3 months	38	13.2	(4.4 - 28.1)	45	48.9	(33.7 - 64.2)	46	45.7	(30.9 - 61)	
ANC/PPC according to standard	38	5.3	(0.6 - 17.7)	45	44.4	(29.6 - 60)	46	32.6	(19.5 - 48)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table 6.13: ANC and PPC composite indicator, basic facilities

		Bas	eline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
All ANC/PPC equipment observed and functional	11	9.1	(0.2 - 41.3)	7	71.4	(29 - 96.3)	11	90.9	(58.7 - 99.8)	
All drugs available on the day of the survey	11	0.0	(0 - 28.5)	7	57.1	(18.4 - 90.1)	11	36.4	(10.9 - 69.2)	
All drugs available on the day of the survey + the last 3 months	11	0.0	(0 - 28.5)	7	28.6	(3.7 - 71)	11	18.2	(2.3 - 51.8)	
All lab inputs observed on the day of the survey	9	22.2	(2.8 - 60)	7	42.9	(9.9 - 81.6)	11	54.5	(23.4 - 83.3)	
All lab inputs available on the day of the survey + last 3 months	9	22.2	(2.8 - 60)	7	28.6	(3.7 - 71)	11	54.5	(23.4 - 83.3)	
ANC/PPC according to standard	11	0.0	(0 - 28.5)	7	14.3	(0.4 - 57.9)	11	9.1	(0.2 - 41.3)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table 6.14: ANC and PPC composite indicator, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All ANC/PPC equipment observed and functional	6	16.7	(0.4 - 64.1)	7	28.6	(3.7 - 71)	2	100	(15.8 - 100)
All drugs available on the day of the survey	6	0.0	(0 - 45.9)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)
All drugs available on the day of the survey + the last 3 months	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	50	(1.3 - 98.7)
All lab inputs observed on the day of the survey	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	100	(15.8 - 100)
All lab inputs available on the day of the survey + last 3 months	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	100	(15.8 - 100)
ANC/PPC according to standard	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)	2	50	(1.3 - 98.7)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

## 6.6 Antenatal care medical record review: Timely first ANC visit performance indicator

Doctors and nurses systematically selected antenatal care (ANC) records from all facilities for women who delivered in the last two years. Records were evaluated on the timeliness of the first ANC visit using reported gestational age in the record. According to the timely ANC monitoring indicator (3040), the first visit should be at or before 12 weeks' gestation. Among the records sampled, only 34.4% of ambulatory facilities, 41.7% of basic, and 50% of complete records met this requirement. However, this is an improvement from the baseline where only 18.1% of ambulatory, 33.8% of basic, and 25% of complete facilities met the same requirements. Records from complete facilities were not collected at the second follow-up evaluation.

Table 6.15: ANC timeliness, medical records from ambulatory facilities

		Base	eline		First Fo	llow-Up	Sec	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI		
First ANC visit within 12 weeks	72	18.1	(10 - 28.9)	315	27.6	(22.8 - 32.9)	448	34.4	(30 - 39)		

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first and second follow-up, gestational age was reported in the record



Table 6.16: ANC timeliness, medical records from basic facilities

		Ba	seline		First Fo	llow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
First ANC visit within 12 weeks	68	33.8	(22.8 - 46.3)	94	39.4	(29.4 - 50)	57	43.9	(30.7 - 57.6)	

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first and second follow-up, gestational age was reported in the record

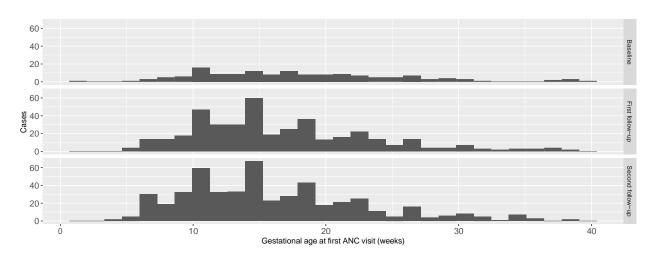
Table 6.17: ANC timeliness, medical records from complete facilities

		Ва	seline	First Follow-Up				
	N	%	CI	N	%	CI		
First ANC visit within 12 weeks	8	25	(3.2 - 65.1)	6	50	(11.8 - 88.2)		

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first follow-up, gestational age was reported in the record

The histogram shows the number of women who had their first ANC visit at a specific gestational age.

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



## 6.7 Antenatal care medical record review: five ANC visits with quality performance indicator

Doctors and nurses systematically selected antenatal (ANC) records from ambulatory facilities for women who delivered in the last two years. ANC visits with quality are defined by the performance indicator



(3035), which includes five ANC visits minimum, with physical checkups performed at each ANC visit. Additionally, specific laboratory tests must be performed at least once during the pregnancy. The indicator is comprised of the following:

- 1. The woman had at least five ANC visits throughout her pregnancy with the following checked and documented at each visit in the record:
- Weight
- Blood pressure
- Fundal height (if gestational age > 13 weeks)
- Fetal heart rate (if gestational age > 20 weeks)
- Fetal movement (if gestational age > 20 weeks)
- 2. The woman was administered all of the following laboratory tests at least once during her pregnancy:
- Blood glucose
- HIV test
- Hemoglobin
- Urinalysis

Figure 6.18 displays a breakdown of this indicator from the baseline to second follow-up evaluation. The first line displays if there was a minimum of five visits, regardless of whether or not any checks were recorded. The second line displays if there was a minimum of five visits that had the appropriate checks listed above, and lines 3 displays if all of the laboratory tests were performed, with a breakdown of each individual test below. Only 12.9% of medical records at the second follow-up evaluation passed this indicator. Just over half of the records from the second follow-up met the minimum requirement of 5 ANC visits, however, this is still a large improvement from the baseline where only 39.7% had a minimum of 5 visits.

Table 6.18: At least five ANC visits to standard, medical records from ambulatory facilities

		Bas	seline		First Fo	llow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
At least five ANC visits	73	41.1	(29.7 - 53.2)	321	48.3	(42.7 - 53.9)	457	56.9	(52.2 - 61.5)
All appropriate checks performed, at least five ANC visits	73	64.4	(52.3 - 75.3)	321	59.2	(53.6 - 64.6)	457	45.3	(40.7 - 50)
All lab tests performed at least once	73	17.8	(9.8 - 28.5)	321	21.8	(17.4 - 26.7)	457	21.2	(17.6 - 25.3)
during pregnancy:									
Blood glucose	73	27.4	(17.6 - 39.1)	321	28.3	(23.5 - 33.6)	457	46.4	(41.7 - 51.1)
HIV test	73	26.0	(16.5 - 37.6)	321	26.5	(21.7 - 31.7)	457	48.1	(43.5 - 52.8)
Hemoglobin	73	23.3	(14.2 - 34.6)	321	29.3	(24.4 - 34.6)	457	36.1	(31.7 - 40.7)
Urinalysis	73	24.7	(15.3 - 36.1)	321	27.4	(22.6 - 32.6)	457	40.5	(35.9 - 45.1)
Antenatal care performed according to standard	73	6.8	(2.3 - 15.3)	321	12.5	(9.1 - 16.6)	457	12.9	(10 - 16.3)

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

<sup>&</sup>lt;sup>b</sup> At the baseline, fetal checks and fundal height were captured only if gestational age at the first visit was eligible



## 6.8 Antenatal care medical record review: four ANC visits with quality monitoring indicator

Doctors and nurses systematically selected antenatal (ANC) records from facilities for women who delivered in the last two years. While the previous section described ANC visits with quality as defined by the performance indicator, this section describes ANC visits with quality as defined by one of the monitoring indicators (3030). This applies ANC records from all facility types, and includes four ANC visits minimum, with physical checkups performed at each ANC visit. Additionally, specific laboratory tests must be performed at least once during the pregnancy. The indicator is comprised of the following:

- 1. The woman had at least four ANC visits throughout her pregnancy with the following checked and documented at each visit in the record:
- Weight
- Blood pressure
- Fundal height
- Presence of edemas
- Reflexes
- Fetal heart rate (if gestational age > 20 weeks)
- Fetal movement (if gestational age > 20 weeks)
- 2. The woman was administered all of the following laboratory tests at least once during her pregnancy:
- Blood type
- · Rh factor
- Blood glucose
- VDRL/RPR
- Hemoglobin
- Urinalysis
- HIV (ambulatory only)
- Platelet count (ambulatory only)
- Uric acid in blood (ambulatory only)
- Uric acid in urine (ambulatory only)

While more women at ambulatory facilities received a minimum of four ANC visits (74.4%) when compared to the performance indicator, no woman was treated appropriately. Only 18.3% of women at basic facilities were treated appropriately as shown in Table 6.20.



Table 6.19: At least four ANC visits to standard, medical records from ambulatory facilities

		Bas	seline		First Fo	llow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
At least four ANC visits	78	65.4	(53.8 - 75.8)	321	70.4	(65.1 - 75.3)	457	74.4	(70.1 - 78.3)
All appropriate checks performed, at least	78	44.9	(33.6 - 56.6)	321	42.1	(36.6 - 47.7)	457	26.3	(22.3 - 30.5)
four ANC visits									
All lab tests performed at least once	78	12.8	(6.3 - 22.3)	321	19.0	(14.9 - 23.7)	457	0.4	(0.1 - 1.6)
during pregnancy:									
Blood group	78	23.1	(14.3 - 34)	321	26.2	(21.4 - 31.3)	457	35.0	(30.6 - 39.6)
Rh factor	78	23.1	(14.3 - 34)	321	25.9	(21.2 - 31)	457	34.8	(30.4 - 39.4)
Blood glucose	78	25.6	(16.4 - 36.8)	321	28.3	(23.5 - 33.6)	457	46.4	(41.7 - 51.1)
HIV test	78	24.4	(15.3 - 35.4)	321	26.5	(21.7 - 31.7)	457	48.1	(43.5 - 52.8)
Platelet count	78	21.8	(13.2 - 32.6)	321	27.1	(22.3 - 32.3)	457	31.3	(27.1 - 35.8)
Uric acid in blood	78	23.1	(14.3 - 34)	321	23.4	(18.8 - 28.4)	457	7.7	(5.4 - 10.5)
Uric acid in urine	78	20.5	(12.2 - 31.2)	321	23.4	(18.8 - 28.4)	457	5.0	(3.2 - 7.5)
Syphilis test (VDRL / RPR*)	78	19.2	(11.2 - 29.7)	321	26.5	(21.7 - 31.7)	457	35.2	(30.8 - 39.8)
Hemoglobin	78	21.8	(13.2 - 32.6)	321	29.3	(24.4 - 34.6)	457	36.1	(31.7 - 40.7)
Urinalysis	78	26.9	(17.5 - 38.2)	321	27.4	(22.6 - 32.6)	457	40.5	(35.9 - 45.1)
Antenatal care performed according to standard	78	6.4	(2.1 - 14.3)	321	13.7	(10.1 - 18)	457	0.0	(0 - 0.8)

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

Table 6.20: At least four ANC visits to standard, medical records from basic facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
At least four ANC visits	75	77.3	(66.2 - 86.2)	94	80.9	(71.4 - 88.2)	60	73.3	(60.3 - 83.9)
All appropriate checks performed, at least	75	66.7	(54.8 - 77.1)	94	44.7	(34.4 - 55.3)	60	41.7	(29.1 - 55.1)
four ANC visits									
All lab tests performed at least once	75	52.0	(40.2 - 63.7)	94	40.4	(30.4 - 51)	60	33.3	(21.7 - 46.7)
during pregnancy:									
Blood group	75	65.3	(53.5 - 76)	94	67.0	(56.6 - 76.4)	60	58.3	(44.9 - 70.9)
Rh factor	75	65.3	(53.5 - 76)	94	67.0	(56.6 - 76.4)	60	58.3	(44.9 - 70.9)
Blood glucose	75	65.3	(53.5 - 76)	94	69.1	(58.8 - 78.3)	60	63.3	(49.9 - 75.4)
Syphilis test (VDRL / RPR*)	75	57.3	(45.4 - 68.7)	94	70.2	(59.9 - 79.2)	60	65.0	(51.6 - 76.9)
Hemoglobin	75	60.0	(48 - 71.1)	94	69.1	(58.8 - 78.3)	60	61.7	(48.2 - 73.9)
Urinalysis	75	57.3	(45.4 - 68.7)	94	70.2	(59.9 - 79.2)	60	61.7	(48.2 - 73.9)
Antenatal care performed according to standard	75	28.0	(18.2 - 39.6)	94	22.3	(14.4 - 32.1)	60	18.3	(9.5 - 30.4)

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

<sup>&</sup>lt;sup>b</sup> At the baseline, fetal checks were captured only if gestational age at the first visit was eligible

<sup>&</sup>lt;sup>b</sup> At the baseline, fetal checks were captured only if gestational age at the first visit was eligible



Table 6.21: At least four ANC visits to standard, medical records from complete facilities

		Ва	seline		First F	ollow-Up
	N	%	CI	N	%	CI
At least four ANC visits	8	62.5	(24.5 - 91.5)	6	50.0	(11.8 - 88.2)
All appropriate checks performed, at least	8	25.0	(3.2 - 65.1)	6	16.7	(0.4 - 64.1)
four ANC visits						
All lab tests performed at least once	8	0.0	(0 - 36.9)	6	0.0	(0 - 45.9)
during pregnancy:						
Blood group	8	25.0	(3.2 - 65.1)	6	16.7	(0.4 - 64.1)
Rh factor	8	25.0	(3.2 - 65.1)	6	16.7	(0.4 - 64.1)
Blood glucose	8	12.5	(0.3 - 52.7)	6	16.7	(0.4 - 64.1)
Syphilis test (VDRL / RPR*)	8	0.0	(0 - 36.9)	6	0.0	(0 - 45.9)
Hemoglobin	8	12.5	(0.3 - 52.7)	6	0.0	(0 - 45.9)
Urinalysis	8	0.0	(0 - 36.9)	6	0.0	(0 - 45.9)
Antenatal care performed according to	8	0.0	(0 - 36.9)	6	0.0	(0 - 45.9)
standard						

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

#### 6.9 Delivery equipment

Basic and complete facilities were checked for the availability of equipment and drugs necessary for delivery care as defined by one of the monitoring indicators (7040). All equipment was observed by data collectors during the observation survey. Interviewers were instructed to observe equipment 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.

Basic and complete facilities should have the following for delivery: serum equipment (macrogotero & microgotero), sterile blankets for the newborn, neonatal nasogastric tube, sterile IV catheter No. 18, and metal clamp / umbilical tape. Complete facilities had stock of all required equipment at the second follow-up, but only 66.7% of basic facilities had the required equipment. The serum equipment, neonatal nasogastric tube, and clamps were missing at the basic facilities.

Table 6.22: Delivery equipment observed and functional, basic facilities

	Baseline				First F	ollow-Up		Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
Serum equipment (macrogotero & microgotero)	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
Sterile blankets for the newborn	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Neonatal nasogastric tube	11	45.5	(16.7 - 76.6)	7	57.1	(18.4 - 90.1)	12	75.0	(42.8 - 94.5)	
Sterile IV catheter No. 18	11	90.9	(58.7 - 99.8)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Metal clamp/umbilical tape	11	100.0	(71.5 - 100)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
All DEL equipment observed and functional	11	45.5	(16.7 - 76.6)	7	57.1	(18.4 - 90.1)	12	66.7	(34.9 - 90.1)	

<sup>&</sup>lt;sup>a</sup> Neonatal nasogastric tube K33 was captured at baseline

<sup>&</sup>lt;sup>b</sup> At the baseline, fetal checks were captured only if gestational age at the first visit was eligible



Table 6.23: Delivery equipment observed and functional, complete facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Serum equipment (macrogotero & microgotero)	6	100.0	(54.1 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Sterile blankets for the newborn	6	100.0	(54.1 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Neonatal nasogastric tube	6	50.0	(11.8 - 88.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Sterile IV catheter No. 18	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Metal clamp/umbilical tape	6	100.0	(54.1 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
All DEL equipment observed and functional	6	33.3	(4.3 - 77.7)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)

<sup>&</sup>lt;sup>a</sup> Neonatal nasogastric tube K33 was captured at baseline

#### 6.10 Delivery drugs

As mentioned in the previous section, specific equipment and drugs are necessary for delivery care as defined by one of the monitoring indicators (7040). The drugs included in this indicator can be found in Tables 6.24-6.25 below. Interviewers were instructed to observe the drugs and check any kardex or written documentation for stockout in the last three months. If the facility did not have 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.

No complete facilities and only 41.7% of basic facilities had continuous stock of the drugs in the last three months. The drug found least often at basic facilities is lidocaine without epinephrine (simple lidocaine).

Table 6.24: Delivery drugs, basic facilities

		Bas	seline		First F	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Ergonovine/ergometrine/oxytocin	11	45.5	(16.7 - 76.6)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Povidone-iodine	11	18.2	(2.3 - 51.8)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Insulin syringe	11	36.4	(10.9 - 69.2)	7	85.7	(42.1 - 99.6)	12	91.7	(61.5 - 99.8)	
Lidocaine without epinephrine (simple lidocaine)	11	27.3	(6 - 61)	7	100.0	(59 - 100)	12	75.0	(42.8 - 94.5)	
Hyoscine butylbromide/Butylscopolamine	11	54.5	(23.4 - 83.3)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
Ringer's lactate/Hartmann's/Saline solution	11	36.4	(10.9 - 69.2)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
Ophthalmic chloramphenicol drops/1% silver nitrate/oxytetracycline opthalmic	11	45.5	(16.7 - 76.6)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)	
Vitamin K/Phytonadione	11	27.3	(6 - 61)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)	
All drugs available on the day of the survey	11	9.1	(0.2 - 41.3)	7	85.7	(42.1 - 99.6)	12	75.0	(42.8 - 94.5)	
All drugs available on the day of the survey + last three months	11	9.1	(0.2 - 41.3)	7	28.6	(3.7 - 71)	12	41.7	(15.2 - 72.3)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table 6.25: Delivery drugs, complete facilities

		Ва	seline		First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Ergonovine/ergometrine/oxytocin	6	33.3	(4.3 - 77.7)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Povidone-iodine	6	16.7	(0.4 - 64.1)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Insulin syringe	6	33.3	(4.3 - 77.7)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Lidocaine without epinephrine (simple	6	50.0	(11.8 - 88.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
lidocaine)									
Hyoscine butylbromide/Butylscopolamine	6	33.3	(4.3 - 77.7)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Ringer's lactate/Hartmann's/Saline	6	16.7	(0.4 - 64.1)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
solution									
Ophthalmic chloramphenicol drops/1%	6	33.3	(4.3 - 77.7)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
silver nitrate/oxytetracycline opthalmic									
Vitamin K/Phytonadione	6	50.0	(11.8 - 88.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
All drugs available on the day of the	6	0.0	(0 - 45.9)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)
survey									
All drugs available on the day of the	6	0.0	(0 - 45.9)	7	28.6	(3.7 - 71)	2	0	(0 - 84.2)
survey + last three months									

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

### 6.11 Delivery composite monitoring indicator

As described previously, the delivery care monitoring indicator (7040) requires all equipment and drugs listed in sections 6.9 and 6.10 of this report. The tables below display the overall indicator values by facility type.

Table 6.26: Delivery composite indicator, basic facilities

		Ва	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All DEL equipment observed and functional	11	45.5	(16.7 - 76.6)	7	57.1	(18.4 - 90.1)	12	66.7	(34.9 - 90.1)
All drugs available on the day of the survey	11	9.1	(0.2 - 41.3)	7	85.7	(42.1 - 99.6)	12	75.0	(42.8 - 94.5)
All drugs available on the day of the survey + the last 3 months	11	9.1	(0.2 - 41.3)	7	28.6	(3.7 - 71)	12	41.7	(15.2 - 72.3)
DEL according to standard	11	9.1	(0.2 - 41.3)	7	14.3	(0.4 - 57.9)	12	33.3	(9.9 - 65.1)

 $<sup>^{\</sup>rm a}$  Three month stock data not available for all drugs at baseline and first follow-up



Table 6.27: Delivery composite indicator, complete facilities

		Ba	seline	First Follow-Up				Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
All DEL equipment observed and functional	6	33.3	(4.3 - 77.7)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)	
All drugs available on the day of the survey	6	0.0	(0 - 45.9)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)	
All drugs available on the day of the survey + the last 3 months	6	0.0	(0 - 45.9)	7	28.6	(3.7 - 71)	2	0	(0 - 84.2)	
DEL according to standard	6	0.0	(0 - 45.9)	7	28.6	(3.7 - 71)	2	0	(0 - 84.2)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

#### 6.12 Sociocultural adaption monitoring indicator

During the questionnaire, complete health facilities were asked questions related to the provision of socio-cultural services at delivery for a monitoring indicator (8870). The tables below display the percent of facilities in each round that reported adapting services to the sociocultural conditions of women at delivery. All facilities were asked this question, regardless of services provided regularly.

Table 6.28: Sociocultural adaption, complete facilities

		Bas	seline	First Follow-Up				Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
Facility adapts services to the sociocultural conditions of women at delivery	7	42.9	(9.9 - 81.6)	7	85.7	(42.1 - 99.6)	2	50	(1.3 - 98.7)	

#### 6.13 Cesarean section prevalence monitoring indicator

During the questionnaire component of the survey, representatives of basic and complete facilities were asked to enumerate the total number of deliveries and the total number of cesarean sections attended each year since 2012. The SMI monitoring indicator (4120) evaluates the prevalence of cesarean sections in complete facilities in the past two years where data is available. The baseline data in Table 6.31 is represented by the deliveries reported for 2012-2013, the first follow-up is represented by 2014-2015, and the second follow-up is represented by 2016-2017. The data used for this monitoring indicator is all reported during the questionnaire in the second follow-up evaluation. Data for the baseline is from 13 facilities, data for the first follow-up is from 14 facilities.



Table 6.29: Cesarean section prevalence monitoring indicator, complete facilities

Evaluation	Total # of C-sections	Total # of deliveries	C-section prevalence in past two years
Baseline	4573	14707	31.1%
First Follow-up	4559	17211	26.5%
Second Follow-up	3589	15878	22.6%

<sup>&</sup>lt;sup>a</sup> Data collected where available from 13 facilities for the baseline time period and 14 facilities for the first and second follow-up time periods.

## 6.14 Medical record review: Active management of third stage of labor performance indicator

Doctors and nurses systematically selected records of uncomplicated delivers and immediate postpartum care in the last two years from basic and complete facilities. During the review of uncomplicated deliveries, interviewers captured data on active management of the third stage of labor. According to the performance indicator on the active management of the third stage of labor (4090), women should be administered oxytocin or another uterotonic. As shown in Tables 6.30 and 6.31, 97.2% of women were administered the drug, with the vast majority of women receiving oxytocin rather than other uterotonic.

Table 6.30: Active management of third stage of labor, medical records from basic facilities

		Bas	seline		First Fo	ollow-Up	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI	
Oxytocin administered	81	72.8	(61.8 - 82.1)	91	76.9	(66.9 - 85.1)	182	97.3	(93.7 - 99.1)	
Otheruterotonicadministered	81	2.5	(0.3 - 8.6)	91	1.1	(0 - 6)	182	1.1	(0.1 - 3.9)	
Active management of third stage of labor according to standard	81	72.8	(61.8 - 82.1)	91	76.9	(66.9 - 85.1)	182	97.3	(93.7 - 99.1)	

Table 6.31: Active management of third stage of labor, medical records from complete facilities

		Base	line	First Follow-Up				Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
Oxytocin administered	121	71.9	(63 - 79.7)	245	85.3	(80.2 - 89.5)	42	97.6	(87.4 - 99.9)	
Otheruterotonicadministered	121	0.8	(0 - 4.5)	245	4.9	(2.6 - 8.4)	42	0.0	(0 - 8.4)	
Active management of third stage of labor according to standard	121	71.9	(63 - 79.7)	245	86.1	(81.2 - 90.2)	42	97.6	(87.4 - 99.9)	



## 6.15 Medical record review: Immediate maternal postpartum care performance indicator

Doctors and nurses systematically selected and reviewed immediate postpartum records of uncomplicated deliveries in the last two years from basic and complete facilities. These records were evaluated for quality postpartum care for women, as defined by the performance institutional postpartum indicator (4050). The indicator criteria include:

- 1. Four checks during the first hour after delivery for:
- Pulse/ heart rate
- Blood pressure
- Temperature
- · Respiratory rate
- 2. Two checks during the second hour after delivery for:
- Pulse/ heart rate
- Blood pressure
- Temperature
- · Respiratory rate
- 3. At least one check at discharge for:
- Pulse/ heart rate
- Blood pressure
- Temperature
- Respiratory rate

Over 90% of all medical records at basic and complete facilities checked for blood pressure, temperature, heart rate/pulse, and respiratory rate at discharge. However, more records from complete facilities check for these vitals during the first two hours than basic facilities. Around 40% of the records from basic facilities checked vitals four times during the first hour and two time during the second hour as compared to 75% of records from complete facilities.

Table 6.32: Immediate maternal postpartum care, medical records from basic facilities

		Baseline			First Fo	ollow-Up	9	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
Checked four times in the first hour & twi	ce in th	e secon	d hour:							
Blood pressure	66	0.0	(0 - 5.4)	70	0.0	(0 - 5.1)	169	45.6	(37.9 - 53.4)	
Temperature	66	0.0	(0 - 5.4)	70	0.0	(0 - 5.1)	169	43.8	(36.2 - 51.6)	
Heart rate / pulse	66	0.0	(0 - 5.4)	70	0.0	(0 - 5.1)	169	43.8	(36.2 - 51.6)	
Respiratory rate	66	0.0	(0 - 5.4)	70	0.0	(0 - 5.1)	169	43.8	(36.2 - 51.6)	
All checks at discharge	66	59.1	(46.3 - 71)	70	62.9	(50.5 - 74.1)	169	95.9	(91.7 - 98.3)	
Immediate maternal PPC to standard	66	0.0	(0 - 5.4)	70	0.0	(0 - 5.1)	169	43.8	(36.2 - 51.6)	

<sup>&</sup>lt;sup>a</sup> Heart rate not captured as an alternative at baseline and first follow-up



Table 6.33: Immediate maternal postpartum care, medical records from complete facilities

		Bas	eline	First Follow-Up				Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
Checked four times in the first hour & twi	ice in the	second	hour:							
Blood pressure	141	0.0	(0 - 2.6)	235	0.4	(0 - 2.3)	38	68.4	(51.3 - 82.5)	
Temperature	141	0.7	(0 - 3.9)	235	0.4	(0 - 2.3)	38	68.4	(51.3 - 82.5)	
Heart rate / pulse	141	0.7	(0 - 3.9)	235	0.4	(0 - 2.3)	38	68.4	(51.3 - 82.5)	
Respiratory rate	141	0.0	(0 - 2.6)	235	0.4	(0 - 2.3)	38	68.4	(51.3 - 82.5)	
All checks at discharge	141	58.9	(50.3 - 67.1)	235	73.6	(67.5 - 79.1)	38	94.7	(82.3 - 99.4)	
Immediate maternal PPC to standard	141	0.0	(0 - 2.6)	235	0.4	(0 - 2.3)	38	65.8	(48.6 - 80.4)	

<sup>&</sup>lt;sup>a</sup> Heart rate not captured as an alternative at baseline and first follow-up

## 6.16 Medical record review: Immediate neonatal postpartum care monitoring indicator

Doctors and nurses systematically selected and reviewed immediate postpartum records of uncomplicated deliveries in the last two years from basic and complete facilities. These records were evaluated for quality immediate neonatal care, as defined by the monitoring indicator for postnatal care (4103). The indicator criteria include:

- 1. Application of the following:
- Vitamin K
- Application of prophylaxis with oxytetracycline opthalmic/chloramphenicol
- Curing the umbilical cord with water and chlorhexidine
- BCG vaccine
- 2. Checking the following vitals:
- Evaluation for the presence of malformations
- Skin evaluation
- APGAR score (at 1 or 5 minutes)
- Pulse/heart rate
- Respiratory rate
- Weight
- Height
- Head circumference

Only 28.4% of medical records from basic facilities and 44.7% of records from complete facilities met these requirements. The BCG vaccine and curing the umbilical cord were the two components checked and administered least often in both basic and complete levels.



Table 6.34: Immediate neonate postpartum care, medical records from basic facilities

		Bas	seline		First Fo	ollow-Up	9	Second F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Vitamin K	55	74.5	(61 - 85.3)	75	76.0	(64.7 - 85.1)	152	96.7	(92.5 - 98.9)
Application of prophylaxis with oxytetracycline ophthalmic/chloramphenicol	55	80.0	(67 - 89.6)	75	77.3	(66.2 - 86.2)	152	96.7	(92.5 - 98.9)
Curing the umbilical cord with water and chlorhexidine	55	54.5	(40.6 - 68)	75	40.0	(28.9 - 52)	152	50.7	(42.4 - 58.9)
Evaluation for the presence of malformations	55	72.7	(59 - 83.9)	75	76.0	(64.7 - 85.1)	152	92.8	(87.4 - 96.3)
Skin evaluation	55	80.0	(67 - 89.6)	75	81.3	(70.7 - 89.4)	152	95.4	(90.7 - 98.1)
BCG vaccine	55	54.5	(40.6 - 68)	75	22.7	(13.8 - 33.8)	152	42.8	(34.8 - 51)
APGAR score (1 or 5 minutes)	55	83.6	(71.2 - 92.2)	75	78.7	(67.7 - 87.3)	152	96.7	(92.5 - 98.9)
Pulse/heart rate	55	85.5	(73.3 - 93.5)	75	74.7	(63.3 - 84)	152	98.0	(94.3 - 99.6)
Respiratory rate	55	83.6	(71.2 - 92.2)	75	72.0	(60.4 - 81.8)	152	98.0	(94.3 - 99.6)
Weight	55	94.5	(84.9 - 98.9)	75	85.3	(75.3 - 92.4)	152	99.3	(96.4 - 100)
Height	55	89.1	(77.8 - 95.9)	75	85.3	(75.3 - 92.4)	152	98.0	(94.3 - 99.6)
Head circumference	55	85.5	(73.3 - 93.5)	75	76.0	(64.7 - 85.1)	152	95.4	(90.7 - 98.1)
Immediate neonate PPC to standard	55	36.4	(23.8 - 50.4)	75	9.3	(3.8 - 18.3)	152	28.9	(21.9 - 36.8)

Table 6.35: Immediate neonate postpartum care, medical records from complete facilities

		Bas	seline		First Fo	llow-Up		Second F	ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Vitamin K	85	72.9	(62.2 - 82)	219	88.1	(83.1 - 92.1)	37	100.0	(90.5 - 100)
Application of prophylaxis with oxytetracycline ophthalmic/chloramphenicol	85	76.5	(66 - 85)	219	89.0	(84.1 - 92.9)	37	100.0	(90.5 - 100)
Curing the umbilical cord with water and chlorhexidine	85	22.4	(14 - 32.7)	219	47.5	(40.7 - 54.3)	37	48.6	(31.9 - 65.6)
Evaluation for the presence of malformations	85	49.4	(38.4 - 60.5)	219	74.4	(68.1 - 80.1)	37	94.6	(81.8 - 99.3)
Skinevaluation	85	72.9	(62.2 - 82)	219	79.5	(73.5 - 84.6)	37	100.0	(90.5 - 100)
BCG vaccine	85	14.1	(7.5 - 23.4)	219	31.1	(25 - 37.6)	37	45.9	(29.5 - 63.1)
APGAR score (1 or 5 minutes)	85	74.1	(63.5 - 83)	219	92.7	(88.4 - 95.8)	37	97.3	(85.8 - 99.9)
Pulse/heart rate	85	78.8	(68.6 - 86.9)	219	91.8	(87.3 - 95.1)	37	97.3	(85.8 - 99.9)
Respiratory rate	85	75.3	(64.7 - 84)	219	91.8	(87.3 - 95.1)	37	94.6	(81.8 - 99.3)
Weight	85	85.9	(76.6 - 92.5)	219	99.1	(96.7 - 99.9)	37	100.0	(90.5 - 100)
Height	85	85.9	(76.6 - 92.5)	219	98.6	(96 - 99.7)	37	100.0	(90.5 - 100)
Head circumference	85	80.0	(69.9 - 87.9)	219	96.8	(93.5 - 98.7)	37	94.6	(81.8 - 99.3)
Immediate neonate PPC to standard	85	4.7	(1.3 - 11.6)	219	21.5	(16.2 - 27.5)	37	40.5	(24.8 - 57.9)



### 7 Chapter 7: Maternal and neonatal health: complications

### 7.1 Emergency obstetric and neonatal care service provision

The chapter summarizes key indicators and information related to the management of maternal and neonatal complications at basic and complete facilities. Tables 7.1 and 7.2 display the setting of the emergency care provision in these facilities, all of which offer emergency care in a private room with auditory and visual privacy.

Table 7.1: Emergency care provision, second follow-up evaluation, basic facilities

		Ва	seline		First Fo	ollow-Up	S	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI		
Visual and auditory privacy	9	88.9	(51.8 - 99.7)	7	100	(59 - 100)	12	100	(73.5 - 100)		
Visual privacy only	9	11.1	(0.3 - 48.2)	7	0	(0 - 41)	12	0	(0 - 26.5)		
Non-private area	9	0.0	(0 - 33.6)	7	0	(0 - 41)	12	0	(0 - 26.5)		
Other	9	0.0	(0 - 33.6)	7	0	(0 - 41)	12	0	(0 - 26.5)		
Do not provide service	9	0.0	(0 - 33.6)	7	0	(0 - 41)	12	0	(0 - 26.5)		

<sup>&</sup>lt;sup>a</sup> Missing emergency room data from two facilities at the baseline

Table 7.2: Emergency care provision, second follow-up evaluation, complete facilities

		Ва	seline		First Fo	ollow-Up	S	Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI		
Visual and auditory privacy	4	100	(39.8 - 100)	7	100	(59 - 100)	2	100	(15.8 - 100)		
Visual privacy only	4	0	(0 - 60.2)	7	0	(0 - 41)	2	0	(0 - 84.2)		
Non-private area	4	0	(0 - 60.2)	7	0	(0 - 41)	2	0	(0 - 84.2)		
Other	4	0	(0 - 60.2)	7	0	(0 - 41)	2	0	(0 - 84.2)		
Do not provide service	4	0	(0 - 60.2)	7	0	(0 - 41)	2	0	(0 - 84.2)		

<sup>&</sup>lt;sup>a</sup> Missing emergency room data from four facilities at the baseline

#### 7.2 Emergency equipment

Specific equipment and drugs are necessary for emergency care in basic and complete facilities, as defined by the monitoring indicator for emergency care (7030). The equipment included in this indicator can be found in Tables 7.3 and 7.4 below. All equipment was observed by data collectors during the observation survey. Interviewers were instructed to observe and test for functionality (if possible) and,



unless otherwise noted, the facility only needs to have at least one functioning piece of equipment on the day of the survey. The drugs included in this indicator can be found in the next section.

The equipment necessary for each facility level is listed in the tables below. The stock of equipment for emergencies has increased greatly since the baseline, especially for blood pressure apparatus, stethoscopes, oxygen tanks, and laryngoscopes for basic facilities. Overall, 41.7% of basic facilities and 100% of complete facilities at the second follow-up had all necessary equipment.

Table 7.3: EMG equipment observed and functional, basic facilities

		Ва	seline		First F	ollow-Up		Second I	-ollow-Up
	N	%	CI	N	%	CI	N	%	CI
Blood pressure apparatus	9	44.4	(13.7 - 78.8)	7	85.7	(42.1 - 99.6)	12	100.0	(73.5 - 100)
Stethoscope	9	55.6	(21.2 - 86.3)	7	85.7	(42.1 - 99.6)	12	100.0	(73.5 - 100)
Portable doppler/Pinard stethoscope	7	57.1	(18.4 - 90.1)	7	85.7	(42.1 - 99.6)	12	91.7	(61.5 - 99.8)
Autoclave/heat sterilizer	9	88.9	(51.8 - 99.7)	7	71.4	(29 - 96.3)	12	91.7	(61.5 - 99.8)
Oxygen tank/oxygen intake	9	44.4	(13.7 - 78.8)	7	85.7	(42.1 - 99.6)	12	91.7	(61.5 - 99.8)
Resuscitation bag for adults	9	55.6	(21.2 - 86.3)	7	71.4	(29 - 96.3)	12	75.0	(42.8 - 94.5)
Resuscitation bag for neonates	9	55.6	(21.2 - 86.3)	7	71.4	(29 - 96.3)	12	83.3	(51.6 - 97.9)
Laryngoscope	9	44.4	(13.7 - 78.8)	7	71.4	(29 - 96.3)	12	91.7	(61.5 - 99.8)
Equipment for AMEU/curettage kit	9	11.1	(0.3 - 48.2)	7	28.6	(3.7 - 71)	12	91.7	(61.5 - 99.8)
All EMG equipment observed and functional	9	0.0	(0 - 33.6)	7	28.6	(3.7 - 71)	12	41.7	(15.2 - 72.3)

<sup>&</sup>lt;sup>a</sup> Two facilities at the baseline did not have a functional portable doppler and were not asked about pinard stethoscope. These facilities were excluded from the portable doppler/pinard component of the indicator

Table 7.4: EMG equipment observed and functional, complete facilities

		Ва	aseline		First F	ollow-Up	S	Second	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
Blood pressure apparatus	4	25	(0.6 - 80.6)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Portable doppler/Pinard stethoscope	4	100	(39.8 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Autoclave/heat sterilizer	4	100	(39.8 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Oxygen tank/oxygen intake	4	100	(39.8 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Resuscitation bag for adults	4	50	(6.8 - 93.2)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Resuscitation bag for neonates	4	100	(39.8 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Laryngoscope	4	100	(39.8 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Equipment for AMEU/curettage kit	4	75	(19.4 - 99.4)	7	57.1	(18.4 - 90.1)	2	100	(15.8 - 100)
Neonatal/pediatric stethoscope	4	75	(19.4 - 99.4)	6	66.7	(22.3 - 95.7)	2	100	(15.8 - 100)
Equipment for anesthesia	4	100	(39.8 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
Kit for caesarean sections	4	100	(39.8 - 100)	7	85.7	(42.1 - 99.6)	2	100	(15.8 - 100)
All EMG equipment observed and functional	4	0	(0 - 60.2)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)

<sup>&</sup>lt;sup>a</sup> One facility at the first follow-up did not have a functional pediatric stethoscope and was not asked about a neonatal stethoscope. This facility was excluded from the pediatric/neonatal stethoscope component of the indicator



#### 7.3 Emergency drugs

As mentioned in the previous section, specific equipment and drugs are necessary for emergency care as defined by the monitoring indicator for emergency care (7030). The drugs included in this indicator are listed below. Interviewers were instructed to observe the drugs and check any kardex or written documentation for stockout in the last three months. If the facility did not have documentation at second follow-up regarding stock in the previous three months, the facility was considered to be stocked out of the drug and did not pass that portion of the indicator. No complete facilities and only 25% of basic facilities had continuous availability of all drugs for the last three months.

Table 7.5: EMG drugs, basic facilities

	Baseline				First Fo	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Ergonovine/ergometrine/oxytocin	9	55.6	(21.2 - 86.3)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Dexamethasone/betamethasone	9	11.1	(0.3 - 48.2)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)
Penicillin crystalline/ampicillin/amoxicillin	9	66.7	(29.9 - 92.5)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Gentamicin	9	0.0	(0 - 33.6)	7	100.0	(59 - 100)	12	83.3	(51.6 - 97.9)
Magnesium sulfate	9	22.2	(2.8 - 60)	7	100.0	(59 - 100)	12	100.0	(73.5 - 100)
Hydralazine	9	33.3	(7.5 - 70.1)	7	100.0	(59 - 100)	12	91.7	(61.5 - 99.8)
All drugs available on the day of the	9	0.0	(0 - 33.6)	7	100.0	(59 - 100)	12	75.0	(42.8 - 94.5)
survey									
All drugs available on the day of the survey + last three months	9	0.0	(0 - 33.6)	7	14.3	(0.4 - 57.9)	12	25.0	(5.5 - 57.2)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table 7.6: EMG drugs, complete facilities

	Baseline			First Follow-Up				Second	Follow-Up
	N	%	CI	N	%	CI	N	%	CI
Ergonovine/ergometrine/oxytocin	4	50	(6.8 - 93.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Dexamethasone/betamethasone	4	50	(6.8 - 93.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Penicillin crystalline/ampicillin/amoxicillin	4	50	(6.8 - 93.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Magnesium sulfate	4	75	(19.4 - 99.4)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
Hydralazine	4	25	(0.6 - 80.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Amikacin sulfate	4	25	(0.6 - 80.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Ceftriaxone	4	25	(0.6 - 80.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Chloramphenicol/metronidazole	4	25	(0.6 - 80.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Nifedipine	4	50	(6.8 - 93.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Furosemide	4	50	(6.8 - 93.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Diazepam/Midazolam	4	25	(0.6 - 80.6)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Sevoflurane/propofol	4	0	(0 - 60.2)	7	100.0	(59 - 100)	2	100	(15.8 - 100)
Succinylcholine chloride	4	25	(0.6 - 80.6)	7	71.4	(29 - 96.3)	2	100	(15.8 - 100)
(suxamethonium)/vecuronium									
All drugs available on the day of the	4	0	(0 - 60.2)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)
survey All drugs available on the day of the survey + last three months	4	0	(0 - 60.2)	7	42.9	(9.9 - 81.6)	2	0	(0 - 84.2)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

### 7.4 Emergency care monitoring indicator

As described previously, the emergency care monitoring indicator (7030) requires all equipment and drugs listed in the previous sections of this report. The tables below display the overall indicator by facility type. Each facility needed equipment on the day of the survey and no stock-out of drugs in the last three months.

Table 7.7: EMG composite indicator, basic facilities

		Ва	seline	First Follow-Up			Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
All EMG equipment observed and functional	9	0	(0 - 33.6)	7	28.6	(3.7 - 71)	12	41.7	(15.2 - 72.3)
All drugs available on the day of the survey	9	0	(0 - 33.6)	7	100.0	(59 - 100)	12	75.0	(42.8 - 94.5)
All drugs available on the day of the survey + the last 3 months	9	0	(0 - 33.6)	7	14.3	(0.4 - 57.9)	12	25.0	(5.5 - 57.2)
EMG according to standard	9	0	(0 - 33.6)	7	14.3	(0.4 - 57.9)	12	16.7	(2.1 - 48.4)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table 7.8: EMG composite indicator, complete facilities

		Baseline			First Follow-Up			Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
All EMG equipment observed and functional	4	0	(0 - 60.2)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)	
All drugs available on the day of the survey	4	0	(0 - 60.2)	7	42.9	(9.9 - 81.6)	2	100	(15.8 - 100)	
All drugs available on the day of the survey + the last 3 months	4	0	(0 - 60.2)	7	42.9	(9.9 - 81.6)	2	0	(0 - 84.2)	
EMG according to standard	4	0	(0 - 60.2)	7	14.3	(0.4 - 57.9)	2	0	(0 - 84.2)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

#### 7.5 Uterine balloon availability

During the questionnaire, interviewers asked the facility about their use of and training on uterine balloons. This information was only captured at the second follow-up. As shown in the table below, 75% of basic facilities, and 100% of complete facilities use a uterine tamponade balloon for obstetric hemorrhage. If the facility reported using a uterine tamponade balloon, they were asked all of the following questions displayed in the table about type of balloon, disposable balloons, and training.

The majority of facilities use a kit prepared from available materials rather than a commercially assembled kit. The majority of facilities also reported that their staff is trained in tamponade use and assembly.



Table 7.9: Uterine tamponade balloon for hemorrhage management, second follow-up evaluation

		Basic F	acilities	Complete Facilities			
	N	%	CI	N	%	CI	
Facility uses tamponade to managed obstetric hemorrhage	12	75.0	(42.8 - 94.5)	2	100	(15.8 - 100)	
Туре							
Bakri	9	22.2	(2.8 - 60)	2	0	(0 - 84.2)	
Foley catheter	9	11.1	(0.3 - 48.2)	2	0	(0 - 84.2)	
Condom-based balloon	9	33.3	(7.5 - 70.1)	2	50	(1.3 - 98.7)	
Do not know	9	0.0	(0 - 33.6)	2	0	(0 - 84.2)	
Assembly kit							
Facility has tamponade kit	9	66.7	(29.9 - 92.5)	2	50	(1.3 - 98.7)	
Kit commercially assembled	6	0.0	(0 - 45.9)	1	0	(0 - 97.5)	
Kit prepared from available materials	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)	
Staff training							
Staff trained in tamponade use	12	91.7	(61.5 - 99.8)	2	100	(15.8 - 100)	
Staff trained in tamponade assembly	12	83.3	(51.6 - 97.9)	2	100	(15.8 - 100)	

<sup>&</sup>lt;sup>a</sup> Uterine balloon data not captured at baseline and first follow-up evaluations.

#### 7.6 Distribution of obstetric and neonatal complications

Doctors and nurses evaluated records of obstetric complications (sepsis, hemorrhage, pre-eclampsia, eclampsia) and neonatal complications (sepsis, low birth weight, asphyxia, prematurity) from basic and complete facilities. These records were used to evaluate quality of care, as defined by the obstetric complications performance indicator (4080) and the neonatal complications performance indicator (4070). The tables below display the amount of data collected for each type of complication at basic and complete facilities.

Table 7.10: Distribution of obstetric complications, basic facilities

Baseline	Second Follow-up
1	4
5	53
5	120
0	6
	1 5

69



Table 7.11: Distribution of obstetric complications, complete facilities

	Baseline	Second Follow-up
Sepsis	6	2
Hemorrhage	60	39
Pre-eclampsia	32	30
Eclampsia	3	6

Table 7.12: Distribution of neonatal complications, basic facilities

	Baseline	Second Follow-up
Sepsis	21	42
Low birth weight	11	52
Asphyxia	18	28
Prematurity	2	20

Table 7.13: Distribution of neonatal complications, complete facilities

	Baseline	Second Follow-up
Sepsis	69	44
Low birth weight	20	27
Asphyxia	40	25
Prematurity	31	21

## 7.7 Management of obstetric complications in previous two years (sepsis, hemorrhage, pre-eclampsia, and eclampsia)

#### 7.7.1 Sepsis (obstetric)

There were four records from basic and two records from complete facilities of women with sepsis at the second follow-up. The following criteria must be met in the medical record for sepsis:

- 1. The woman must have the following vital signs checked:
- Pulse/ heart rate
- Blood pressure
- Temperature
- 2. The woman must have received the following laboratory tests (if record is from a complete facility):
- Blood biometry (hemoglobin + hematocrit + platelets + leukocyte)
- Blood type



- · Rh factor
- 3. The woman was administered antibiotics
- 4. The woman must also have appropriate care for the specific causes of sepsis listed below. For basic facilities, if one of the listed procedures was not performed, the medical record still met the standard of care if the woman was referred to a complete facility:
- If abortion: AMEU/hysterectomy
- If uterine perforation: surgical repair/hysterectomy
- If pelvic abscess: laparotomy/drainage/hysterectomy/surgical repair
- If postpartum or post-cesarean endometritis: antibiotics
- If retained products: curettage/laparotomy/hysterectomy
- If fever: antibiotics

Tables 7.14 and 7.15 display sepsis management as indicated in obstetric medical records.

Table 7.14: Maternal sepsis management, basic facilities

	Baseline			Second Follow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	1	100	(2.5 - 100)	4	100	(39.8 - 100)	
Pulse / heart rate	1	100	(2.5 - 100)	4	100	(39.8 - 100)	
Blood pressure	1	100	(2.5 - 100)	4	100	(39.8 - 100)	
Temperature	1	100	(2.5 - 100)	4	100	(39.8 - 100)	
Antibiotics administered	1	100	(2.5 - 100)	4	25	(0.6 - 80.6)	
Causes treated appropriately	-	-	-	4	100	(39.8 - 100)	
Abortion	-	-	-	1	100	(2.5 - 100)	
Uterine perforation	-	-	-	-	-	-	
Abscess	-	-	-	-	-	-	
Endometritis	-	-	-	-	-	-	
Fever	-	-	-	4	100	(39.8 - 100)	
Retained placenta	-	-	-	2	100	(15.8 - 100)	
Obstetric sepsis managed according to	1	100	(2.5 - 100)	4	25	(0.6 - 80.6)	
SMI standard							



Table 7.15: Maternal sepsis management, complete facilities

		Bas	seline	S	econd	Follow-Up
	N	%	CI	N	%	CI
Vital signs checked	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)
Pulse / heart rate	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)
Blood pressure	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)
Temperature	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)
Lab tests	6	83.3	(35.9 - 99.6)	1	100	(2.5 - 100)
Blood biometry	6	83.3	(35.9 - 99.6)	1	100	(2.5 - 100)
Blood type	6	83.3	(35.9 - 99.6)	1	100	(2.5 - 100)
Rh factor	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)
Antibiotics administered	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)
Causes treated appropriately	5	80.0	(28.4 - 99.5)	1	100	(2.5 - 100)
Abortion	1	0.0	(0 - 97.5)	-	-	-
Uterine perforation	-	-	-	-	-	-
Abscess	-	-	-	-	-	-
Endometritis	-	-	-	-	-	-
Fever	1	100.0	(2.5 - 100)	1	100	(2.5 - 100)
Retained placenta	5	100.0	(47.8 - 100)	-	-	-
Obstetric sepsis managed according to SMI standard	6	66.7	(22.3 - 95.7)	1	100	(2.5 - 100)

#### 7.7.2 Hemorrhage

52 records in basic facilities and 39 records in complete facilities of women with hemorrhage at the second follow-up. The following criteria must be met in the medical record for hemorrhage:

- 1. The woman must have the following vital signs checked:
- Pulse/ heart rate
- Blood pressure
- 2. The woman must have the following laboratory tests (if record is from a complete facility):
- Hematocrit
- Hemoglobin
- Platelet count
- Rh Factor
- Blood group
- Prothrombin
- Partial thromboplastin



- 3. The woman must be administered at least one of the following medications (if record is from a basic facility):
- Ringer's lactate / Hartmann's solution
- 4. The woman must also have appropriate care for the specific causes of hemorrhage listed below. For basic facilities, if one of the listed procedures was not performed, the medical record still met the standard of care if the woman was referred to a complete facility:
- If incomplete complicated abortion with hemorrhage or hemorrhage after abortion: AMEU/curettage
- If ectopic pregnancy/broken ectopic pregnancy: laparotomy/hysterectomy/surgical repair/caesarean section/dearterialization
- If placenta previa/placenta detachement: laparotomy/hysterectomy/surgical repair/caesarean section/dearterialization
- If uterine rupture: laparotomy/hysterectomy/surgical repair/uterine artery impingement/caesarean section
- If uterine atony: uterotonic + bimanual compression/compression sutures/uterine massage/hydrostatic balloon/Bakri balloon/uterine artery impingement/uterine tamponade/hysterectomy
- If uterine inversion: uterotonic + reposition/restoration of the uterus under sedation/anesthesia with surgical or non-surgical techniques
- If retained placenta: manual extraction/hysterectomy
- If placental remains/membranes: uterotonics + manual extraction/curettage

Tables 7.16 and 7.17 display hemorrhage management as indicated in obstetric medical records.

Table 7.16: Maternal hemorrhage management, basic facilities

	Baseline				Second Follow-Up			
	N	%	CI	N	%	CI		
Vital signs checked	5	100	(47.8 - 100)	45	100.0	(92.1 - 100)		
Pulse / heart rate	5	100	(47.8 - 100)	45	100.0	(92.1 - 100)		
Blood pressure	5	100	(47.8 - 100)	45	100.0	(92.1 - 100)		
Ringer's lactate / Hartmann's solution administered	5	80	(28.4 - 99.5)	45	75.6	(60.5 - 87.1)		
Causes treated appropriately	4	25	(0.6 - 80.6)	34	64.7	(46.5 - 80.3)		
Hemorrhage managed according to SMI standard	5	40	(5.3 - 85.3)	45	53.3	(37.9 - 68.3)		



Table 7.17: Maternal hemorrhage management, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	60	98.3	(91.1 - 100)	33	100.0	(89.4 - 100)	
Pulse / heart rate	60	98.3	(91.1 - 100)	33	100.0	(89.4 - 100)	
Blood pressure	60	100.0	(94 - 100)	33	100.0	(89.4 - 100)	
Lab tests	60	70.0	(56.8 - 81.2)	33	75.8	(57.7 - 88.9)	
Hematocrit	60	85.0	(73.4 - 92.9)	33	93.9	(79.8 - 99.3)	
Hemoglobin	60	86.7	(75.4 - 94.1)	33	90.9	(75.7 - 98.1)	
Platelet count	60	90.0	(79.5 - 96.2)	33	97.0	(84.2 - 99.9)	
Prothrombin	60	75.0	(62.1 - 85.3)	33	78.8	(61.1 - 91)	
Partial thromboplastin	60	75.0	(62.1 - 85.3)	33	78.8	(61.1 - 91)	
Blood type	60	86.7	(75.4 - 94.1)	33	87.9	(71.8 - 96.6)	
Rh factor	60	86.7	(75.4 - 94.1)	33	87.9	(71.8 - 96.6)	
Causes treated appropriately	55	34.5	(22.2 - 48.6)	29	62.1	(42.3 - 79.3)	
Hemorrhage managed according to SMI	60	21.7	(12.1 - 34.2)	33	48.5	(30.8 - 66.5)	
standard							

The majority of women at basic facilities experienced hemorrhage due to an abortion or retained placenta/placental remains at the second follow-up evaluation. The majority of women at complete facilities experienced hemorrhage due to retention of placental remains. Overall, the management of these specific causes of hemorrhage has improved from baseline to second follow-up.

Tables 7.18 and 7.19 display hemorrhage management as indicated in obstetric medical records.

Table 7.18: Maternal hemorrhage management, basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Causes treated appropriately	4	25.0	(0.6 - 80.6)	34	64.7	(46.5 - 80.3)	
Abortion	3	66.7	(9.4 - 99.2)	12	83.3	(51.6 - 97.9)	
Ectopic/broken ectopic pregnancy	-	-	-	-	-	-	
Placenta previa	-	-	-	1	100.0	(2.5 - 100)	
Uterine rupture	-	-	-	1	0.0	(0 - 97.5)	
Uterine atony	-	-	-	7	71.4	(29 - 96.3)	
Uterine inversion	-	-	-	-	-	-	
Retained placenta	-	-	-	6	100.0	(54.1 - 100)	
Retention of placental remains	2	0.0	(0 - 84.2)	15	46.7	(21.3 - 73.4)	



Table 7.19: Maternal hemorrhage management, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Causes treated appropriately	55	34.5	(22.2 - 48.6)	29	62.1	(42.3 - 79.3)	
Abortion	15	93.3	(68.1 - 99.8)	1	100.0	(2.5 - 100)	
Ectopic/broken ectopic pregnancy	-	-	-	4	100.0	(39.8 - 100)	
Placenta previa	7	71.4	(29 - 96.3)	2	50.0	(1.3 - 98.7)	
Uterine rupture	1	100.0	(2.5 - 100)	-	-	-	
Uterine atony	6	50.0	(11.8 - 88.2)	3	66.7	(9.4 - 99.2)	
Uterine inversion	-	-	-	-	-	-	
Retained placenta	20	15.0	(3.2 - 37.9)	3	66.7	(9.4 - 99.2)	
Retention of placental remains	26	34.6	(17.2 - 55.7)	17	47.1	(23 - 72.2)	

#### 7.7.3 Pre-eclampsia

There were 120 records in basic facilities and 30 records in complete facilities of women with severe pre-eclampsia at the second follow-up. The following criteria must be met in the medical record for severe pre-eclampsia:

- 1. The woman must have the following vital signs checked:
- Blood pressure
- Pulse / heart rate (if record is from a complete facility)
- Respiratory rate (if record is from a complete facility)
- Patellar reflex (if record is from a complete facility)
- 2. The woman must have the following laboratory tests:
- Urine protein
- Platelet count (if record is from a complete facility)
- Aspartate aminotransferase/ Glutamic-oxalacetic transaminase (GOT) (if record is from a complete facility)
- Alanine transaminase/Glutamic-pyruvic transaminase (GPT) (if record is from a complete facility)
- Lactate dehydrogenase (if record is from a complete facility)
- 3. The woman was administered one of the following medications:
- Magnesium sulfate
- Hydralazine/nifedipine (if systolic blood pressure >=160 or diastolic blood pressure >=110)
- Dexamethasone/betamethasone (if gestational age >=24 & <=35 weeks) (if record is from a complete facility)
- 4. Woman was referred to a complete facility (if record is from a basic facility)

Tables 7.20 and 7.21 display pre-eclampsia management as indicated in obstetric medical records.



Table 7.20: Maternal pre-eclampsia management, basic facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	5	100	(47.8 - 100)	107	100.0	(96.6 - 100)	
Blood pressure	5	100	(47.8 - 100)	107	100.0	(96.6 - 100)	
Lab tests	5	40	(5.3 - 85.3)	107	21.5	(14.1 - 30.5)	
Urine protein	5	40	(5.3 - 85.3)	107	21.5	(14.1 - 30.5)	
All appropriate medications administered	5	40	(5.3 - 85.3)	107	19.6	(12.6 - 28.4)	
Magnesium sulfate	5	40	(5.3 - 85.3)	107	21.5	(14.1 - 30.5)	
Hydralazine / nifedipine (if systolic bp	1	100	(2.5 - 100)	23	73.9	(51.6 - 89.8)	
>=160 or diastolic blood pressure >=110)							
Referred to complete facility	5	80	(28.4 - 99.5)	107	86.9	(79 - 92.7)	
Pre-eclampsia managed according to SMI standard	5	20	(0.5 - 71.6)	107	5.6	(2.1 - 11.8)	

Table 7.21: Maternal pre-eclampsia management, complete facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Vital signs checked	32	68.8	(50 - 83.9)	26	73.1	(52.2 - 88.4)		
Pulse / heart rate	32	100.0	(89.1 - 100)	26	100.0	(86.8 - 100)		
Blood pressure	32	100.0	(89.1 - 100)	26	100.0	(86.8 - 100)		
Respiratory rate	32	100.0	(89.1 - 100)	26	100.0	(86.8 - 100)		
Patellar reflex	32	68.8	(50 - 83.9)	26	73.1	(52.2 - 88.4)		
Lab tests	32	12.5	(3.5 - 29)	26	46.2	(26.6 - 66.6)		
Urine protein	32	53.1	(34.7 - 70.9)	26	57.7	(36.9 - 76.6)		
Platelet count	32	87.5	(71 - 96.5)	26	92.3	(74.9 - 99.1)		
Aspartate aminotransferase/Glutamic	32	37.5	(21.1 - 56.3)	26	57.7	(36.9 - 76.6)		
Transaminease oxalacetic (GOT)								
Alanine transaminase /	32	37.5	(21.1 - 56.3)	26	57.7	(36.9 - 76.6)		
glutamic-pyruvic transaminase								
Lactate dehydrogenase	32	46.9	(29.1 - 65.3)	26	57.7	(36.9 - 76.6)		
All appropriate medications administered	32	28.1	(13.7 - 46.7)	26	42.3	(23.4 - 63.1)		
Magnesium sulfate	32	31.2	(16.1 - 50)	26	61.5	(40.6 - 79.8)		
Hydralazine / nifedipine (if systolic bp	9	88.9	(51.8 - 99.7)	13	76.9	(46.2 - 95)		
>=160 or diastolic blood pressure >=110)								
Dexamethasone/betamethasone (if	7	57.1	(18.4 - 90.1)	6	16.7	(0.4 - 64.1)		
gestational age >=24 or <=35 weeks)								
Pre-eclampsia managed according to SMI	32	6.2	(0.8 - 20.8)	26	23.1	(9 - 43.6)		
standard			·					

# 7.7.4 Eclampsia

There were six records in basic facilities and six records in complete facilities of women with eclampsia at the second follow-up. The following criteria must be met in the medical record for eclampsia:

1. The woman must have the following vital signs checked:



- Blood pressure
- Pulse / heart rate (if record is from a complete facility)
- Respiratory rate (if record is from a complete facility)
- Patellar reflex (if record is from a complete facility)
- 2. The woman must have the following laboratory tests:
- Urine protein
- Platelet count (if record is from a complete facility)
- Aspartate aminotransferase/ Glutamic-oxalacetic transaminase (GOT) (if record is from a complete facility)
- Alanine transaminase/Glutamic-pyruvic transaminase (GPT) (if record is from a complete facility)
- Lactate dehydrogenase (if record is from a complete facility)
- 3. The woman was administered one of the following medications:
- Magnesium sulfate
- Hydralazine/nifedipine (if systolic blood pressure >=160 or diastolic blood pressure >=110)
- Dexamethasone/betamethasone (if gestational age >=24 & <=35 weeks) (if record is from a complete facility)
- 4. Woman was referred to a complete facility (if record is from a basic facility)

Tables 7.22 and 7.23 display hemorrhage management as indicated in obstetric medical records.

Table 7.22: Maternal eclampsia management, basic facilities

		Second	ollow-Up
	N	%	CI
Vital signs checked	6	100.0	(54.1 - 100)
Blood pressure	6	100.0	(54.1 - 100)
Lab tests	6	33.3	(4.3 - 77.7)
Urine protein	6	33.3	(4.3 - 77.7)
All appropriate medications administered	6	66.7	(22.3 - 95.7)
Magnesium sulfate	6	66.7	(22.3 - 95.7)
Hydralazine / nifedipine (if systolic bp	1	100.0	(2.5 - 100)
>=160 or diastolic bp >=110)			
Referred to complete facility	6	83.3	(35.9 - 99.6)
Eclampsia managed according to SMI standard	6	16.7	(0.4 - 64.1)



Table 7.23: Maternal eclampsia management, complete facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Vital signs checked	3	66.7	(9.4 - 99.2)	6	66.7	(22.3 - 95.7)		
Pulse / heart rate	3	100.0	(29.2 - 100)	6	100.0	(54.1 - 100)		
Blood pressure	3	100.0	(29.2 - 100)	6	100.0	(54.1 - 100)		
Respiratory rate	3	100.0	(29.2 - 100)	6	100.0	(54.1 - 100)		
Patellar reflex	3	66.7	(9.4 - 99.2)	6	66.7	(22.3 - 95.7)		
Lab tests	3	0.0	(0 - 70.8)	6	33.3	(4.3 - 77.7)		
Urine protein	3	33.3	(0.8 - 90.6)	6	66.7	(22.3 - 95.7)		
Platelet count	3	66.7	(9.4 - 99.2)	6	66.7	(22.3 - 95.7)		
Aspartate aminotransferase /	3	33.3	(0.8 - 90.6)	6	33.3	(4.3 - 77.7)		
glutamic-oxalacetic transaminase								
Alanine transaminase /	3	33.3	(0.8 - 90.6)	6	33.3	(4.3 - 77.7)		
glutamic-pyruvic transaminase								
Lactate dehydrogenase	3	33.3	(0.8 - 90.6)	6	50.0	(11.8 - 88.2)		
All appropriate medications administered	3	33.3	(0.8 - 90.6)	6	50.0	(11.8 - 88.2)		
Magnesium sulfate	3	66.7	(9.4 - 99.2)	6	66.7	(22.3 - 95.7)		
Hydralazine / nifedipine (if systolic bp	1	100.0	(2.5 - 100)	2	50.0	(1.3 - 98.7)		
>=160 or diastolic bp >=110)								
Dexamethasone/betamethasone (if	1	0.0	(0 - 97.5)	1	0.0	(0 - 97.5)		
gestational age >=24 or <=35 weeks								
Eclampsia managed according to SMI standard	3	0.0	(0 - 70.8)	6	16.7	(0.4 - 64.1)		

# 7.7.5 Maternal complications indicator performance

The tables below display the percentage of medical records reviewed for maternal complications that indicated appropriate treatment and management according to the SMI standard.

Table 7.24: Maternal complications management, basic facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
Sepsis managed according to SMI standard	1	100	(2.5 - 100)	4	25.0	(0.6 - 80.6)
Hemorrhage managed according to SMI standard	5	40	(5.3 - 85.3)	52	50.0	(35.8 - 64.2)
Pre-eclampsia managed according to SMI standard	5	20	(0.5 - 71.6)	120	5.0	(1.9 - 10.6)
Eclampsia managed according to SMI standard	-	-	-	6	16.7	(0.4 - 64.1)
Complications managed according to SMI standard	10	30	(6.7 - 65.2)	181	18.2	(12.9 - 24.6)



Table 7.25: Maternal complications management, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Sepsis managed according to SMI standard	6	66.7	(22.3 - 95.7)	2	100.0	(15.8 - 100)	
Hemorrhage managed according to SMI standard	60	21.7	(12.1 - 34.2)	39	51.3	(34.8 - 67.6)	
Pre-eclampsia managed according to SMI standard	32	6.2	(0.8 - 20.8)	30	23.3	(9.9 - 42.3)	
Eclampsia managed according to SMI standard	3	0.0	(0 - 70.8)	6	16.7	(0.4 - 64.1)	
Complications managed according to SMI standard	96	16.7	(9.8 - 25.6)	74	39.2	(28 - 51.2)	

# 7.8 Management of neonatal complications in previous two years (sepsis, asphyxia, low birth weight, prematurity)

#### 7.8.1 Sepsis (neonatal)

There were 42 records from basic and 44 records from complete facilities of neonates with sepsis at the second follow-up. The following criteria must be met in the medical record for sepsis:

- 1. The neonate must have the following vital signs checked:
- Pulse / heart rate
- Respiratory rate
- Temperature
- Abdominal exam (if record is from a complete facility)
- 2. The neonate must have received the following laboratory tests:
- Blood biometry (hemoglobin + hematocrit + platelets + leukocyte)
- Oxygen saturation level (if record is from a complete facility)
- Neutrophil band ratio / absolute neutrophil ratio (if record is from a complete facility)
- C-reactive protein (if record is from a complete facility)
- Blood culture (if record is from a complete facility)
- 3. The neonate must be administered antibiotics
- 4. The neonate must be evaluated by a doctor (basic) or specialist (complete)
- 5. Referral to complete facility (if neonate had hymodynaic failure or septic shock and record is from a basic facility)

Tables 7.26 and 7.27 display sepsis management as indicated in neonatal medical records.



Table 7.26: Neonatal sepsis management, basic facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Vital signs checked	21	100.0	(83.9 - 100)	35	94.3	(80.8 - 99.3)
Pulse / heart rate	21	100.0	(83.9 - 100)	35	94.3	(80.8 - 99.3)
Respiratory rate	21	100.0	(83.9 - 100)	35	94.3	(80.8 - 99.3)
Temperature	21	100.0	(83.9 - 100)	35	97.1	(85.1 - 99.9)
Lab tests	21	57.1	(34 - 78.2)	35	68.6	(50.7 - 83.1)
Blood biometry	21	57.1	(34 - 78.2)	35	68.6	(50.7 - 83.1)
Antibiotics administered	21	76.2	(52.8 - 91.8)	35	85.7	(69.7 - 95.2)
Evaluated by doctor (basic) or specialist (complete)	21	95.2	(76.2 - 99.9)	35	94.3	(80.8 - 99.3)
Referred to complete facility (if septic shock)	-	-	-	2	50.0	(1.3 - 98.7)
Sepsis managed according to SMI standard	21	52.4	(29.8 - 74.3)	35	60.0	(42.1 - 76.1)

Table 7.27: Neonatal sepsis management, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	67	95.5	(87.5 - 99.1)	37	97.3	(85.8 - 99.9)	
Pulse / heart rate	67	100.0	(94.6 - 100)	37	100.0	(90.5 - 100)	
Respiratory rate	67	98.5	(92 - 100)	37	100.0	(90.5 - 100)	
Temperature	67	100.0	(94.6 - 100)	37	100.0	(90.5 - 100)	
Abdominal exam	67	97.0	(89.6 - 99.6)	37	97.3	(85.8 - 99.9)	
Lab tests	67	1.5	(0 - 8)	37	2.7	(0.1 - 14.2)	
Blood biometry	67	95.5	(87.5 - 99.1)	37	91.9	(78.1 - 98.3)	
Oxygen saturation	67	44.8	(32.6 - 57.4)	37	51.4	(34.4 - 68.1)	
C-reactive protein	67	47.8	(35.4 - 60.3)	37	64.9	(47.5 - 79.8)	
Blood culture	67	9.0	(3.4 - 18.5)	37	24.3	(11.8 - 41.2)	
Neutrophil band ratio / absolute ratio	67	37.3	(25.8 - 50)	37	67.6	(50.2 - 82)	
Antibiotics administered	67	95.5	(87.5 - 99.1)	37	97.3	(85.8 - 99.9)	
Evaluated by doctor (basic) or specialist	67	59.7	(47 - 71.5)	37	89.2	(74.6 - 97)	
(complete)							
Sepsis managed according to SMI	67	1.5	(0 - 8)	37	2.7	(0.1 - 14.2)	
standard							



#### 7.8.2 Asphyxia

There were 21 records from basic and 20 records from complete facilities of neonates with asphyxia at the second follow-up. The following criteria must be met in the medical record for asphyxia:

- 1. The neonate must have the following vital signs checked:
- Pulse/ heart rate
- Respiratory rate
- APGAR score at one minute
- APGAR score at five minutes
- 2. Heat was applied to the neonate
- 3. The neonate must be evaluated by a doctor (basic) or specialist (complete)
- 4. The neonate must have received the following procedures (only if the APGAR score at 5 minutes is <=3):
- AMBU/positive pressure ventilation (if record is from a basic facility)
- AMBU/positive pressure ventilation/endotracheal intubation (if record is from a complete facility)
- Oxygen application
- Oxygen saturation level (if record is from a complete facility)
- Referred to a complete facility (if neonate did not die in the facility & record is from a basic facility)

Tables 7.28 and 7.29 display asphyxia management as indicated in neonatal medical records.

Table 7.28: Neonatal asphyxia management, basic facilities

		Bas	eline	9	Second	Follow-Up
	N	%	CI	N	%	CI
Vital signs checked	17	94.1	(71.3 - 99.9)	20	80	(56.3 - 94.3)
Pulse / heart rate	17	100.0	(80.5 - 100)	20	95	(75.1 - 99.9)
Respiratory rate	17	100.0	(80.5 - 100)	20	90	(68.3 - 98.8)
APGAR score at one minute	17	94.1	(71.3 - 99.9)	20	90	(68.3 - 98.8)
APGAR score at five minutes	17	94.1	(71.3 - 99.9)	20	85	(62.1 - 96.8)
Oxygen saturation (if APGAR <= 3 at five minutes)	1	0.0	(0 - 97.5)	2	100	(15.8 - 100)
AMBU / endotracheal intubation / cardiac massage (if APGAR <= 3 at five minutes)	1	100.0	(2.5 - 100)	2	100	(15.8 - 100)
Heat application	17	94.1	(71.3 - 99.9)	20	75	(50.9 - 91.3)
Evaluated by doctor (if basic) or specialist (if complete)	17	100.0	(80.5 - 100)	20	95	(75.1 - 99.9)
Referred to complete facility (if APGAR <= 3 at five minutes)	1	0.0	(0 - 97.5)	2	50	(1.3 - 98.7)
Asphyxia managed according to SMI standard	17	82.4	(56.6 - 96.2)	20	60	(36.1 - 80.9)



Table 7.29: Neonatal asphyxia management, complete facilities

		Bas	eline		Second F	ollow-Up
	N	%	CI	N	%	CI
Vital signs checked	30	93.3	(77.9 - 99.2)	17	100.0	(80.5 - 100)
Pulse / heart rate	30	100.0	(88.4 - 100)	17	100.0	(80.5 - 100)
Respiratory rate	30	96.7	(82.8 - 99.9)	17	100.0	(80.5 - 100)
APGAR score at one minute	30	96.7	(82.8 - 99.9)	17	100.0	(80.5 - 100)
APGAR score at five minutes	30	96.7	(82.8 - 99.9)	17	100.0	(80.5 - 100)
Laboratory tests (if APGAR <= 3 at five minutes	1	0.0	(0 - 97.5)	-	-	-
Oxygen saturation (if APGAR <= 3 at five minutes)	1	100.0	(2.5 - 100)	-	-	-
AMBU / endotracheal intubation / cardiac massage (if APGAR <= 3 at five minutes)	1	0.0	(0 - 97.5)	-	-	-
Parsol medications (if APGAR <=3 at five minutes	1	100.0	(2.5 - 100)	-	-	-
Heatapplication	30	86.7	(69.3 - 96.2)	17	100.0	(80.5 - 100)
Evaluated by doctor (if basic) or specialist (if complete)	30	80.0	(61.4 - 92.3)	17	88.2	(63.6 - 98.5)
Asphyxia managed according to SMI standard	30	63.3	(43.9 - 80.1)	17	88.2	(63.6 - 98.5)

### 7.8.3 Low birth weight

There were 52 records from basic and 26 records from complete facilities of neonates with low birth weight at the second follow-up. The following criteria must be met in the medical record for low birth weight:

- 1. Gestational age was calculated using Capurro or Ballard
- 2. Classification based on birth weight (if neonate was not referred from another facility)
- 3. The neonate must have the following vital signs checked:
- Weight
- Height
- Pulse / heart rate
- Respiratory rate
- Head circumference
- Silverman-Anderson score
- APGAR score at one or five minutes
- 4. Neonate was breastfed/given glucose
- 5. Neonate was evaluated by a doctor (basic) or specialist (complete)
- 6. Neonate was referred to a complete facility (if <1500gr or had additional complications & record is from a basic facility)



7. Neonate was treated appropriately for the following complications (if record is from a complete facility):

If neonate has pneumonia: antibiotics
If neonate has diarrhea: antibiotics + IV
If neonate has seizures: anticonvulsants
If neonate has hypoglycemia: glucose IV

Tables 7.30 and 7.31 display low birth weight management as indicated in neonatal medical records.

Table 7.30: Neonatal low birth weight management, basic facilities

		Bas	eline		Second F	ollow-Up
	N	%	CI	N	%	CI
Gestational age calculated using	11	63.6	(30.8 - 89.1)	47	87.2	(74.3 - 95.2)
Capurro/Ballard						
Weight classification (if in-facility delivery)	11	100.0	(71.5 - 100)	37	100.0	(90.5 - 100)
Vital signs checked	11	72.7	(39 - 94)	47	63.8	(48.5 - 77.3)
Weight	11	100.0	(71.5 - 100)	47	97.9	(88.7 - 99.9)
Height	11	100.0	(71.5 - 100)	47	91.5	(79.6 - 97.6)
Pulse / heart rate	11	100.0	(71.5 - 100)	47	95.7	(85.5 - 99.5)
Respiratory rate	11	90.9	(58.7 - 99.8)	47	95.7	(85.5 - 99.5)
Head circumference	11	100.0	(71.5 - 100)	47	91.5	(79.6 - 97.6)
Silverman-Anderson score	11	81.8	(48.2 - 97.7)	47	63.8	(48.5 - 77.3)
APGAR score (at 1 or 5 minutes)	11	100.0	(71.5 - 100)	47	85.1	(71.7 - 93.8)
Breastfed / given glucose	11	63.6	(30.8 - 89.1)	47	89.4	(76.9 - 96.5)
Evaluated by doctor (basic) or specialist	11	100.0	(71.5 - 100)	47	97.9	(88.7 - 99.9)
(complete)						
Referred to complete facility (if weight <	5	20.0	(0.5 - 71.6)	13	69.2	(38.6 - 90.9)
1500 grams or had additional						
complications)						
Low birth weight managed according to	11	27.3	(6 - 61)	47	53.2	(38.1 - 67.9)
SMI standard						

<sup>&</sup>lt;sup>a</sup> Additional complications include: respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations



Table 7.31: Neonatal low birth weight management, complete facilities

		Bas	eline		Second F	ollow-Up
	N	%	CI	N	%	CI
Gestational age calculated using	20	75.0	(50.9 - 91.3)	26	80.8	(60.6 - 93.4)
Capurro/Ballard						
Weight classification (if in-facility delivery)	15	93.3	(68.1 - 99.8)	18	100.0	(81.5 - 100)
Vital signs checked	20	40.0	(19.1 - 63.9)	26	61.5	(40.6 - 79.8)
Weight	20	100.0	(83.2 - 100)	26	100.0	(86.8 - 100)
Height	20	85.0	(62.1 - 96.8)	26	96.2	(80.4 - 99.9)
Pulse / heart rate	20	100.0	(83.2 - 100)	26	100.0	(86.8 - 100)
Respiratory rate	20	95.0	(75.1 - 99.9)	26	100.0	(86.8 - 100)
Head circumference	20	85.0	(62.1 - 96.8)	26	84.6	(65.1 - 95.6)
Silverman-Anderson score	20	45.0	(23.1 - 68.5)	26	61.5	(40.6 - 79.8)
APGAR score (at 1 or 5 minutes)	20	70.0	(45.7 - 88.1)	26	73.1	(52.2 - 88.4)
Breastfed / given glucose	20	60.0	(36.1 - 80.9)	26	76.9	(56.4 - 91)
Evaluated by doctor (basic) or specialist	20	90.0	(68.3 - 98.8)	26	84.6	(65.1 - 95.6)
(complete)			(10.1.00.1)			(0.4.00.0)
Appropriate management of the	4	75.0	(19.4 - 99.4)	3	66.7	(9.4 - 99.2)
following complications:						
If pneumonia: antibiotics	-	-	-	-	-	-
If diarrhea: IV solution + antibiotics	-	-	-	-	-	-
If seizures: anticonvulsants	1	0.0	(0 - 97.5)	-	-	-
If hypoglycemia: glucose IV	3	100.0	(29.2 - 100)	3	66.7	(9.4 - 99.2)
Low birth weight managed according to SMI standard	20	25.0	(8.7 - 49.1)	26	38.5	(20.2 - 59.4)

#### 7.8.4 Prematurity

There were records from basic and records from complete facilities of neonates with low birth weight at the second follow-up. The tables below display all of the conditions the medical record must meet in order to pass the indicator. The following criteria must be met in the medical record for low birth weight:

- 1. Gestational age was calculated using Capurro or Ballard
- 2. Classification based on gestational age (if neonate was not referred from another facility)
- 3. The neonate must have the following vital signs checked:
- Weight
- Pulse / heart rate
- Respiratory rate
- Head circumference
- Silverman-Anderson score



- APGAR score at one or five minutes
- 4. The following laboratory tests must be done:
- · Glycemia test
- Oxygen saturation level (if record is from a complete facility)
- 5. Neonate was breastfed/given glucose
- 6. Heat was applied to the neonate
- 7. Neonate was evaluated by a doctor (basic) or specialist (complete)
- 8. Neonate was referred to a complete facility (if <=34 weeks gestation or had additional complications & record is from a basic facility)
- 9. Neonate was treated appropriately for the following complications (if record is from a complete facility):
- If neonate has pneumonia: antibiotics
- If neonate has diarrhea: antibiotics + IV
- If neonate has seizures: anticonvulsants
- If neonate has hypoglycemia: glucose IV

Tables 7.32 and 7.33, and display prematurity management as indicated in neonatal medical records.



Table 7.32: Neonatal prematurity management, basic facilities

		Ва	seline	9	Second	Follow-Up
	N	%	CI	N	%	CI
Gestational age calculated using	2	50	(1.3 - 98.7)	18	94.4	(72.7 - 99.9)
Capurro/Ballard						
Classification based on gestational age (if	2	50	(1.3 - 98.7)	14	85.7	(57.2 - 98.2)
in-facility delivery)						
Vital signs checked	2	100	(15.8 - 100)	18	50.0	(26 - 74)
Weight	2	100	(15.8 - 100)	18	94.4	(72.7 - 99.9)
Pulse / heart rate	2	100	(15.8 - 100)	18	94.4	(72.7 - 99.9)
Respiratory rate	2	100	(15.8 - 100)	18	88.9	(65.3 - 98.6)
Head circumference	2	100	(15.8 - 100)	18	72.2	(46.5 - 90.3)
Silverman-Anderson score	2	100	(15.8 - 100)	18	66.7	(41 - 86.7)
APGAR score (at 1 or 5 minutes)	2	100	(15.8 - 100)	18	83.3	(58.6 - 96.4)
Laboratory tests	2	50	(1.3 - 98.7)	18	11.1	(1.4 - 34.7)
Glycemia test	2	50	(1.3 - 98.7)	18	11.1	(1.4 - 34.7)
Heat application	2	50	(1.3 - 98.7)	18	72.2	(46.5 - 90.3)
Breastfed / given glucose	2	50	(1.3 - 98.7)	18	66.7	(41 - 86.7)
Evaluated by doctor (basic) or specialist	2	100	(15.8 - 100)	18	94.4	(72.7 - 99.9)
(complete)						
Referred to complete facility (if <=34	1	0	(0 - 97.5)	11	72.7	(39 - 94)
weeks gestsion or additional						
complications)						
Prematurity managed according to SMI	2	0	(0 - 84.2)	18	11.1	(1.4 - 34.7)
standard						

<sup>&</sup>lt;sup>a</sup> Additional complications include: respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations



Table 7.33: Neonatal prematurity management, complete facilities

		Bas	eline		Second F	ollow-Up
	N	%	CI	N	%	CI
Gestational age calculated using	31	96.8	(83.3 - 99.9)	21	95.2	(76.2 - 99.9)
Capurro/Ballard						
Classification based on gestational age (if	21	76.2	(52.8 - 91.8)	17	70.6	(44 - 89.7)
in-facility delivery)						
Vital signs checked	31	51.6	(33.1 - 69.8)	21	71.4	(47.8 - 88.7)
Weight	31	96.8	(83.3 - 99.9)	21	100.0	(83.9 - 100)
Pulse / heart rate	31	100.0	(88.8 - 100)	21	100.0	(83.9 - 100)
Respiratory rate	31	96.8	(83.3 - 99.9)	21	100.0	(83.9 - 100)
Head circumference	31	96.8	(83.3 - 99.9)	21	90.5	(69.6 - 98.8)
Silverman-Anderson score	31	58.1	(39.1 - 75.5)	21	71.4	(47.8 - 88.7)
APGAR score (at 1 or 5 minutes)	31	64.5	(45.4 - 80.8)	21	90.5	(69.6 - 98.8)
Laboratory tests	31	67.7	(48.6 - 83.3)	21	76.2	(52.8 - 91.8)
Glycemia test	31	90.3	(74.2 - 98)	21	81.0	(58.1 - 94.6)
Oxygen saturation level	31	77.4	(58.9 - 90.4)	21	95.2	(76.2 - 99.9)
Heatapplication	31	58.1	(39.1 - 75.5)	21	76.2	(52.8 - 91.8)
Breastfed / given glucose	31	93.5	(78.6 - 99.2)	21	85.7	(63.7 - 97)
Evaluated by doctor (basic) or specialist	31	93.5	(78.6 - 99.2)	21	81.0	(58.1 - 94.6)
(complete)						
Appropriate management of any	11	100.0	(71.5 - 100)	1	0.0	(0 - 97.5)
additional complications						
If pneumonia: antibiotics	2	100.0	(15.8 - 100)	-	-	-
If diarrhea: IV solution + antibiotics	-	-	-	-	-	-
If seizures: anticonvulsants	-	-	-	-	-	-
If hypoglycemia: glucose IV	10	100.0	(69.2 - 100)	1	0.0	(0 - 97.5)
Prematurity managed according to SMI	31	16.1	(5.5 - 33.7)	21	28.6	(11.3 - 52.2)
standard			·			

## 7.8.5 Neonatal complications indicator performance

The tables below display the percentage of medical records reviewed for neonatal complications that indicated appropriate treatment and management according to the SMI standard.



Table 7.34: Neonatal complications management, basic facilities

		Ba	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Sepsis managed according to SMI standard	21	52.4	(29.8 - 74.3)	42	59.5	(43.3 - 74.4)	
Asphyxia managed according to SMI standard	17	82.4	(56.6 - 96.2)	21	57.1	(34 - 78.2)	
Low birth weight managed according to SMI standard	11	27.3	(6 - 61)	52	51.9	(37.6 - 66)	
Prematurity managed according to SMI standard	2	0.0	(0 - 84.2)	20	10.0	(1.2 - 31.7)	
Complications managed according to SMI standard	43	51.2	(35.5 - 66.7)	116	48.3	(38.9 - 57.7)	

Table 7.35: Neonatal complications management, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Sepsis managed according to SMI standard	67	1.5	(0 - 8)	44	2.3	(0.1 - 12)	
Asphyxia managed according to SMI standard	30	63.3	(43.9 - 80.1)	20	90.0	(68.3 - 98.8)	
Low birth weight managed according to SMI standard	20	25.0	(8.7 - 49.1)	26	38.5	(20.2 - 59.4)	
Prematurity managed according to SMI standard	31	16.1	(5.5 - 33.7)	21	28.6	(11.3 - 52.2)	
Complications managed according to SMI standard	102	10.8	(5.5 - 18.5)	74	20.3	(11.8 - 31.2)	



# 8 Chapter 8: Infection control

## 8.1 Disposal equipment and methodology

Staff at health facilities were asked about their infection control. Specifically, facilities were asked about incinerators, manuals that specify decontamination methods, and contracts with other facilities for biohazard disposal. Tables 8.1-8.3 display the percent of facilities that have the listed items. No basic or complete facilities have an incinerator at the facility, however all of these facilities have a contract with another facility for disposal. Facilities were only asked about a contract with other facilities for disposal if the facility reported there was no incinerator.

Table 8.1: Infection control and disposal, ambulatory facilities

		Ва	seline		First F	ollow-Up	Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI
Incinerator at facility	40	0.0	(0 - 8.8)	46	4.3	(0.5 - 14.8)	46	17.4	(7.8 - 31.4)
Contract with other facility for disposal (if no incinerator)	40	27.5	(14.6 - 43.9)	43	23.3	(11.8 - 38.6)	37	27.0	(13.8 - 44.1)
Manual for decontamination	40	27.5	(14.6 - 43.9)	44	52.3	(36.7 - 67.5)	46	47.8	(32.9 - 63.1)

<sup>&</sup>lt;sup>a</sup> One facility at the baseline responded 'don't know/decline to respond' when asked about an incinerator at the facility and contract for disposal. One facility at the baseline responded 'don't know/decline to respond' when asked about a manual for decontamination. These are excluded from the table.

Table 8.2: Infection control and disposal, basic facilities

		Ва	seline		First Fo	ollow-Up		Second Follow-Up			
	N	%	CI	N	%	CI	N	%	CI		
Incinerator at facility	11	9.1	(0.2 - 41.3)	7	0.0	(0 - 41)	12	0.0	(0 - 26.5)		
Contract with other facility for disposal (if no incinerator)	10	90.0	(55.5 - 99.7)	7	71.4	(29 - 96.3)	12	100.0	(73.5 - 100)		
Manual for decontamination	11	54.5	(23.4 - 83.3)	7	71.4	(29 - 96.3)	12	83.3	(51.6 - 97.9)		

<sup>&</sup>lt;sup>b</sup> One facility at the first follow-up responded 'don't know/decline' to respond when asked about a contract for disposal. Two facilities at the first follow-up responded 'don't know/decline to respond' when asked about a manual for decontamination. These are excluded from the table.

<sup>&</sup>lt;sup>c</sup> One facility at the second follow-up responded 'don't know/decline to respond' when asked about a contract for disposal and is excluded from the table.



Table 8.3: Infection control and disposal, complete facilities

		Bas	eline	First Follow-Up				Second Follow-Up		
	N	%	CI	N	%	CI	N	%	CI	
Incinerator at facility	8	12.5	(0.3 - 52.7)	7	0.0	(0 - 41)	2	0	(0 - 84.2)	
Contract with other facility for disposal (if no incinerator)	7	100.0	(59 - 100)	7	100.0	(59 - 100)	2	100	(15.8 - 100)	
Manual for decontamination	8	100.0	(63.1 - 100)	6	83.3	(35.9 - 99.6)	2	100	(15.8 - 100)	

<sup>&</sup>lt;sup>a</sup> One facility at the first follow-up responded 'don't know/decline to respond' when asked about a manual for decontamination and is excluded from the table



# **Appendix A: Intervention Matrices**

Table A.1: Intervention performance matrix

			Bas	eline		First Fo	ollow-Up	Second Follow-Up		
Code	Description	N	%	CI	N	%	CI	N	%	CI
3035	5 ANC visits with quality	73	6.8	(2.3 - 15.3)	321	12.5	(9.1 - 16.6)	457	12.9	(10 - 16.3)
4050	Immediate postpartum care for the woman	207	0.0	(0 - 1.8)	305	0.3	(0 - 1.8)	207	47.8	(40.9 - 54.9)
4070	Neonatal complications management	145	22.8	(16.2 - 30.5)	-	-	-	169	38.5	(31.1 - 46.2)
4080	Maternal complications management	106	17.9	(11.2 - 26.6)	-	-	-	225	24.4	(19 - 30.6)
4090	Active management of the 3rd stage of labor	202	72.3	(65.6 - 78.3)	336	83.6	(79.2 - 87.4)	224	97.3	(94.3 - 99)

<sup>&</sup>lt;sup>a</sup> 3035: RPR not captured as alternative to VDLR at baseline or first follow-up. At the baseline, fetal checks and fundal height were captured only if gestational age at the first visit was eligible

**Table A.2: Intervention monitoring matrix** 

			Baseli	ine	First Follow-Up			Second Follow-Up		
Code	Description	N	%	CI	N	%	CI	N	%	CI
3030	4+ ANC visits with quality	161	16.1	(10.8 - 22.8)	421	15.4	(12.1 - 19.3)	514	1.9	(0.9 - 3.5)
3040	Timely first ANC visit	148	25.7	(18.9 - 33.5)	415	30.6	(26.2 - 35.3)	505	35.4	(31.3 - 39.8)
4103	Neonatal postpartum care	140	17.1	(11.3 - 24.4)	294	18.4	(14.1 - 23.3)	189	31.2	(24.7 - 38.3)
4120	Cesarean section prevalence	14707	31.1	=	17211	26.5	-	15878	22.6	-
4130	Diarrhea management	136	11.0	(6.3 - 17.5)	192	5.2	(2.5 - 9.4)	192	5.2	(2.5 - 9.4)
7000	Cold chain composite	23	73.9	(51.6 - 89.8)	27	77.8	(57.7 - 91.4)	35	77.1	(59.9 - 89.6)
7010	Childcare services composite	55	5.5	(1.1 - 15.1)	59	20.3	(11 - 32.8)	60	30.0	(18.8 - 43.2)
7020	Pre/postnatal care composite	55	3.6	(0.4 - 12.5)	59	35.6	(23.6 - 49.1)	59	28.8	(17.8 - 42.1)
7030	Emergency care composite	13	0.0	(0 - 24.7)	14	14.3	(1.8 - 42.8)	14	14.3	(1.8 - 42.8)
7040	Delivery care composite	17	5.9	(0.1 - 28.7)	14	21.4	(4.7 - 50.8)	14	28.6	(8.4 - 58.1)
7050	Family planning composite	49	57.1	(42.2 - 71.2)	59	64.4	(50.9 - 76.4)	60	78.3	(65.8 - 87.9)
7190	24/7 availability of staff	7	0.0	(0 - 41)	7	14.3	(0.4 - 57.9)	2	0.0	(0 - 84.2)
7210	Access to safe blood	8	100.0	(63.1 - 100)	7	100.0	(59 - 100)	2	100.0	(15.8 - 100)
8870	Socio-cultural conditions	7	42.9	(9.9 - 81.6)	7	85.7	(42.1 - 99.6)	2	50.0	(1.3 - 98.7)

<sup>&</sup>lt;sup>a</sup> 3030: RPR not captured as alternative to VDLR at baseline or first follow-up. At the baseline, fetal checks were captured only if gestational age at the first visit was eligible

<sup>&</sup>lt;sup>b</sup> 4070 & 4080: Baseline value reported in the matrix contains re-collected medical records from outside the baseline data collection time frame (January 2011 - December 2013).

<sup>&</sup>lt;sup>b</sup> 3040: At baseline, gestational age at the first visit was calculated. At first and second follow-up, gestational age was reported in the record

 $<sup>^{\</sup>rm c}$  4103: Heart rate not captured as an alternative at baseline and first follow-up

d 4120: Data collected where available from 13 facilities for the baseline time period and 14 facilities for the first and second follow-up time periods.

<sup>&</sup>lt;sup>e</sup> 7010, 7020, 7030, 7040: Three month stock data not available for all drugs at baseline and first follow-up.



# **Appendix B: Comparison area tables**

Table B2.1: Health facility classification

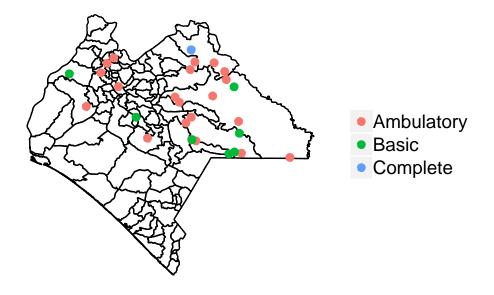
EONC	Baseline	Second Follow-Up
Ambulatory	19	22
Basic	7	7
Complete	4	1
Total	30	30

Table B2.2: Number of facilities by municipality and jurisdiction

Municipality	Baseline Facilities	Second Follow-up Facilities
Comitan		
Las Margaritas	5	6
Maravilla Tenejapa	1	1
Ocosingo		
Altamirano	1	1
Ocosingo	8	5
Palenque		
Benemérito de las Américas	1	1
Ocosingo	-	2
Palenque	7	6
Pichucalco		
Bochil	<del>-</del>	1
Chapultenango	-	1
Solosuchiapa	-	1
Tuxtla Guiterrez		
Francisco León	1	-
Ocotepec	-	1
Ocozocoautla de Espinosa	1	1
San Lucas	1	1
Tecpatán	3	1
Venustiano Carranza	1	1
Total	30	30



Figure B2.1: Geographical representation of facilities



**Table B2.3: Medical record extraction** 

	В	aseline		Second Follow-Up			
Record Type	Ambulatory	Basic	Complete	Ambulatory	Basic	Complete	
Antenatal care	114	177	6	143	67	0	
Diarrhea	65	0	0	52	1	0	
Delivery	0	76	68	0	83	35	
Postpartum care	0	75	68	0	82	35	
Maternal complications	0	135	79	0	54	63	
Total	179	523	279	195	308	174	



Table B2.4: Referrals, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Receives referred patients from other facilities	19	5.3	(0.1 - 26)	22	13.6	(2.9 - 34.9)	
Sends patient referrals to other facilities	19	78.9	(54.4 - 93.9)	22	100.0	(84.6 - 100)	

**Table B2.5: Referrals, basic facilities** 

		Ва	seline		Second	Second Follow-Up	
	N	%	CI	N	%	CI	
Receives referred patients from other facilities	7	57.1	(18.4 - 90.1)	7	85.7	(42.1 - 99.6)	
Receives referred routine deliveries Receives referred complicated deliveries	-	-	-	6 6	100.0 50.0	(54.1 - 100) (11.8 - 88.2)	
Sends patient referrals to other facilities Sends referred routine deliveries Sends referred complicated deliveries	7 - -	71.4	(29 - 96.3) - -	7 7 7	100.0 14.3 100.0	(59 - 100) (0.4 - 57.9) (59 - 100)	

Table B2.6: Referrals, complete facilities

		Baseline			Second Follow-U		
	N	%	CI	N	%	CI	
Receives referred patients from other facilities	4	75	(19.4 - 99.4)	1	100	(2.5 - 100)	
Receives referred routine deliveries	-	-	-	1	100	(2.5 - 100)	
Receives referred complicated deliveries	-	-	-	1	100	(2.5 - 100)	
Sends patient referrals to other facilities	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Sends referred routine deliveries	-	-	-	1	0	(0 - 97.5)	
Sends referred complicated deliveries	-	-	-	1	0	(0 - 97.5)	



Table B2.7: Requested referral documents, second follow-up evaluation

	Basic				Complete		
	N	%	CI	N	%	CI	
Routine Deliveries							
Referral sheet	6	0.0	(0 - 45.9)	1	0	(0 - 97.5)	
Patient medical record	6	16.7	(0.4 - 64.1)	1	0	(0 - 97.5)	
Lab tests	6	33.3	(4.3 - 77.7)	1	0	(0 - 97.5)	
Proof of insurance	6	50.0	(11.8 - 88.2)	1	100	(2.5 - 100)	
Other documentation	6	100.0	(54.1 - 100)	1	100	(2.5 - 100)	
Complicated Deliveries							
Referral sheet	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)	
Patient medical record	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Lab tests	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Proof of insurance	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Other documentation	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	

Table B2.8: Personnel employed, ambulatory facilities

		Bas	seline	SecondFollow-Up			
	N	%	CI	Ν	%	CI	
General physician	19	73.7	(48.8 - 90.9)	22	77.3	(54.6 - 92.2)	
Pediatrician	19	0.0	(0 - 17.6)	22	0.0	(0 - 15.4)	
Nutritionist	19	15.8	(3.4 - 39.6)	22	18.2	(5.2 - 40.3)	
Pharmacist	19	10.5	(1.3 - 33.1)	22	4.5	(0.1 - 22.8)	
Nurse	19	68.4	(43.4 - 87.4)	22	77.3	(54.6 - 92.2)	
Auxiliary nurse	19	5.3	(0.1 - 26)	22	31.8	(13.9 - 54.9)	
Midwife	19	10.5	(1.3 - 33.1)	22	0.0	(0 - 15.4)	
Social worker	19	15.8	(3.4 - 39.6)	22	18.2	(5.2 - 40.3)	
Lab technician/chemist	19	10.5	(1.3 - 33.1)	22	4.5	(0.1 - 22.8)	
Healthpromoter	19	36.8	(16.3 - 61.6)	22	31.8	(13.9 - 54.9)	
Polivalent/multipurpose	-	-	-	22	13.6	(2.9 - 34.9)	
Employee for equipment maintenance	19	5.3	(0.1 - 26)	22	0.0	(0 - 15.4)	
Employee for building maintenance	19	15.8	(3.4 - 39.6)	22	4.5	(0.1 - 22.8)	



Table B2.9: Personnel employed, basic facilities

		Pac	seline		Second	Follow-Up
		Das	Seilile —————————————————————————————————	1	Second	-ollow-op
	N	%	CI	N	%	CI
General physician	7	85.7	(42.1 - 99.6)	7	100.0	(59 - 100)
Pediatrician	7	0.0	(0 - 41)	7	28.6	(3.7 - 71)
Nutritionist	7	42.9	(9.9 - 81.6)	7	85.7	(42.1 - 99.6)
Pharmacist	7	57.1	(18.4 - 90.1)	7	28.6	(3.7 - 71)
Nurse	7	100.0	(59 - 100)	7	100.0	(59 - 100)
Auxiliary nurse	7	57.1	(18.4 - 90.1)	7	85.7	(42.1 - 99.6)
Midwife	7	0.0	(0 - 41)	7	0.0	(0 - 41)
Social worker	7	71.4	(29 - 96.3)	7	71.4	(29 - 96.3)
Lab technician/chemist	7	57.1	(18.4 - 90.1)	7	71.4	(29 - 96.3)
Healthpromoter	7	42.9	(9.9 - 81.6)	7	42.9	(9.9 - 81.6)
Polivalent/multipurpose	-	-	-	7	0.0	(0 - 41)
Internist	7	0.0	(0 - 41)	7	0.0	(0 - 41)
Gynecologist	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)
Surgeon	7	14.3	(0.4 - 57.9)	7	28.6	(3.7 - 71)
Anesthesiologist	7	28.6	(3.7 - 71)	7	42.9	(9.9 - 81.6)
Emergency medical technician	7	0.0	(0 - 41)	7	0.0	(0 - 41)
Radiology technician	7	57.1	(18.4 - 90.1)	7	57.1	(18.4 - 90.1)
Ambulance driver	7	57.1	(18.4 - 90.1)	7	42.9	(9.9 - 81.6)
Employee for equipment maintenance	7	14.3	(0.4 - 57.9)	7	28.6	(3.7 - 71)
Employee for building maintenance	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)
				1		

Table B2.10: Personnel employed, complete facilities

		Bas	eline	S	econd I	ollow-Up
	N	%	CI	N	%	CI
General physician	4	100.0	(39.8 - 100)	1	100	(2.5 - 100)
Pediatrician	4	75.0	(19.4 - 99.4)	1	100	(2.5 - 100)
Nutritionist	4	50.0	(6.8 - 93.2)	1	100	(2.5 - 100)
Pharmacist	4	0.0	(0 - 60.2)	1	100	(2.5 - 100)
Nurse	4	100.0	(39.8 - 100)	1	100	(2.5 - 100)
Auxiliary nurse	4	25.0	(0.6 - 80.6)	1	100	(2.5 - 100)
Midwife	4	25.0	(0.6 - 80.6)	1	0	(0 - 97.5)
Social worker	4	50.0	(6.8 - 93.2)	1	100	(2.5 - 100)
Lab technician/chemist	3	33.3	(0.8 - 90.6)	1	100	(2.5 - 100)
Healthpromoter	4	25.0	(0.6 - 80.6)	1	0	(0 - 97.5)
Polivalent/multipurpose	-	-	-	1	100	(2.5 - 100)
Internist	4	25.0	(0.6 - 80.6)	1	100	(2.5 - 100)
Gynecologist	4	75.0	(19.4 - 99.4)	1	100	(2.5 - 100)
Surgeon	4	50.0	(6.8 - 93.2)	1	100	(2.5 - 100)
Anesthesiologist	4	75.0	(19.4 - 99.4)	1	100	(2.5 - 100)
Emergency medical technician	4	0.0	(0 - 60.2)	1	0	(0 - 97.5)
Radiology technician	4	50.0	(6.8 - 93.2)	1	100	(2.5 - 100)
Ambulance driver	4	50.0	(6.8 - 93.2)	1	100	(2.5 - 100)
Employee for equipment maintenance	4	25.0	(0.6 - 80.6)	1	100	(2.5 - 100)
Employee for building maintenance	4	50.0	(6.8 - 93.2)	1	100	(2.5 - 100)

<sup>&</sup>lt;sup>a</sup> One complete facility responded 'don't know/refuse to respond' when asked about lab technician/chemist



Table B2.11: 24/7 staff availability, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
At least one gynecologist available 24/7	4	50	(6.8 - 93.2)	1	100	(2.5 - 100)	
At least one internist available 24/7	4	25	(0.6 - 80.6)	1	0	(0 - 97.5)	
At least one anesthesiologist available 24/7	4	50	(6.8 - 93.2)	1	100	(2.5 - 100)	
All types of personnel available 24/7	4	25	(0.6 - 80.6)	1	0	(0 - 97.5)	

Table B2.12: Access to electricity and water, ambulatory facilities

		Bas	eline		Second Follow-Up		
	N	%	CI	N	%	CI	
Functional electricity supply	19	89.5	(66.9 - 98.7)	22	90.9	(70.8 - 98.9)	
Public electricity network	17	100.0	(80.5 - 100)	20	95.0	(75.1 - 99.9)	
Private electricity network	17	0.0	(0 - 19.5)	20	0.0	(0 - 16.8)	
Emergency electric plant	17	0.0	(0 - 19.5)	20	0.0	(0 - 16.8)	
Solar generator	17	0.0	(0 - 19.5)	20	5.0	(0.1 - 24.9)	
Othersource	17	0.0	(0 - 19.5)	20	0.0	(0 - 16.8)	
Water supply							
Public water network	18	88.9	(65.3 - 98.6)	22	81.8	(59.7 - 94.8)	
Public well	18	11.1	(1.4 - 34.7)	22	4.5	(0.1 - 22.8)	
Protected well at facility	18	5.6	(0.1 - 27.3)	22	4.5	(0.1 - 22.8)	
Unprotected well	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	
Manual pump	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	
Bottled water	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	
Tank or pipe truck	18	16.7	(3.6 - 41.4)	22	13.6	(2.9 - 34.9)	
Rain water	18	0.0	(0 - 18.5)	22	4.5	(0.1 - 22.8)	
Othersource	18	5.6	(0.1 - 27.3)	22	13.6	(2.9 - 34.9)	

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/decline to respond' when asked the source of water.



Table B2.13: Access to electricity and water, basic facilities

		Bas	eline		Second Follow-Up		
	N	%	CI	N	%	CI	
Functional electricity supply	7	100.0	(59 - 100)	7	100.0	(59 - 100)	
Public electricity network	7	100.0	(59 - 100)	7	100.0	(59 - 100)	
Private electricity network	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Emergency electric plant	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Solar generator	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Othersource	7	0.0	(0 - 41)	7	14.3	(0.4 - 57.9)	
Water supply							
Public water network	7	85.7	(42.1 - 99.6)	7	85.7	(42.1 - 99.6)	
Public well	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Protected well at facility	7	0.0	(0 - 41)	7	28.6	(3.7 - 71)	
Unprotected well	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Manual pump	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Bottled water	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Tank or pipe truck	7	42.9	(9.9 - 81.6)	7	14.3	(0.4 - 57.9)	
Rain water	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Othersource	7	14.3	(0.4 - 57.9)	7	14.3	(0.4 - 57.9)	

Table B2.14: Access to electricity and water, complete facilities

		Ва	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Functional electricity supply	4	100	(39.8 - 100)	1	100	(2.5 - 100)
Public electricity network	4	100	(39.8 - 100)	1	100	(2.5 - 100)
Private electricity network	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Emergency electric plant	4	25	(0.6 - 80.6)	1	0	(0 - 97.5)
Solar generator	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Othersource	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Water supply						
Public water network	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)
Public well	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Protected well at facility	4	25	(0.6 - 80.6)	1	100	(2.5 - 100)
Unprotected well	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Manual pump	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Bottled water	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Tank or pipe truck	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Rain water	4	0	(0 - 60.2)	1	0	(0 - 97.5)
Othersource	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)

Table B2.15: Internet access, ambulatory facilities

		Baseline			Second Follow-Up			
	N	%	CI	N	%	CI		
Functional internet connection	19	5.3	(0.1 - 26)	22	31.8	(13.9 - 54.9)		



Table B2.16: Internet access, basic facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Functional internet connection	7	42.9	(9.9 - 81.6)	7	57.1	(18.4 - 90.1)	

Table B2.17: Internet access, complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Functionalinternet connection	4	75	(19.4 - 99.4)	1	100	(2.5 - 100)	

Table B2.18: Access to safe blood, complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Facility has access to safe blood	4	100	(39.8 - 100)	1	100	(2.5 - 100)	



Table B3.1: Child health care services provision, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Provides childcare services	19	94.7	(74 - 99.9)	22	100.0	(84.6 - 100)	
Vaccinates children under five	19	94.7	(74 - 99.9)	22	100.0	(84.6 - 100)	
Child health care area							
Visual and auditory privacy	16	93.8	(69.8 - 99.8)	22	81.8	(59.7 - 94.8)	
Non private area	16	0.0	(0 - 20.6)	22	9.1	(1.1 - 29.2)	
Visual privacy only	16	0.0	(0 - 20.6)	22	9.1	(1.1 - 29.2)	
Other	16	0.0	(0 - 20.6)	22	0.0	(0 - 15.4)	
Do not provide service	16	6.2	(0.2 - 30.2)	22	0.0	(0 - 15.4)	

<sup>&</sup>lt;sup>a</sup> Observed childcare area data missing from three facilities at the baseline

Table B3.2: Child health care services provision, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Provides childcare services	7	100	(59 - 100)	7	100.0	(59 - 100)	
Vaccinates children under five	7	100	(59 - 100)	7	85.7	(42.1 - 99.6)	
Child health care area							
Visual and auditory privacy	7	100	(59 - 100)	7	100.0	(59 - 100)	
Non private area	7	0	(0 - 41)	7	0.0	(0 - 41)	
Visual privacy only	7	0	(0 - 41)	7	0.0	(0 - 41)	
Other	7	0	(0 - 41)	7	0.0	(0 - 41)	
Do not provide service	7	0	(0 - 41)	7	0.0	(0 - 41)	

Table B3.3: Child health care services provision, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Provides childcare services	4	75	(19.4 - 99.4)	1	100	(2.5 - 100)	
Vaccinates children under five	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Child health care area							
Visual and auditory privacy	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Non private area	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Visual privacy only	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Other	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Do not provide service	4	0	(0 - 60.2)	1	0	(0 - 97.5)	



Table B3.4: Child health care equipment observed and functional, ambulatory facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pediatric scale/salter scale	15	66.7	(38.4 - 88.2)	22	86.4	(65.1 - 97.1)	
Standing scale/salter scale	15	93.3	(68.1 - 99.8)	22	95.5	(77.2 - 99.9)	
Heightrod	15	93.3	(68.1 - 99.8)	22	100.0	(84.6 - 100)	
Stethoscope	15	86.7	(59.5 - 98.3)	22	100.0	(84.6 - 100)	
Thermometer	15	86.7	(59.5 - 98.3)	22	100.0	(84.6 - 100)	
Vaccination, health, or growth & development cards	15	100.0	(78.2 - 100)	22	100.0	(84.6 - 100)	
All equipment observed and functional	15	60.0	(32.3 - 83.7)	22	81.8	(59.7 - 94.8)	

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale.

Table B3.5: Child health care equipment observed and functional, basic facilities

	Baseline				SecondFollow-Up			
	N	%	CI	N	%	CI		
Pediatric scale/salter scale	7	100.0	(59 - 100)	7	100.0	(59 - 100)		
Standing scale/salter scale	7	100.0	(59 - 100)	7	100.0	(59 - 100)		
Height rod	7	100.0	(59 - 100)	7	100.0	(59 - 100)		
Pediatric blood pressure apparatus	7	28.6	(3.7 - 71)	7	14.3	(0.4 - 57.9)		
Pediatric stethoscope	7	0.0	(0 - 41)	7	42.9	(9.9 - 81.6)		
All equipment observed and functional	7	0.0	(0 - 41)	7	0.0	(0 - 41)		

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale

Table B3.6: Child health care equipment observed and functional, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pediatric scale/salter scale	4	75	(19.4 - 99.4)	1	100	(2.5 - 100)	
Standing scale/salter scale	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Height rod	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Pediatric blood pressure apparatus	4	0	(0 - 60.2)	1	100	(2.5 - 100)	
Pediatric stethoscope	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)	
All equipment observed and functional	4	0	(0 - 60.2)	1	0	(0 - 97.5)	

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale.



Table B3.7: Child health care pharmacy inputs, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Oral rehydration salts	15	93.3	(68.1 - 99.8)	22	86.4	(65.1 - 97.1)	
Ferrous sulfate / micronutrients for children	15	33.3	(11.8 - 61.6)	22	40.9	(20.7 - 63.6)	
Albendazole / mebendazole	15	86.7	(59.5 - 98.3)	22	95.5	(77.2 - 99.9)	
Erythromycin / ampicillin / penicillin benzathine	12	91.7	(61.5 - 99.8)	17	94.1	(71.3 - 99.9)	
All drugs observed on day of observation	15	26.7	(7.8 - 55.1)	22	40.9	(20.7 - 63.6)	
All drugs continuously available in past three months	15	26.7	(7.8 - 55.1)	22	4.5	(0.1 - 22.8)	

<sup>&</sup>lt;sup>a</sup> Erythromycin/ampicillin/penicillin benzathine only measured at ambulatory facilities with a doctor

Table B3.8: Child health care pharmacy inputs, basic facilities

		Ва	seline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Oral rehydration salts	7	85.7	(42.1 - 99.6)	7	71.4	(29 - 96.3)	
Ferrous sulfate / micronutrients for children	7	28.6	(3.7 - 71)	7	100.0	(59 - 100)	
Albendazole / mebendazole	7	71.4	(29 - 96.3)	7	85.7	(42.1 - 99.6)	
Penicillin crystalline / ampicillin / amoxicillin	7	85.7	(42.1 - 99.6)	7	100.0	(59 - 100)	
Ringer's lactate / Hartmann's / saline solution	7	28.6	(3.7 - 71)	7	100.0	(59 - 100)	
All drugs observed on day of observation	7	14.3	(0.4 - 57.9)	7	57.1	(18.4 - 90.1)	
All drugs continuously available in past three months	7	14.3	(0.4 - 57.9)	7	0.0	(0 - 41)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table B3.9: Child health care pharmacy inputs, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Oral rehydration salts	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Ferrous sulfate / micronutrients for children	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)	
Albendazole / mebendazole	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Penicillin crystalline / ampicillin / amoxicillin	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Ringer's lactate / Hartmann's / saline solution	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
All drugs observed on day of observation	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)	
All drugs continuously available in past three months	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B3.10: Child health care vaccines, ambulatory facilities with a doctor

		Ва	aseline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	5	80	(28.4 - 99.5)	6	83.3	(35.9 - 99.6)	
Polio	5	60	(14.7 - 94.7)	6	50.0	(11.8 - 88.2)	
Measles, Mumps, Rubella	5	80	(28.4 - 99.5)	6	50.0	(11.8 - 88.2)	
Influenza	5	60	(14.7 - 94.7)	6	66.7	(22.3 - 95.7)	
Rotavirus	5	80	(28.4 - 99.5)	6	100.0	(54.1 - 100)	
Pneumococcal conjugate	5	40	(5.3 - 85.3)	6	100.0	(54.1 - 100)	
BCG	5	80	(28.4 - 99.5)	6	83.3	(35.9 - 99.6)	
All vaccines observed on day of survey	5	40	(5.3 - 85.3)	6	33.3	(4.3 - 77.7)	
All vaccines continuously available in past three months	5	40	(5.3 - 85.3)	6	0.0	(0 - 45.9)	

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



Table B3.11: Child health care vaccines, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	3	100.0	(29.2 - 100)	4	75	(19.4 - 99.4)	
Polio	3	66.7	(9.4 - 99.2)	4	50	(6.8 - 93.2)	
Measles, Mumps, Rubella	3	100.0	(29.2 - 100)	4	25	(0.6 - 80.6)	
Influenza	3	66.7	(9.4 - 99.2)	4	50	(6.8 - 93.2)	
Rotavirus	3	100.0	(29.2 - 100)	4	75	(19.4 - 99.4)	
Pneumococcal conjugate	3	66.7	(9.4 - 99.2)	4	50	(6.8 - 93.2)	
BCG	3	66.7	(9.4 - 99.2)	4	100	(39.8 - 100)	
All vaccines observed on day of survey	3	66.7	(9.4 - 99.2)	4	25	(0.6 - 80.6)	
All vaccines continuously available in past three months	3	0.0	(0 - 70.8)	4	0	(0 - 60.2)	

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

Table B3.12: Child health care vaccines, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Polio	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Measles, Mumps, Rubella	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Influenza	3	0.0	(0 - 70.8)	1	100	(2.5 - 100)	
Rotavirus	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Pneumococcal conjugate	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
BCG	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
All vaccines observed on day of survey	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)	
All vaccines continuously available in past three months	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)	

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



Table B3.13: Child health care composite indicator, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
All equipment observed and functional	15	60.0	(32.3 - 83.7)	22	81.8	(59.7 - 94.8)	
All pharmacy inputs continuously available in past three months	15	26.7	(7.8 - 55.1)	22	4.5	(0.1 - 22.8)	
All vaccines continuously available in past three months	5	40.0	(5.3 - 85.3)	6	0.0	(0 - 45.9)	
Child health care provision according to standard	15	13.3	(1.7 - 40.5)	22	4.5	(0.1 - 22.8)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up

Table B3.14: Child health care composite indicator, basic facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
All equipment observed and functional	7	0.0	(0 - 41)	7	0	(0 - 41)
All pharmacy inputs continuously available in past three months	7	14.3	(0.4 - 57.9)	7	0	(0 - 41)
All vaccines continuously available in past three months	3	0.0	(0 - 70.8)	4	0	(0 - 60.2)
Child health care provision according to standard	7	0.0	(0 - 41)	7	0	(0 - 41)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up

Table B3.15: Child health care composite indicator, complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
All equipment observed and functional	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
All pharmacy inputs continuously available in past three months	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)	
All vaccines continuously available in past three months	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Child health care provision according to standard	4	0	(0 - 60.2)	1	0	(0 - 97.5)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up



Table B3.16: Diarrhea treatment, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
All symptoms recorded:	65	18.5	(9.9 - 30)	44	72.7	(57.2 - 85)	
General condition	65	36.9	(25.3 - 49.8)	44	97.7	(88 - 99.9)	
Eyes	65	23.1	(13.5 - 35.2)	44	84.1	(69.9 - 93.4)	
Thirst	65	21.5	(12.3 - 33.5)	44	86.4	(72.6 - 94.8)	
Skin fold	65	20.0	(11.1 - 31.8)	44	84.1	(69.9 - 93.4)	
All checkups performed:	65	13.8	(6.5 - 24.7)	44	25.0	(13.2 - 40.3)	
Capillary refill	65	15.4	(7.6 - 26.5)	44	56.8	(41 - 71.7)	
Pulse	65	35.4	(23.9 - 48.2)	44	61.4	(45.5 - 75.6)	
Administered oral rehydration salts	65	72.3	(59.8 - 82.7)	44	97.7	(88 - 99.9)	
Child treated appropriately for diarrhea	65	9.2	(3.5 - 19)	44	22.7	(11.5 - 37.8)	



Table B4.1: Immunization services provision, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vaccinates children under five	19	94.7	(74 - 99.9)	22	100.0	(84.6 - 100)	
Immunization area							
Visual and auditory privacy	18	72.2	(46.5 - 90.3)	22	77.3	(54.6 - 92.2)	
Non private area	18	22.2	(6.4 - 47.6)	22	22.7	(7.8 - 45.4)	
Visual privacy only	18	5.6	(0.1 - 27.3)	22	0.0	(0 - 15.4)	
Other	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	
Do not provide service	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	

<sup>&</sup>lt;sup>a</sup> Immunization area data missing from one facility at the baseline

Table B4.2: Immunization services provision, basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vaccinates children under five	7	100.0	(59 - 100)	7	85.7	(42.1 - 99.6)	
Immunization area							
Visual and auditory privacy	7	85.7	(42.1 - 99.6)	7	71.4	(29 - 96.3)	
Non private area	7	14.3	(0.4 - 57.9)	7	28.6	(3.7 - 71)	
Visual privacy only	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Other	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Do not provide service	7	0.0	(0 - 41)	7	0.0	(0 - 41)	

Table B4.3: Immunization services provision, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vaccinates children under five	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Immunization area							
Visual and auditory privacy	4	100	(39.8 - 100)	1	100	(2.5 - 100)	
Non private area	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Visual privacy only	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Other	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Do not provide service	4	0	(0 - 60.2)	1	0	(0 - 97.5)	



Table B4.4: Vaccine storage, ambulatory facilities which provide immunization services to children under five

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Stores vaccines	18	33.3	(13.3 - 59)	22	27.3	(10.7 - 50.2)	
Collected from another health facility	18	44.4	(21.5 - 69.2)	22	36.4	(17.2 - 59.3)	
Delivered when immunization services provided	18	16.7	(3.6 - 41.4)	22	36.4	(17.2 - 59.3)	
Does not store vaccines	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	

Table B4.5: Vaccine storage, basic facilities which provide immunization services to children under five

	Baseline				Second Follow-Up			
	N	%	CI	N	%	CI		
Stores vaccines	7	57.1	(18.4 - 90.1)	6	66.7	(22.3 - 95.7)		
Collected from another health facility	7	28.6	(3.7 - 71)	6	33.3	(4.3 - 77.7)		
Delivered when immunization services provided	7	14.3	(0.4 - 57.9)	6	0.0	(0 - 45.9)		
Does not store vaccines	7	0.0	(0 - 41)	6	0.0	(0 - 45.9)		

Table B4.6: Vaccine storage, complete facilities which provide immunization services to children under five

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Stores vaccines	4	50	(6.8 - 93.2)	1	100	(2.5 - 100)	
Collected from another health facility	4	50	(6.8 - 93.2)	1	0	(0 - 97.5)	
Delivered when immunization services provided	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Does not store vaccines	4	0	(0 - 60.2)	1	0	(0 - 97.5)	



Table B4.7: Vaccine supply, ambulatory facilities

		Bas	seline	SecondFollow-Up		
	N	%	CI	N	%	CI
Ordering strategy						
Determines own need	6	100.0	(54.1 - 100)	6	100.0	(54.1 - 100)
Need determined elsewhere	6	0.0	(0 - 45.9)	6	0.0	(0 - 45.9)
Both (differ by vaccine)	6	0.0	(0 - 45.9)	6	0.0	(0 - 45.9)
Don't know	6	0.0	(0 - 45.9)	6	0.0	(0 - 45.9)
Time to receive supplies						
One day	6	83.3	(35.9 - 99.6)	6	66.7	(22.3 - 95.7)
2 - 7 days	6	0.0	(0 - 45.9)	6	0.0	(0 - 45.9)
More than one week	6	16.7	(0.4 - 64.1)	6	33.3	(4.3 - 77.7)
Reception of quantity ordered						
Always	6	66.7	(22.3 - 95.7)	6	33.3	(4.3 - 77.7)
Almost always	6	33.3	(4.3 - 77.7)	6	66.7	(22.3 - 95.7)
Almost never	6	0.0	(0 - 45.9)	6	0.0	(0 - 45.9)
Don't Know	6	0.0	(0 - 45.9)	6	0.0	(0 - 45.9)

Table B4.8: Vaccine supply, basic facilities

		Ва	seline		Second Follow-Up		
	N	%	CI	N	%	CI	
Ordering strategy							
Determines own need	4	100	(39.8 - 100)	4	100	(39.8 - 100)	
Need determined elsewhere	4	0	(0 - 60.2)	4	0	(0 - 60.2)	
Both (differ by vaccine)	4	0	(0 - 60.2)	4	0	(0 - 60.2)	
Don't know	4	0	(0 - 60.2)	4	0	(0 - 60.2)	
Time to receive supplies							
One day	4	100	(39.8 - 100)	4	75	(19.4 - 99.4)	
2 - 7 days	4	0	(0 - 60.2)	4	25	(0.6 - 80.6)	
More than one week	4	0	(0 - 60.2)	4	0	(0 - 60.2)	
Reception of quantity ordered							
Always	4	25	(0.6 - 80.6)	4	25	(0.6 - 80.6)	
Almost always	4	75	(19.4 - 99.4)	4	50	(6.8 - 93.2)	
Almost never	4	0	(0 - 60.2)	4	25	(0.6 - 80.6)	
Don't Know	4	0	(0 - 60.2)	4	0	(0 - 60.2)	
				I			



Table B4.9: Vaccine supply, complete facilities

		Ва	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Ordering strategy						
Determines own need	2	100	(15.8 - 100)	1	100	(2.5 - 100)
Need determined elsewhere	2	0	(0 - 84.2)	1	0	(0 - 97.5)
Both (differ by vaccine)	2	0	(0 - 84.2)	1	0	(0 - 97.5)
Don't know	2	0	(0 - 84.2)	1	0	(0 - 97.5)
Time to receive supplies						
One day	2	100	(15.8 - 100)	1	100	(2.5 - 100)
2 - 7 days	2	0	(0 - 84.2)	1	0	(0 - 97.5)
More than one week	2	0	(0 - 84.2)	1	0	(0 - 97.5)
Reception of quantity ordered						
Always	2	100	(15.8 - 100)	1	0	(0 - 97.5)
Almost always	2	0	(0 - 84.2)	1	0	(0 - 97.5)
Almost never	2	0	(0 - 84.2)	1	100	(2.5 - 100)
Don't Know	2	0	(0 - 84.2)	1	0	(0 - 97.5)

Table B4.10: Vaccines observed day of survey, ambulatory facilities

		Ва	aseline		Second Follow-Up		
	N	%	CI	N	%	CI	
Pentavalent	5	80	(28.4 - 99.5)	7	85.7	(42.1 - 99.6)	
DPT alone	1	0	(0 - 97.5)	1	100.0	(2.5 - 100)	
Hepatitis B alone	-	-	-	1	0.0	(0 - 97.5)	
Haemophilus Influenzae Type B alone	-	-	-	1	0.0	(0 - 97.5)	
Polio / IPV	5	60	(14.7 - 94.7)	7	57.1	(18.4 - 90.1)	
Measles, mumps, rubella	5	80	(28.4 - 99.5)	7	57.1	(18.4 - 90.1)	
Rotavirus	5	80	(28.4 - 99.5)	7	100.0	(59 - 100)	
Pneumococcal conjugate	5	40	(5.3 - 85.3)	7	100.0	(59 - 100)	
BCG	5	80	(28.4 - 99.5)	7	85.7	(42.1 - 99.6)	
Influenza	5	60	(14.7 - 94.7)	7	71.4	(29 - 96.3)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.



Table B4.11: Vaccines observed day of survey, basic facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Pentavalent	3	100.0	(29.2 - 100)	4	75	(19.4 - 99.4)
DPT alone	-	-	-	1	0	(0 - 97.5)
Hepatitis B alone	-	-	-	1	0	(0 - 97.5)
Haemophilus Influenzae Type B alone	-	-	-	1	0	(0 - 97.5)
Polio / IPV	3	66.7	(9.4 - 99.2)	4	50	(6.8 - 93.2)
Measles, mumps, rubella	3	100.0	(29.2 - 100)	4	25	(0.6 - 80.6)
Rotavirus	3	100.0	(29.2 - 100)	4	75	(19.4 - 99.4)
Pneumococcal conjugate	3	66.7	(9.4 - 99.2)	4	50	(6.8 - 93.2)
BCG	3	66.7	(9.4 - 99.2)	4	100	(39.8 - 100)
Influenza	3	66.7	(9.4 - 99.2)	4	50	(6.8 - 93.2)

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.

Table B4.12: Vaccines observed day of survey, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Pentavalent	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
DPT alone	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)	
Hepatitis B alone	-	-	-	1	0	(0 - 97.5)	
Haemophilus Influenzae Type B alone	-	-	-	1	0	(0 - 97.5)	
Polio / IPV	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Measles, mumps, rubella	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Rotavirus	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Pneumococcal conjugate	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
BCG	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Influenza	3	0.0	(0 - 70.8)	1	100	(2.5 - 100)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.



Table B4.13: Cold chain composite indicator, ambulatory facilities

		Ba	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Temperature monitoring chart for each functional refrigerator	4	100	(39.8 - 100)	7	100.0	(59 - 100)
Temperature recorded twice daily during past 30 days	4	100	(39.8 - 100)	7	100.0	(59 - 100)
Temperature is 2-8 degrees celcius on the day of the survey	4	100	(39.8 - 100)	7	85.7	(42.1 - 99.6)
Temperature is 2-8 degrees celcius in the past 30 days	4	100	(39.8 - 100)	3	100.0	(29.2 - 100)
Cold chain according to standard	4	100	(39.8 - 100)	7	85.7	(42.1 - 99.6)

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart

Table B4.14: Cold chain composite indicator, basic facilities

		Ba	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Temperature monitoring chart for each functional refrigerator	4	100	(39.8 - 100)	5	100	(47.8 - 100)
Temperature recorded twice daily during past 30 days	4	100	(39.8 - 100)	5	100	(47.8 - 100)
Temperature is 2-8 degrees celcius on the day of the survey	4	100	(39.8 - 100)	5	100	(47.8 - 100)
Temperature is 2-8 degrees celcius in the past 30 days	4	100	(39.8 - 100)	4	100	(39.8 - 100)
Cold chain according to standard	4	100	(39.8 - 100)	5	100	(47.8 - 100)

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart

Table B4.15: Cold chain composite indicator, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Temperature monitoring chart for each functional refrigerator	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)
Temperature recorded twice daily during past 30 days	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)
Temperature is 2-8 degrees celcius on the day of the survey	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)
Temperature is 2-8 degrees celcius in the past 30 days	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)
Cold chain according to standard	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart



Table B5.1: Family planning services provision, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Offers family planning services	19	94.7	(74 - 99.9)	22	100.0	(84.6 - 100)	
Family planning area							
Visual and auditory privacy	16	93.8	(69.8 - 99.8)	22	77.3	(54.6 - 92.2)	
Non private area	16	6.2	(0.2 - 30.2)	22	13.6	(2.9 - 34.9)	
Visual privacy only	16	0.0	(0 - 20.6)	22	9.1	(1.1 - 29.2)	
Other	16	0.0	(0 - 20.6)	22	0.0	(0 - 15.4)	
Do not provide service	16	0.0	(0 - 20.6)	22	0.0	(0 - 15.4)	

<sup>&</sup>lt;sup>a</sup> Missing family planning area data from three facilities at the baseline

Table B5.2: Family planning services provision, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Offers family planning services	7	100	(59 - 100)	7	85.7	(42.1 - 99.6)	
Family planning area							
Visual and auditory privacy	7	100	(59 - 100)	7	85.7	(42.1 - 99.6)	
Non private area	7	0	(0 - 41)	7	0.0	(0 - 41)	
Visual privacy only	7	0	(0 - 41)	7	14.3	(0.4 - 57.9)	
Other	7	0	(0 - 41)	7	0.0	(0 - 41)	
Do not provide service	7	0	(0 - 41)	7	0.0	(0 - 41)	

Table B5.3: Family planning services provision, complete facilities

		Ва	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Offers family planning services	4	100	(39.8 - 100)	1	0	(0 - 97.5)
Family planning area						
Visual and auditory privacy	3	100	(29.2 - 100)	1	100	(2.5 - 100)
Non private area	3	0	(0 - 70.8)	1	0	(0 - 97.5)
Visual privacy only	3	0	(0 - 70.8)	1	0	(0 - 97.5)
Other	3	0	(0 - 70.8)	1	0	(0 - 97.5)
Do not provide service	3	0	(0 - 70.8)	1	0	(0 - 97.5)

<sup>&</sup>lt;sup>a</sup> Missing family planning area data from one facility at the baseline



Table B5.4: Family planning services composite indicator, ambulatory facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
All methods observed day of survey:	14	85.7	(57.2 - 98.2)	20	90	(68.3 - 98.8)
Male condom	14	92.9	(66.1 - 99.8)	20	95	(75.1 - 99.9)
Oral contraceptive pill	14	85.7	(57.2 - 98.2)	20	90	(68.3 - 98.8)
Injectable	14	85.7	(57.2 - 98.2)	20	100	(83.2 - 100)
Family planning services according to standard	14	78.6	(49.2 - 95.3)	20	65	(40.8 - 84.6)

<sup>&</sup>lt;sup>a</sup> Family planning according to the standard includes no stock out of male condoms, pills, and injectables in the last three months

Table B5.5: Family planning services composite indicator, basic facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
All methods observed day of survey:	6	16.7	(0.4 - 64.1)	7	28.6	(3.7 - 71)	
Male condom	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)	
Oral contraceptive pill	6	66.7	(22.3 - 95.7)	7	85.7	(42.1 - 99.6)	
Injectable	6	50.0	(11.8 - 88.2)	7	100.0	(59 - 100)	
Intrauterine device	6	33.3	(4.3 - 77.7)	7	42.9	(9.9 - 81.6)	
Intrauterine device insertion kit	6	33.3	(4.3 - 77.7)	7	85.7	(42.1 - 99.6)	
Family planning services according to standard	6	16.7	(0.4 - 64.1)	7	14.3	(0.4 - 57.9)	

<sup>&</sup>lt;sup>a</sup> Family planning accoding to the stand includes iud insertion kits available on the day of the survey + no stock out of male condoms, pills, injectables, and IUDs on the day of the survey



Table B5.6: Family planning services composite indicator, complete facilities

		Ва	seline	Second Follow-Up		
	N	%	CI	N	%	CI
All methods observed day of survey:	2	100	(15.8 - 100)	1	100	(2.5 - 100)
Male condom	2	100	(15.8 - 100)	1	100	(2.5 - 100)
Oral contraceptive pill	2	100	(15.8 - 100)	1	100	(2.5 - 100)
Injectable	2	100	(15.8 - 100)	1	100	(2.5 - 100)
Intrauterinedevice	2	100	(15.8 - 100)	1	100	(2.5 - 100)
Intrauterine device insertion kit	2	100	(15.8 - 100)	1	100	(2.5 - 100)
All methods continuously available in past	2	50	(1.3 - 98.7)	1	100	(2.5 - 100)
three months						
Doctor trained in tubal ligation	2	100	(15.8 - 100)	1	100	(2.5 - 100)
Doctor trained in vasectomy	2	50	(1.3 - 98.7)	1	100	(2.5 - 100)
Family planning services according to standard	2	50	(1.3 - 98.7)	1	100	(2.5 - 100)

<sup>&</sup>lt;sup>a</sup> Family planning accoding to the stand includes iud insertion kits available on the day of the survey + no stock out of male condoms, pills, injectables, and IUDs on the day of the survey + doctor trained in tuballigation and vasectomy

Table B5.7: Family planning methods observed, ambulatory facilities

		Bas	seline		Second Follow-Up			
	N	%	CI	N	%	CI		
Male condom	14	92.9	(66.1 - 99.8)	20	95.0	(75.1 - 99.9)		
Female condom	14	21.4	(4.7 - 50.8)	20	65.0	(40.8 - 84.6)		
Oral contraceptive pill	14	85.7	(57.2 - 98.2)	20	90.0	(68.3 - 98.8)		
Injectable	14	85.7	(57.2 - 98.2)	20	100.0	(83.2 - 100)		
Implant	-	-	-	20	85.0	(62.1 - 96.8)		
Intrauterine device	14	42.9	(17.7 - 71.1)	20	60.0	(36.1 - 80.9)		
Emergency contraceptive pill	14	28.6	(8.4 - 58.1)	20	50.0	(27.2 - 72.8)		
Spermicide	14	0.0	(0 - 23.2)	20	0.0	(0 - 16.8)		
Diaphragm	14	0.0	(0 - 23.2)	20	0.0	(0 - 16.8)		
Doctor trained to insert IUD	17	64.7	(38.3 - 85.8)	22	72.7	(49.8 - 89.3)		
Nurse trained to insert IUD	-	-	-	22	54.5	(32.2 - 75.6)		
Doctor trained to place implant	-	-	-	22	72.7	(49.8 - 89.3)		
Nurse trained to place implant	-	-	-	22	72.7	(49.8 - 89.3)		

<sup>&</sup>lt;sup>a</sup> Implant not captured at ambulatory facilities at the baseline

<sup>&</sup>lt;sup>b</sup> The baseline and first follow-up data did not capture if the facility has a trained doctor for implants, or a nurse for implants or IUD insertion



Table B5.8: Family planning methods observed, basic facilities

		Ва	seline		Second Follow-Up			
	N	%	CI	N	%	CI		
Male condom	6	83.3	(35.9 - 99.6)	7	100.0	(59 - 100)		
Female condom	6	50.0	(11.8 - 88.2)	7	57.1	(18.4 - 90.1)		
Oral contraceptive pill	6	66.7	(22.3 - 95.7)	7	85.7	(42.1 - 99.6)		
Injectable	6	50.0	(11.8 - 88.2)	7	100.0	(59 - 100)		
Implant	6	16.7	(0.4 - 64.1)	7	100.0	(59 - 100)		
Intrauterine device	6	33.3	(4.3 - 77.7)	7	42.9	(9.9 - 81.6)		
IUD insertion kit	6	33.3	(4.3 - 77.7)	7	85.7	(42.1 - 99.6)		
Emergency contraceptive pill	6	16.7	(0.4 - 64.1)	7	42.9	(9.9 - 81.6)		
Spermicide	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)		
Diaphragm	6	0.0	(0 - 45.9)	7	0.0	(0 - 41)		
Doctor trained to insert IUD	-	-	-	6	100.0	(54.1 - 100)		
Nurse trained to insert IUD	-	-	-	6	83.3	(35.9 - 99.6)		
Doctor trained to place implant	-	-	-	6	100.0	(54.1 - 100)		
Nurse trained to place implant	-	-	-	6	100.0	(54.1 - 100)		
Trained doctor for tubal ligation	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)		
Trained doctor for vasectomy	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)		

<sup>&</sup>lt;sup>a</sup> Data on trained doctors and nurses for IUD and implant insertion was not captured at basic and complete facilities at the baseline and first follow-up

Table B5.9: Family planning methods observed, complete facilities

		Bas	eline	S	Second Follow-Up			
	N	%	CI	N	%	CI		
Male condom	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)		
Female condom	3	0.0	(0 - 70.8)	1	100	(2.5 - 100)		
Oral contraceptive pill	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)		
Injectable	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)		
Implant	3	0.0	(0 - 70.8)	1	100	(2.5 - 100)		
Intrauterine device	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)		
IUD insertion kit	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)		
Emergency contraceptive pill	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)		
Spermicide	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)		
Diaphragm	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)		
Doctor trained to insert IUD	-	-	-	-	-	-		
Nurse trained to insert IUD	-	-	-	-	-	-		
Doctor trained to place implant	-	-	-	-	-	-		
Nurse trained to place implant	-	-	-	-	-	-		
Trained doctor for tubal ligation	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)		
Trained doctor for vasectomy	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)		

<sup>&</sup>lt;sup>a</sup> Data on trained doctors and nurses for IUD and implant insertion was not captured at basic and complete facilities at the baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Data on trained doctor/nurse for IUD and implant insertion missing for one facility at the second follow-up due to survey logic.



Table B6.1: Antenatal care service provision, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Offers antenatal care services	19	94.7	(74 - 99.9)	22	100.0	(84.6 - 100)	
Antenatal care area							
Visual and auditory privacy	18	88.9	(65.3 - 98.6)	22	95.5	(77.2 - 99.9)	
Visual privacy only	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	
Non private area	18	11.1	(1.4 - 34.7)	22	4.5	(0.1 - 22.8)	
Other	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	
Do not provide service	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)	

<sup>&</sup>lt;sup>a</sup> ANC room data missing from one facility at the baseline

Table B6.2: Antenatal care and delivery service provision, basic facilities

		Bas	eline		SecondFollow-Up		
	N	%	CI	N	%	CI	
Offers antenatal care services	7	100.0	(59 - 100)	7	85.7	(42.1 - 99.6)	
Offers (non-urgent) delivery services	7	85.7	(42.1 - 99.6)	7	85.7	(42.1 - 99.6)	
Antenatal care area							
Visual and auditory privacy	7	100.0	(59 - 100)	7	100.0	(59 - 100)	
Visual privacy only	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Non private area	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Other	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Do not provide service	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Delivery area							
Visual and auditory privacy	7	100.0	(59 - 100)	7	100.0	(59 - 100)	
Visual privacy only	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Non private area	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Other	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Do not provide service	7	0.0	(0 - 41)	7	0.0	(0 - 41)	



Table B6.3: Antenatal care and delivery service provision, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Offers antenatal care services	4	100	(39.8 - 100)	1	0	(0 - 97.5)	
Offers (non-urgent) delivery services	3	100	(29.2 - 100)	1	100	(2.5 - 100)	
Antenatal care area							
Visual and auditory privacy	3	100	(29.2 - 100)	1	100	(2.5 - 100)	
Visual privacy only	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Non private area	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Other	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Do not provide service	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Delivery area							
Visual and auditory privacy	3	100	(29.2 - 100)	1	100	(2.5 - 100)	
Visual privacy only	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Non private area	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Other	3	0	(0 - 70.8)	1	0	(0 - 97.5)	
Do not provide service	3	0	(0 - 70.8)	1	0	(0 - 97.5)	

<sup>&</sup>lt;sup>a</sup> Delivery area data missing from one facility at baseline.

Table B6.4: ANC and PPC equipment observed and functional, ambulatory facilities

		Base	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Scale	18	94.4	(72.7 - 99.9)	22	95.5	(77.2 - 99.9)	
Height rod	18	94.4	(72.7 - 99.9)	22	100.0	(84.6 - 100)	
Gynecological exam table	17	76.5	(50.1 - 93.2)	22	90.9	(70.8 - 98.9)	
Lamp	18	55.6	(30.8 - 78.5)	22	77.3	(54.6 - 92.2)	
CLAP / measuring tape	18	22.2	(6.4 - 47.6)	22	90.9	(70.8 - 98.9)	
Blood pressure apparatus	18	72.2	(46.5 - 90.3)	22	90.9	(70.8 - 98.9)	
Stethoscope	18	77.8	(52.4 - 93.6)	22	100.0	(84.6 - 100)	
Maternal history card	18	100.0	(81.5 - 100)	22	95.5	(77.2 - 99.9)	
ANC card	18	94.4	(72.7 - 99.9)	22	90.9	(70.8 - 98.9)	
All ANC/PPC equipment observed and functional	18	16.7	(3.6 - 41.4)	22	54.5	(32.2 - 75.6)	



Table B6.5: ANC and PPC equipment observed and functional, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Scale	7	100.0	(59 - 100)	7	100.0	(59 - 100)	
Height rod	7	100.0	(59 - 100)	7	100.0	(59 - 100)	
Gynecological exam table	7	100.0	(59 - 100)	7	100.0	(59 - 100)	
Lamp	7	71.4	(29 - 96.3)	7	85.7	(42.1 - 99.6)	
CLAP / measuring tape	7	0.0	(0 - 41)	7	100.0	(59 - 100)	
Blood pressure apparatus	7	85.7	(42.1 - 99.6)	7	100.0	(59 - 100)	
Stethoscope	7	71.4	(29 - 96.3)	7	100.0	(59 - 100)	
Maternal history card	7	100.0	(59 - 100)	7	85.7	(42.1 - 99.6)	
ANC card	7	100.0	(59 - 100)	7	71.4	(29 - 96.3)	
Intrauterine device kit	7	42.9	(9.9 - 81.6)	7	85.7	(42.1 - 99.6)	
All ANC/PPC equipment observed and functional	7	0.0	(0 - 41)	7	71.4	(29 - 96.3)	

Table B6.6: ANC and PPC equipment observed and functional, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Scale	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	
Height rod	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	
Gynecological exam table	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	
Lamp	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	
CLAP / measuring tape	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Blood pressure apparatus	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Stethoscope	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Maternal history card	3	100.0	(29.2 - 100)	1	0	(0 - 97.5)	
ANC card	3	66.7	(9.4 - 99.2)	1	0	(0 - 97.5)	
Intrauterine device kit	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	
All ANC/PPC equipment observed and	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)	
functional							



Table B6.7: ANC and PPC drugs observed, ambulatory facilities

		Bas	seline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Multivitamins/(Iron + Folic acid	18	77.8	(52.4 - 93.6)	22	95.5	(77.2 - 99.9)	
Ayre's palettes	13	46.2	(19.2 - 74.9)	17	88.2	(63.6 - 98.5)	
Slides	13	61.5	(31.6 - 86.1)	17	88.2	(63.6 - 98.5)	
Nitrofurantoin	13	61.5	(31.6 - 86.1)	17	47.1	(23 - 72.2)	
Erythromycin/Ampicillin/Penicillin	13	92.3	(64 - 99.8)	17	94.1	(71.3 - 99.9)	
Tetanus vaccine (if facility stores vaccines)	5	60.0	(14.7 - 94.7)	6	100.0	(54.1 - 100)	
All drugs observed on the day of the suvey	18	38.9	(17.3 - 64.3)	22	45.5	(24.4 - 67.8)	
All drugs available on the day of the survey + no stock out in the last 3 months	18	38.9	(17.3 - 64.3)	22	22.7	(7.8 - 45.4)	

<sup>&</sup>lt;sup>a</sup> Ambulatory facilities without a doctor only required to have multivitamins / (iron + folic acid). Tetanus vaccine only required if an ambulatory facility with a doctor stores vaccines.

Table B6.8: ANC and PPC drugs observed, basic facilities

		Ba	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Multivitamins/(Iron + Folic acid	7	85.7	(42.1 - 99.6)	7	100.0	(59 - 100)	
Ayre's palettes	7	14.3	(0.4 - 57.9)	7	85.7	(42.1 - 99.6)	
Slides	7	0.0	(0 - 41)	7	57.1	(18.4 - 90.1)	
Nitrofurantoin	7	42.9	(9.9 - 81.6)	7	42.9	(9.9 - 81.6)	
Cephalexin	7	14.3	(0.4 - 57.9)	7	57.1	(18.4 - 90.1)	
Tetanus vaccine (if facility stores vaccines)	3	0.0	(0 - 70.8)	4	100.0	(39.8 - 100)	
All drugs observed on the day of the suvey	7	0.0	(0 - 41)	7	14.3	(0.4 - 57.9)	
All drugs available on the day of the survey + no stock out in the last 3 months	7	0.0	(0 - 41)	7	0.0	(0 - 41)	

<sup>&</sup>lt;sup>a</sup> Tetanus vaccine only required if facility stores vaccines.

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table B6.9: ANC and PPC drugs observed, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Multivitamins/(Iron + Folic acid	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	
Ayre's palettes	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
Slides	3	66.7	(9.4 - 99.2)	1	0	(0 - 97.5)	
Nitrofurantoin	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Cephalexin	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Tetanus vaccine (if facility stores vaccines)	2	100.0	(15.8 - 100)	1	100	(2.5 - 100)	
All drugs observed on the day of the suvey	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)	
All drugs available on the day of the survey + no stock out in the last 3 months	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)	

<sup>&</sup>lt;sup>a</sup> Tetanus vaccine only required if facility stores vaccines.

Table B6.10: ANC and PPC laboratory inputs, basic facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Rapid HIV test	3	100.0	(29.2 - 100)	5	80	(28.4 - 99.5)
Rapid syphilis test	3	100.0	(29.2 - 100)	5	80	(28.4 - 99.5)
Urinalysis	3	100.0	(29.2 - 100)	5	100	(47.8 - 100)
Glucometer	3	100.0	(29.2 - 100)	5	80	(28.4 - 99.5)
Cell counter	3	66.7	(9.4 - 99.2)	5	80	(28.4 - 99.5)
Microcuvettes	3	0.0	(0 - 70.8)	5	20	(0.5 - 71.6)
Pregnancy test	3	100.0	(29.2 - 100)	5	100	(47.8 - 100)
Blood type antibodies	3	100.0	(29.2 - 100)	5	100	(47.8 - 100)
RH factor antibodies	3	100.0	(29.2 - 100)	5	100	(47.8 - 100)
All lab inputs observed on the day of the survey	3	0.0	(0 - 70.8)	5	0	(0 - 52.2)
All lab inputs observed on the day of the survey + no stock out of Rh factor antibodies in the last 3 months	3	0.0	(0 - 70.8)	5	0	(0 - 52.2)

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table B6.11: ANC and PPC laboratory inputs, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Rapid HIV test	2	0	(0 - 84.2)	1	100	(2.5 - 100)	
Rapid syphilis test	2	100	(15.8 - 100)	1	0	(0 - 97.5)	
Urinalysis	2	50	(1.3 - 98.7)	1	100	(2.5 - 100)	
Glucometer	2	0	(0 - 84.2)	1	100	(2.5 - 100)	
Cell counter	2	0	(0 - 84.2)	1	100	(2.5 - 100)	
Blood type antibodies	2	100	(15.8 - 100)	1	100	(2.5 - 100)	
RH factor antibodies	2	100	(15.8 - 100)	1	100	(2.5 - 100)	
All lab inputs observed on the day of the survey	2	0	(0 - 84.2)	1	0	(0 - 97.5)	
All lab inputs observed on the day of the survey + no stock out of Rh factor antibodies in the last 3 months	2	0	(0 - 84.2)	1	0	(0 - 97.5)	

Table B6.12: ANC and PPC composite indicator, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
All ANC/PPC equipment observed and functional	18	16.7	(3.6 - 41.4)	22	54.5	(32.2 - 75.6)	
All drugs available on the day of the survey	18	38.9	(17.3 - 64.3)	22	45.5	(24.4 - 67.8)	
All drugs available on the day of the survey + the last 3 months	18	38.9	(17.3 - 64.3)	22	22.7	(7.8 - 45.4)	
ANC/PPC according to standard	18	5.6	(0.1 - 27.3)	22	18.2	(5.2 - 40.3)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B6.13: ANC and PPC composite indicator, basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
All ANC/PPC equipment observed and functional	7	0	(0 - 41)	7	71.4	(29 - 96.3)	
All drugs available on the day of the survey	7	0	(0 - 41)	7	14.3	(0.4 - 57.9)	
All drugs available on the day of the survey + the last 3 months	7	0	(0 - 41)	7	0.0	(0 - 41)	
All lab inputs observed on the day of the survey	3	0	(0 - 70.8)	5	0.0	(0 - 52.2)	
All lab inputs available on the day of the survey + last 3 months	3	0	(0 - 70.8)	5	0.0	(0 - 52.2)	
ANC/PPC according to standard	7	0	(0 - 41)	7	0.0	(0 - 41)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table B6.14: ANC and PPC composite indicator, complete facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
All ANC/PPC equipment observed and functional	3	0	(0 - 70.8)	1	0	(0 - 97.5)
All drugs available on the day of the survey	3	0	(0 - 70.8)	1	0	(0 - 97.5)
All drugs available on the day of the survey + the last 3 months	3	0	(0 - 70.8)	1	0	(0 - 97.5)
All lab inputs observed on the day of the survey	2	0	(0 - 84.2)	1	0	(0 - 97.5)
All lab inputs available on the day of the survey + last 3 months	2	0	(0 - 84.2)	1	0	(0 - 97.5)
ANC/PPC according to standard	3	0	(0 - 70.8)	1	0	(0 - 97.5)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B6.15: ANC timeliness, medical records from ambulatory facilities

		Base	eline	9	Second Follow-Up			
	N	N % CI			%	CI		
First ANC visit within 12 weeks	21	33.3	(14.6 - 57)	125	25.6	(18.2 - 34.2)		

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first and second follow-up, gestational age was reported in the record

Table B6.16: ANC timeliness, medical records from basic facilities

		Bas	seline		Second	Follow-Up
	N	%	CI	N	%	CI
First ANC visit within 12 weeks	45	35.6	(21.9 - 51.2)	39	33.3	(19.1 - 50.2)

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first and second follow-up, gestational age was reported in the record

Table B6.17: ANC timeliness, medical records from complete facilities

		Bas	eline
	N	%	CI
First ANC visit within 12 weeks	1	100	(2.5 - 100)

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first follow-up, gestational age was reported in the record



Figure B6.1: Histogram comparison of first ANC visit, by collection period

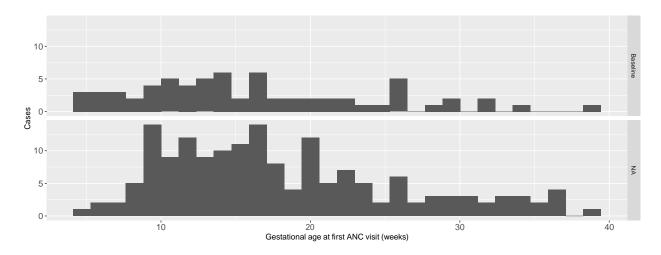


Table B6.18: At least five ANC visits to standard, medical records from ambulatory facilities

		Bas	seline	SecondFollow-Up			
	N	%	CI	N	%	CI	
At least five ANC visits	21	61.9	(38.4 - 81.9)	128	37.5	(29.1 - 46.5)	
All appropriate checks performed, at least	21	71.4	(47.8 - 88.7)	128	28.9	(21.2 - 37.6)	
five ANC visits							
All lab tests performed at least once	21	19.0	(5.4 - 41.9)	128	14.1	(8.6 - 21.3)	
during pregnancy:							
Blood glucose	21	19.0	(5.4 - 41.9)	128	36.7	(28.4 - 45.7)	
HIV test	21	28.6	(11.3 - 52.2)	128	25.8	(18.5 - 34.3)	
Hemoglobin	21	23.8	(8.2 - 47.2)	128	32.8	(24.8 - 41.7)	
Urinalysis	21	19.0	(5.4 - 41.9)	128	27.3	(19.8 - 35.9)	
Antenatal care performed according to standard	21	0.0	(0 - 16.1)	128	7.0	(3.3 - 12.9)	

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

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<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks and fundal height were captured only if gestational age at the first visit was eligible



Table B6.19: At least four ANC visits to standard, medical records from ambulatory facilities

		Bas	seline	9	econd F	ollow-Up
	N	%	CI	N	%	CI
At least four ANC visits	22	68.2	(45.1 - 86.1)	128	57.0	(48 - 65.7)
All appropriate checks performed, at least	22	36.4	(17.2 - 59.3)	128	16.4	(10.5 - 24)
four ANC visits						
All lab tests performed at least once	22	13.6	(2.9 - 34.9)	128	1.6	(0.2 - 5.5)
during pregnancy:						
Blood group	22	31.8	(13.9 - 54.9)	128	20.3	(13.7 - 28.3)
Rh factor	22	31.8	(13.9 - 54.9)	128	20.3	(13.7 - 28.3)
Blood glucose	22	18.2	(5.2 - 40.3)	128	36.7	(28.4 - 45.7)
HIV test	22	27.3	(10.7 - 50.2)	128	25.8	(18.5 - 34.3)
Platelet count	22	18.2	(5.2 - 40.3)	128	31.2	(23.4 - 40)
Uric acid in blood	22	18.2	(5.2 - 40.3)	128	7.8	(3.8 - 13.9)
Uric acid in urine	22	13.6	(2.9 - 34.9)	128	3.1	(0.9 - 7.8)
Syphilis test (VDRL / RPR*)	22	27.3	(10.7 - 50.2)	128	25.8	(18.5 - 34.3)
Hemoglobin	22	22.7	(7.8 - 45.4)	128	32.8	(24.8 - 41.7)
Urinalysis	22	18.2	(5.2 - 40.3)	128	27.3	(19.8 - 35.9)
Antenatal care performed according to standard	22	0.0	(0 - 15.4)	128	0.0	(0 - 2.8)

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

Table B6.20: At least four ANC visits to standard, medical records from basic facilities

		Bas	seline		Second	Follow-Up
	N	%	CI	N	%	CI
At least four ANC visits	49	75.5	(61.1 - 86.7)	41	85.4	(70.8 - 94.4)
All appropriate checks performed, at least	49	42.9	(28.8 - 57.8)	41	34.1	(20.1 - 50.6)
four ANC visits						
All lab tests performed at least once	49	32.7	(19.9 - 47.5)	41	53.7	(37.4 - 69.3)
during pregnancy:						
Blood group	49	46.9	(32.5 - 61.7)	41	70.7	(54.5 - 83.9)
Rh factor	49	49.0	(34.4 - 63.7)	41	70.7	(54.5 - 83.9)
Blood glucose	49	59.2	(44.2 - 73)	41	78.0	(62.4 - 89.4)
Syphilis test (VDRL / RPR*)	49	46.9	(32.5 - 61.7)	41	85.4	(70.8 - 94.4)
Hemoglobin	49	40.8	(27 - 55.8)	41	82.9	(67.9 - 92.8)
Urinalysis	49	55.1	(40.2 - 69.3)	41	75.6	(59.7 - 87.6)
Antenatal care performed according to	49	14.3	(5.9 - 27.2)	41	9.8	(2.7 - 23.1)
standard						

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks were captured only if gestational age at the first visit was eligible

<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks were captured only if gestational age at the first visit was eligible



Table B6.21: At least four ANC visits to standard, medical records from complete facilities

		Bas	eline
	N	%	CI
At least four ANC visits	1	100	(2.5 - 100)
All appropriate checks performed, at least	1	0	(0 - 97.5)
four ANC visits			
All lab tests performed at least once	1	0	(0 - 97.5)
during pregnancy:			
Blood group	1	0	(0 - 97.5)
Rh factor	1	0	(0 - 97.5)
Bloodglucose	1	0	(0 - 97.5)
Syphilis test (VDRL / RPR*)	1	0	(0 - 97.5)
Hemoglobin	1	0	(0 - 97.5)
Urinalysis	1	0	(0 - 97.5)
Antenatal care performed according to	1	0	(0 - 97.5)
standard			

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

Table B6.22: DEL equipment observed and functional, basic facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Serum equipment (macrogotero & microgoter)	7	57.1	(18.4 - 90.1)	7	71.4	(29 - 96.3)	
Sterile blankets for the newborn	7	57.1	(18.4 - 90.1)	7	85.7	(42.1 - 99.6)	
Neonatal nasogastric tube	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)	
Sterile IV catheter No. 18	7	85.7	(42.1 - 99.6)	7	85.7	(42.1 - 99.6)	
Metal clamp/umbilical tape	7	85.7	(42.1 - 99.6)	7	85.7	(42.1 - 99.6)	
All DEL equipment observed and functional	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)	

<sup>&</sup>lt;sup>a</sup> Neonatal nasogastric tube K33 measured at baseline

Table B6.23: DEL equipment observed and functional, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Serum equipment (macrogotero & microgoter)	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)
Sterile blankets for the newborn	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)
Neonatal nasogastric tube	3	33.3	(0.8 - 90.6)	1	100	(2.5 - 100)
Sterile IV catheter No. 18	3	66.7	(9.4 - 99.2)	1	0	(0 - 97.5)
Metal clamp/umbilical tape	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)
All DEL equipment observed and functional	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)

<sup>&</sup>lt;sup>a</sup> Neonatal nasogastric tube K33 measured at baseline

<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks were captured only if gestational age at the first visit was eligible



Table B6.24: DEL drugs, basic facilities

		Ва	seline	Second Follow-Up				
	N	%	CI	N	%	CI		
Ergonovine/ergometrine/oxytocin	7	57.1	(18.4 - 90.1)	7	42.9	(9.9 - 81.6)		
Povidone-iodine	7	0.0	(0 - 41)	7	100.0	(59 - 100)		
Insulin syringe	7	42.9	(9.9 - 81.6)	7	85.7	(42.1 - 99.6)		
Lidocaine without epinephrine (simple lidocaine)	7	71.4	(29 - 96.3)	7	85.7	(42.1 - 99.6)		
Hyoscine butylbromide/Butylscopolamine	7	28.6	(3.7 - 71)	7	71.4	(29 - 96.3)		
Ringer's lactate/Hartmann's/Saline solution	7	28.6	(3.7 - 71)	7	100.0	(59 - 100)		
Ophthalmic chloramphenicol drops/1% silver nitrate/oxytetracycline opthalmic	7	57.1	(18.4 - 90.1)	7	28.6	(3.7 - 71)		
Vitamin K/Phytonadione	7	57.1	(18.4 - 90.1)	7	14.3	(0.4 - 57.9)		
All drugs available on the day of the survey	7	0.0	(0 - 41)	7	0.0	(0 - 41)		
All drugs available on the day of the survey + last three months	7	0.0	(0 - 41)	7	0.0	(0 - 41)		

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B6.25: DEL drugs, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Ergonovine/ergometrine/oxytocin	3	100.0	(29.2 - 100)	1	0	(0 - 97.5)	
Povidone-iodine	3	33.3	(0.8 - 90.6)	1	100	(2.5 - 100)	
Insulin syringe	3	33.3	(0.8 - 90.6)	1	100	(2.5 - 100)	
Lidocaine without epinephrine (simple	3	100.0	(29.2 - 100)	1	0	(0 - 97.5)	
lidocaine)							
Hyoscine butylbromide/Butylscopolamine	3	66.7	(9.4 - 99.2)	1	100	(2.5 - 100)	
Ringer's lactate/Hartmann's/Saline	3	100.0	(29.2 - 100)	1	100	(2.5 - 100)	
solution							
Ophthalmic chloramphenicol drops/1%	3	100.0	(29.2 - 100)	1	0	(0 - 97.5)	
silver nitrate/oxytetracycline opthalmic							
Vitamin K/Phytonadione	3	100.0	(29.2 - 100)	1	0	(0 - 97.5)	
All drugs available on the day of the	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
survey							
All drugs available on the day of the	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)	
survey + last three months						·	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table B6.26: DEL composite indicator, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
All DEL equipment observed and functional	7	14.3	(0.4 - 57.9)	7	42.9	(9.9 - 81.6)	
All drugs available on the day of the survey	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
All drugs available on the day of the survey + the last 3 months	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
DEL according to standard	7	0.0	(0 - 41)	7	0.0	(0 - 41)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B6.27: DEL composite indicator, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
All DEL equipment observed and functional	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)
All drugs available on the day of the survey	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)
All drugs available on the day of the survey + the last 3 months	3	33.3	(0.8 - 90.6)	1	0	(0 - 97.5)
DEL according to standard	3	0.0	(0 - 70.8)	1	0	(0 - 97.5)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B6.28: Sociocultural adaption, complete facilities

		Ва	seline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Facility adapts services to the sociocultural conditions of women at delivery	4	50	(6.8 - 93.2)	1	100	(2.5 - 100)	

Table B6.29: Cesarean section prevalence monitoring indicator, complete facilities

Evaluation	Total # of C-sections	Total # of deliveries	C-section prevalence in past two years
Baseline	3586	8572	41.8%
Second Follow-up	3560	8699	40.9%

<sup>&</sup>lt;sup>a</sup> Data collected where available from five facilities for the baseline time period and seven facilities for the second follow-up time period.



Table B6.30: Active management of third stage of labor, medical records from basic facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Oxytocin administered	74	59.5	(47.4 - 70.7)	73	89.0	(79.5 - 95.1)
Otheruterotonicadministered	74	0.0	(0 - 4.9)	73	1.4	(0 - 7.4)
Active management of third stage of labor according to standard	74	59.5	(47.4 - 70.7)	73	90.4	(81.2 - 96.1)

Table B6.31: Active management of third stage of labor, medical records from complete facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Oxytocin administered	67	64.2	(51.5 - 75.5)	30	100	(88.4 - 100)	
Otheruterotonicadministered	67	1.5	(0 - 8)	30	0	(0 - 11.6)	
Active management of third stage of labor according to standard	67	65.7	(53.1 - 76.8)	30	100	(88.4 - 100)	

Table B6.32: Immediate neonate postpartum care, medical records from basic facilities

		Bas	seline	Second Follow-Up						
	N	%	CI	N	%	CI				
Checked four times in the first hour & twice in the second hour:										
Blood pressure	75	0.0	(0 - 4.8)	72	18.1	(10 - 28.9)				
Temperature	75	0.0	(0 - 4.8)	72	16.7	(8.9 - 27.3)				
Heart rate / pulse	75	0.0	(0 - 4.8)	72	18.1	(10 - 28.9)				
Respiratory rate	75	1.3	(0 - 7.2)	72	18.1	(10 - 28.9)				
All checks at discharge	75	38.7	(27.6 - 50.6)	72	91.7	(82.7 - 96.9)				
Immediate maternal PPC to standard	75	0.0	(0 - 4.8)	72	15.3	(7.9 - 25.7)				

<sup>&</sup>lt;sup>a</sup> Heart rate not captured as an alternative at baseline and first follow-up

Table B6.33: Immediate neonate postpartum care, medical records from complete facilities

		Base	eline	Second Follow-Up					
	N	%	CI	N	%	CI			
Checked four times in the first hour & twice in the second hour:									
Blood pressure	68	0.0	(0 - 5.3)	30	0	(0 - 11.6)			
Temperature	68	0.0	(0 - 5.3)	30	0	(0 - 11.6)			
Heart rate / pulse	68	0.0	(0 - 5.3)	30	0	(0 - 11.6)			
Respiratory rate	68	0.0	(0 - 5.3)	30	0	(0 - 11.6)			
All checks at discharge	68	51.5	(39 - 63.8)	30	100	(88.4 - 100)			
Immediate maternal PPC to standard	68	0.0	(0 - 5.3)	30	0	(0 - 11.6)			

<sup>&</sup>lt;sup>a</sup> Heart rate not captured as an alternative at baseline and first follow-up



Table B6.34: Immediate neonate postpartum care, medical records from basic facilities

		Bas	seline		Second Follow-Up			
	N	%	CI	N	%	CI		
Vitamin K	37	62.2	(44.8 - 77.5)	72	94.4	(86.4 - 98.5)		
Application of prophylaxis with oxytetracycline ophthalmic/chloramphenicol	37	64.9	(47.5 - 79.8)	72	98.6	(92.5 - 100)		
Curing the umbilical cord with water and chlorhexidine	37	48.6	(31.9 - 65.6)	72	61.1	(48.9 - 72.4)		
Evaluation for the presence of malformations	37	45.9	(29.5 - 63.1)	72	98.6	(92.5 - 100)		
Skin evaluation	37	56.8	(39.5 - 72.9)	72	98.6	(92.5 - 100)		
BCG vaccine	37	24.3	(11.8 - 41.2)	72	56.9	(44.7 - 68.6)		
APGAR score (1 or 5 minutes)	37	54.1	(36.9 - 70.5)	72	90.3	(81 - 96)		
Pulse/heart rate	37	43.2	(27.1 - 60.5)	72	97.2	(90.3 - 99.7)		
Respiratory rate	37	37.8	(22.5 - 55.2)	72	95.8	(88.3 - 99.1)		
Weight	37	48.6	(31.9 - 65.6)	72	98.6	(92.5 - 100)		
Height	37	51.4	(34.4 - 68.1)	72	98.6	(92.5 - 100)		
Head circumference	37	16.2	(6.2 - 32)	72	97.2	(90.3 - 99.7)		
Immediate neonate PPC to standard	37	8.1	(1.7 - 21.9)	72	48.6	(36.7 - 60.7)		

Table B6.35: Immediate neonate postpartum care, medical records from complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vitamin K	50	70	(55.4 - 82.1)	30	100.0	(88.4 - 100)	
Application of prophylaxis with	50	58	(43.2 - 71.8)	30	100.0	(88.4 - 100)	
oxytetracycline							
ophthalmic/chloramphenicol							
Curing the umbilical cord with water and	50	52	(37.4 - 66.3)	30	30.0	(14.7 - 49.4)	
chlorhexidine							
Evaluation for the presence of	50	46	(31.8 - 60.7)	30	100.0	(88.4 - 100)	
malformations							
Skin evaluation	50	50	(35.5 - 64.5)	30	100.0	(88.4 - 100)	
BCG vaccine	50	38	(24.7 - 52.8)	30	86.7	(69.3 - 96.2)	
APGAR score (1 or 5 minutes)	50	82	(68.6 - 91.4)	30	100.0	(88.4 - 100)	
Pulse/heart rate	50	66	(51.2 - 78.8)	30	96.7	(82.8 - 99.9)	
Respiratory rate	50	68	(53.3 - 80.5)	30	96.7	(82.8 - 99.9)	
Weight	50	70	(55.4 - 82.1)	30	100.0	(88.4 - 100)	
Height	50	68	(53.3 - 80.5)	30	100.0	(88.4 - 100)	
Head circumference	50	58	(43.2 - 71.8)	30	96.7	(82.8 - 99.9)	
Immediate neonate PPC to standard	50	22	(11.5 - 36)	30	26.7	(12.3 - 45.9)	



Table B7.1: Emergency care provision, second follow-up evaluation, basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Visual and auditory privacy	3	66.7	(9.4 - 99.2)	7	100	(59 - 100)	
Visual privacy only	3	0.0	(0 - 70.8)	7	0	(0 - 41)	
Non-private area	3	0.0	(0 - 70.8)	7	0	(0 - 41)	
Other	3	0.0	(0 - 70.8)	7	0	(0 - 41)	
Do not provide service	3	0.0	(0 - 70.8)	7	0	(0 - 41)	

<sup>&</sup>lt;sup>a</sup> Missing emergency room data from four facilities at the baseline

Table B7.2: Emergency care provision, second follow-up evaluation, complete facilities

		Bas	eline	Second Follow-Up				
	N	%	CI	Ν	%	CI		
Visual and auditory privacy	1	0	(0 - 97.5)	1	100	(2.5 - 100)		
Visual privacy only	1	0	(0 - 97.5)	1	0	(0 - 97.5)		
Non-private area	1	100	(2.5 - 100)	1	0	(0 - 97.5)		
Other	1	0	(0 - 97.5)	1	0	(0 - 97.5)		
Do not provide service	1	0	(0 - 97.5)	1	0	(0 - 97.5)		

<sup>&</sup>lt;sup>a</sup> Missing emergency room data from three facilities at the baseline

Table B7.3: EMG equipment observed and functional, basic facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Blood pressure apparatus	2	0	(0 - 84.2)	7	71.4	(29 - 96.3)	
Stethoscope	2	0	(0 - 84.2)	7	57.1	(18.4 - 90.1)	
Portable doppler/Pinard stethoscope	2	100	(15.8 - 100)	6	100.0	(54.1 - 100)	
Autoclave/heat sterilizer	2	100	(15.8 - 100)	7	100.0	(59 - 100)	
Oxygen tank/oxygen intake	2	0	(0 - 84.2)	7	71.4	(29 - 96.3)	
Resusitation bag for adults	2	50	(1.3 - 98.7)	7	100.0	(59 - 100)	
Resusitation bag for neonates	2	0	(0 - 84.2)	7	71.4	(29 - 96.3)	
Laryngoscope	2	0	(0 - 84.2)	7	71.4	(29 - 96.3)	
Equipment for AMEU/curettage kit	2	0	(0 - 84.2)	7	42.9	(9.9 - 81.6)	
All EMG equipment observed and functional	2	0	(0 - 84.2)	7	28.6	(3.7 - 71)	

<sup>&</sup>lt;sup>a</sup> One facility at the second follow-up did not have a functional portable doppler and was not asked about pinard stethoscope. This facility was excluded from the doppler/pinard component of the indicator



Table B7.4: EMG equipment observed and functional, complete facilities

	N	%	CI	N	%	CI
Blood pressure apparatus	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Portable doppler/Pinard stethoscope	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Autoclave/heat sterilizer	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Oxygen tank/oxygen intake	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Resusitation bag for adults	1	100	(2.5 - 100)	1	0	(0 - 97.5)
Resusitation bag for neonates	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Laryngoscope	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Equipment for AMEU/curettage kit	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Neonatal/pediatric stethoscope	1	100	(2.5 - 100)	1	0	(0 - 97.5)
Equipment for an est he sia	1	0	(0 - 97.5)	1	0	(0 - 97.5)
Kit for caesarean sections	1	0	(0 - 97.5)	1	100	(2.5 - 100)
All EMG equipment observed and functional	1	0	(0 - 97.5)	1	0	(0 - 97.5)

Table B7.5: EMG drugs, basic facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Ergonovine/ergometrine/oxytocin	2	100	(15.8 - 100)	7	42.9	(9.9 - 81.6)	
Dexamethasone/betamethasone	2	0	(0 - 84.2)	7	42.9	(9.9 - 81.6)	
Penicillin crystalline/ampicillin/amoxicillin	2	100	(15.8 - 100)	7	100.0	(59 - 100)	
Gentamicin	2	0	(0 - 84.2)	7	14.3	(0.4 - 57.9)	
Magnesium sulfate	2	0	(0 - 84.2)	7	57.1	(18.4 - 90.1)	
Hydralazine	2	0	(0 - 84.2)	7	71.4	(29 - 96.3)	
All drugs available on the day of the survey	2	0	(0 - 84.2)	7	0.0	(0 - 41)	
All drugs available on the day of the survey + last three months	2	0	(0 - 84.2)	7	0.0	(0 - 41)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table B7.6: EMG drugs, complete facilities

		Bas	seline	S	econd f	ollow-Up
	N	%	CI	N	%	CI
Ergonovine/ergometrine/oxytocin	1	100	(2.5 - 100)	1	0	(0 - 97.5)
Dexamethasone/betamethasone	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Penicillin crystalline/ampicillin/amoxicillin	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Magnesium sulfate	1	100	(2.5 - 100)	1	0	(0 - 97.5)
Hydralazine	1	100	(2.5 - 100)	1	0	(0 - 97.5)
Amikacin sulfate	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Ceftriaxone	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Chloramphenicol/metronidazole	1	0	(0 - 97.5)	1	100	(2.5 - 100)
Nifedipine	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Furosemide	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Diazepam/Midazolam	1	100	(2.5 - 100)	1	100	(2.5 - 100)
Sevoflurane/propofol	1	0	(0 - 97.5)	1	100	(2.5 - 100)
Succinylcholine chloride	1	0	(0 - 97.5)	1	100	(2.5 - 100)
(suxamethonium)/vecuronium						
All drugs available on the day of the	1	0	(0 - 97.5)	1	0	(0 - 97.5)
survey						
All drugs available on the day of the	1	0	(0 - 97.5)	1	0	(0 - 97.5)
survey + last three months						

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B7.7: EMG composite indicator, basic facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
All EMG equipment observed and functional	2	0	(0 - 84.2)	7	28.6	(3.7 - 71)
All drugs available on the day of the survey	2	0	(0 - 84.2)	7	0.0	(0 - 41)
All drugs available on the day of the survey + the last 3 months	2	0	(0 - 84.2)	7	0.0	(0 - 41)
EMG according to standard	2	0	(0 - 84.2)	7	0.0	(0 - 41)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table B7.8: EMG composite indicator, complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
All EMG equipment observed and functional	1	0	(0 - 97.5)	1	0	(0 - 97.5)	
All drugs available on the day of the survey	1	0	(0 - 97.5)	1	0	(0 - 97.5)	
All drugs available on the day of the survey + the last 3 months	1	0	(0 - 97.5)	1	0	(0 - 97.5)	
EMG according to standard	1	0	(0 - 97.5)	1	0	(0 - 97.5)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table B7.9: Uterine tamponade balloon for hemorrhage management, second follow-up evaluation

	Basic Facilities			Complete Facilities		
	N	%	CI	N	%	CI
Facility uses tamponade to managed obstetric hemorrhage	7	28.6	(3.7 - 71)	1	100	(2.5 - 100)
Туре						
Bakri	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Foley catheter	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Condom-based balloon	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Do not know	2	50.0	(1.3 - 98.7)	1	100	(2.5 - 100)
Assembly kit						
Facility has tamponade kit	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Kit commercially assembled	-	-	-	-	-	-
Kit prepared from available materials	-	-	-	-	-	-
Staff training						
Staff trained in tamponade use	7	57.1	(18.4 - 90.1)	1	100	(2.5 - 100)
Staff trained in tamponade assembly	7	42.9	(9.9 - 81.6)	1	100	(2.5 - 100)

<sup>&</sup>lt;sup>a</sup> Uterine balloon data not captured at baseline and first follow-up evaluations.

Table B7.10: Distribution of obstetric complications, basic facilities

	Baseline	Second Follow-up
Sepsis	0	1
Hemorrhage	4	24
Pre-eclampsia	13	24
Eclampsia	1	1



Table B7.11: Distribution of obstetric complications, complete facilities

	Baseline	Second Follow-up
Sepsis	0	1
Hemorrhage	5	10
Pre-eclampsia	14	50
Eclampsia	1	4

Table B7.12: Distribution of neonatal complications, basic facilities

	Baseline	Second Follow-up
Sepsis	4	4
Low birth weight	2	10
Asphyxia	1	2
Prematurity	1	8

Table B7.13: Distribution of neonatal complications, complete facilities

	Baseline	Second Follow-up
Sepsis	0	17
Low birth weight	0	17
Asphyxia	0	10
Prematurity	2	12

Table B7.14: Maternal sepsis management, basic facilities

	S	Second Follow-Up					
	N	%	CI				
Vital signs checked	1	100	(2.5 - 100)				
Pulse / heart rate	1	100	(2.5 - 100)				
Blood pressure	1	100	(2.5 - 100)				
Temperature	1	100	(2.5 - 100)				
Antibiotics administered	1	100	(2.5 - 100)				
Causes treated appropriately	1	100	(2.5 - 100)				
Abortion	-	-	-				
Uterineperforation	-	-	-				
Abscess	-	-	-				
Endometritis	-	-	-				
Fever	-	-	-				
Retained placenta	1	100	(2.5 - 100)				
Obstetric sepsis managed according to SMI standard	1	100	(2.5 - 100)				



Table B7.15: Maternal sepsis management, complete facilities

	S	Second Follow-Up				
	N	%	CI			
Vital signs checked	1	100	(2.5 - 100)			
Pulse / heart rate	1	100	(2.5 - 100)			
Blood pressure	1	100	(2.5 - 100)			
Temperature	1	100	(2.5 - 100)			
Lab tests	1	100	(2.5 - 100)			
Blood biometry	1	100	(2.5 - 100)			
Blood type	1	100	(2.5 - 100)			
Rh factor	1	100	(2.5 - 100)			
Antibiotics administered	1	100	(2.5 - 100)			
Causes treated appropriately	1	0	(0 - 97.5)			
Abortion	-	-	-			
Uterineperforation	-	-	-			
Abscess	-	-	-			
Endometritis	-	-	-			
Fever	-	-	-			
Retained placenta	1	0	(0 - 97.5)			
Obstetric sepsis managed according to SMI standard	1	0	(0 - 97.5)			

Table B7.16: Maternal hemorrhage management, basic facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	4	25	(0.6 - 80.6)	23	60.9	(38.5 - 80.3)	
Pulse / heart rate	4	25	(0.6 - 80.6)	23	69.6	(47.1 - 86.8)	
Blood pressure	4	100	(39.8 - 100)	23	65.2	(42.7 - 83.6)	
Ringer's lactate / Hartmann's solution administered	4	25	(0.6 - 80.6)	23	17.4	(5 - 38.8)	
Causes treated appropriately	1	100	(2.5 - 100)	19	68.4	(43.4 - 87.4)	
Hemorrhage managed according to SMI standard	4	0	(0 - 60.2)	23	17.4	(5 - 38.8)	



Table B7.17: Maternal hemorrhage management, complete facilities

		Ва	seline		Second Follow-Up			
	N	%	CI	N	%	CI		
Vital signs checked	5	100	(47.8 - 100)	9	100.0	(66.4 - 100)		
Pulse / heart rate	5	100	(47.8 - 100)	9	100.0	(66.4 - 100)		
Blood pressure	5	100	(47.8 - 100)	9	100.0	(66.4 - 100)		
Lab tests	5	80	(28.4 - 99.5)	9	66.7	(29.9 - 92.5)		
Hematocrit	5	100	(47.8 - 100)	9	100.0	(66.4 - 100)		
Hemoglobin	5	100	(47.8 - 100)	9	100.0	(66.4 - 100)		
Plateletcount	5	100	(47.8 - 100)	9	100.0	(66.4 - 100)		
Prothrombin	5	100	(47.8 - 100)	9	88.9	(51.8 - 99.7)		
Partial thromboplastin	5	100	(47.8 - 100)	9	100.0	(66.4 - 100)		
Blood type	5	80	(28.4 - 99.5)	9	77.8	(40 - 97.2)		
Rh factor	5	80	(28.4 - 99.5)	9	77.8	(40 - 97.2)		
Causes treated appropriately	5	60	(14.7 - 94.7)	8	75.0	(34.9 - 96.8)		
Hemorrhage managed according to SMI standard	5	40	(5.3 - 85.3)	9	55.6	(21.2 - 86.3)		

Table B7.18: Maternal hemorrhage management, basic facilities

	Baseline			Second Follow-Up			
	N	%	CI	N	%	CI	
Causes treated appropriately	1	100	(2.5 - 100)	19	68.4	(43.4 - 87.4)	
Abortion	1	100	(2.5 - 100)	14	92.9	(66.1 - 99.8)	
Ectopic/broken ectopic pregnancy	-	-	-	-	-	-	
Placenta previa	-	-	-	1	100.0	(2.5 - 100)	
Uterine rupture	-	-	-	-	-	-	
Uterine atony	-	-	-	-	-	-	
Uterineinversion	-	-	-	-	-	-	
Retained placenta	-	-	-	-	-	-	
Retention of placental remains	-	-	-	6	16.7	(0.4 - 64.1)	

Table B7.19: Maternal hemorrhage management, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Causes treated appropriately	5	60.0	(14.7 - 94.7)	8	75.0	(34.9 - 96.8)	
Abortion	-	-	-	-	-	-	
Ectopic/broken ectopic pregnancy	-	-	-	-	-	-	
Placenta previa	3	66.7	(9.4 - 99.2)	6	83.3	(35.9 - 99.6)	
Uterine rupture	1	100.0	(2.5 - 100)	-	-	-	
Uterine atony	1	100.0	(2.5 - 100)	1	0.0	(0 - 97.5)	
Uterineinversion	-	-	-	-	-	-	
Retained placenta	-	-	-	-	-	-	
Retention of placental remains	1	0.0	(0 - 97.5)	2	100.0	(15.8 - 100)	

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Table B7.20: Maternal pre-eclampsia management, basic facilities

		Bas	eline		Second Follow-Up		
	N	%	CI	N	%	CI	
Vital signs checked	13	92.3	(64 - 99.8)	22	100.0	(84.6 - 100)	
Blood pressure	13	92.3	(64 - 99.8)	22	100.0	(84.6 - 100)	
Lab tests	13	38.5	(13.9 - 68.4)	22	9.1	(1.1 - 29.2)	
Urine protein	13	38.5	(13.9 - 68.4)	22	9.1	(1.1 - 29.2)	
All appropriate medications administered	13	46.2	(19.2 - 74.9)	22	0.0	(0 - 15.4)	
Magnesium sulfate	13	46.2	(19.2 - 74.9)	22	4.5	(0.1 - 22.8)	
Hydralazine / nifedipine (if systolic bpp	6	100.0	(54.1 - 100)	8	62.5	(24.5 - 91.5)	
>=160 or diastolic blood pressure >=110)							
Referred to complete facility	13	23.1	(5 - 53.8)	22	50.0	(28.2 - 71.8)	
Pre-eclampsia managed according to SMI standard	13	0.0	(0 - 24.7)	22	0.0	(0 - 15.4)	

Table B7.21: Maternal pre-eclampsia management, complete facilities

		Bas	eline		Second F	ollow-Up
	N	%	CI	N	%	CI
Vital signs checked	14	50.0	(23 - 77)	43	39.5	(25 - 55.6)
Pulse / heart rate	14	100.0	(76.8 - 100)	43	100.0	(91.8 - 100)
Blood pressure	14	100.0	(76.8 - 100)	43	100.0	(91.8 - 100)
Respiratory rate	14	100.0	(76.8 - 100)	43	100.0	(91.8 - 100)
Patellar reflex	14	50.0	(23 - 77)	43	39.5	(25 - 55.6)
Lab tests	14	71.4	(41.9 - 91.6)	43	39.5	(25 - 55.6)
Urine protein	14	85.7	(57.2 - 98.2)	43	69.8	(53.9 - 82.8)
Platelet count	14	92.9	(66.1 - 99.8)	43	72.1	(56.3 - 84.7)
Aspartate aminotransferase/Glutamic	14	78.6	(49.2 - 95.3)	43	60.5	(44.4 - 75)
Transaminease oxalacetic (GOT)						
Alanine transaminase /	14	78.6	(49.2 - 95.3)	43	60.5	(44.4 - 75)
glutamic-pyruvic transaminase						
Lactate dehydrogenase	14	78.6	(49.2 - 95.3)	43	48.8	(33.3 - 64.5)
All appropriate medications administered	14	64.3	(35.1 - 87.2)	43	39.5	(25 - 55.6)
Magnesium sulfate	14	64.3	(35.1 - 87.2)	43	41.9	(27 - 57.9)
Hydralazine / nifedipine (if systolic bpp	6	100.0	(54.1 - 100)	20	95.0	(75.1 - 99.9)
>=160 or diastolic blood pressure >=110)						
Dexamethasone/betamethasone (if	-	-	_	4	25.0	(0.6 - 80.6)
gestational age >=24 or <=35 weeks)						
Pre-eclampsia managed according to SMI standard	14	35.7	(12.8 - 64.9)	43	14.0	(5.3 - 27.9)



Table B7.22: Maternal eclampsia management, basic facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Vital signs checked	1	100	(2.5 - 100)	1	100	(2.5 - 100)	
Blood pressure	1	100	(2.5 - 100)	1	100	(2.5 - 100)	
Lab tests	1	0	(0 - 97.5)	1	0	(0 - 97.5)	
Urine protein	1	0	(0 - 97.5)	1	0	(0 - 97.5)	
All appropriate medications administered	1	0	(0 - 97.5)	1	0	(0 - 97.5)	
Magnesium sulfate	1	0	(0 - 97.5)	1	0	(0 - 97.5)	
Hydralazine / nifedipine (if systolic bp	1	100	(2.5 - 100)	-	-	-	
>=160 or diastolic bp >=110)							
Referred to complete facility	1	100	(2.5 - 100)	1	100	(2.5 - 100)	
Eclampsia managed according to SMI standard	1	0	(0 - 97.5)	1	0	(0 - 97.5)	

Table B7.23: Maternal eclampsia management, complete facilities

		Bas	eline		Second F	ollow-Up
	N	%	CI	N	%	CI
Vital signs checked	1	100	(2.5 - 100)	3	66.7	(9.4 - 99.2)
Pulse / heart rate	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
Blood pressure	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
Respiratory rate	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
Patellar reflex	1	100	(2.5 - 100)	3	66.7	(9.4 - 99.2)
Lab tests	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
Urine protein	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
Platelet count	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
Aspartate aminotransferase /	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
glutamic-oxalacetic transaminase						
Alanine transaminase /	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
glutamic-pyruvic transaminase						
Lactate dehydrogenase	1	100	(2.5 - 100)	3	100.0	(29.2 - 100)
All appropriate medications administered	1	100	(2.5 - 100)	3	66.7	(9.4 - 99.2)
Magnesium sulfate	1	100	(2.5 - 100)	3	66.7	(9.4 - 99.2)
Hydralazine / nifedipine (if systolic bp	1	100	(2.5 - 100)	-	-	-
>=160 or diastolic bp >=110)						
Dexamethasone/betamethasone (if	1	100	(2.5 - 100)	-	-	-
gestational age >=24 or <=35 weeks						
Eclampsia managed according to SMI standard	1	100	(2.5 - 100)	3	66.7	(9.4 - 99.2)



Table B7.24: Maternal complications management, basic facilities

		Baseline			Baseline Second Follow-Up			ollow-Up
	N	N % CI			%	CI		
Sepsis managed according to SMI standard	-	-	-	1	100.0	(2.5 - 100)		
Hemorrhage managed according to SMI standard	4	0	(0 - 60.2)	24	16.7	(4.7 - 37.4)		
Pre-eclampsia managed according to SMI standard	13	0	(0 - 24.7)	24	0.0	(0 - 14.2)		
Eclampsia managed according to SMI standard	1	0	(0 - 97.5)	1	0.0	(0 - 97.5)		
ComplicationsmanagedaccordingtoSMIstandard	18	0	(0 - 18.5)	50	10.0	(3.3 - 21.8)		

Table B7.25: Maternal complications management, complete facilities

		Bas	eline	Second Follow-Up			
	N	N % CI			%	CI	
Sepsis managed according to SMI standard	-	-	-	1	0.0	(0 - 97.5)	
Hemorrhage managed according to SMI standard	5	40.0	(5.3 - 85.3)	10	60.0	(26.2 - 87.8)	
Pre-eclampsia managed according to SMI standard	14	35.7	(12.8 - 64.9)	50	14.0	(5.8 - 26.7)	
Eclampsia managed according to SMI standard	1	100.0	(2.5 - 100)	4	50.0	(6.8 - 93.2)	
$Complications\ managed\ according\ to\ SMI\ standard$	20	40.0	(19.1 - 63.9)	63	22.2	(12.7 - 34.5)	

Table B7.26: Neonatal sepsis management, basic facilities

		Baseline			Second Follow-Up			
	N	%	CI	N	%	CI		
Vital signs checked	4	50	(6.8 - 93.2)	4	75	(19.4 - 99.4)		
Pulse / heart rate	4	75	(19.4 - 99.4)	4	75	(19.4 - 99.4)		
Respiratory rate	4	75	(19.4 - 99.4)	4	75	(19.4 - 99.4)		
Temperature	4	75	(19.4 - 99.4)	4	75	(19.4 - 99.4)		
Lab tests	4	0	(0 - 60.2)	4	25	(0.6 - 80.6)		
Blood biometry	4	0	(0 - 60.2)	4	25	(0.6 - 80.6)		
Antibiotics administered	4	100	(39.8 - 100)	4	50	(6.8 - 93.2)		
Evaluated by doctor (basic) or specialist (complete)	4	100	(39.8 - 100)	4	75	(19.4 - 99.4)		
Referred to complete facility (if septic shock)	-	-	-	-	-	-		
Sepsis managed according to SMI standard	4	0	(0 - 60.2)	4	0	(0 - 60.2)		



Table B7.27: Neonatal sepsis management, complete facilities

	Second Follow-Up				
	N	%	CI		
Vital signs checked	15	100.0	(78.2 - 100)		
Pulse / heart rate	15	100.0	(78.2 - 100)		
Respiratory rate	15	100.0	(78.2 - 100)		
Temperature	15	100.0	(78.2 - 100)		
Abdominal exam	15	100.0	(78.2 - 100)		
Lab tests	15	0.0	(0 - 21.8)		
Blood biometry	15	93.3	(68.1 - 99.8)		
Oxygensaturation	15	86.7	(59.5 - 98.3)		
C-reactive protein	15	40.0	(16.3 - 67.7)		
Blood culture	15	0.0	(0 - 21.8)		
Neutrophil band ratio / absolute ratio	15	80.0	(51.9 - 95.7)		
Antibiotics administered	15	100.0	(78.2 - 100)		
Evaluated by doctor (basic) or specialist	15	93.3	(68.1 - 99.8)		
(complete)					
Sepsis managed according to SMI	15	0.0	(0 - 21.8)		
standard					

Table B7.28: Neonatal asphyxia management, basic facilities

		Baseline			Second	d Follow-Up	
	N	%	CI	N	%	CI	
Vital signs checked	1	100	(2.5 - 100)	2	100	(15.8 - 100)	
Pulse / heart rate	1	100	(2.5 - 100)	2	100	(15.8 - 100)	
Respiratory rate	1	100	(2.5 - 100)	2	100	(15.8 - 100)	
APGAR score at one minute	1	100	(2.5 - 100)	2	100	(15.8 - 100)	
APGAR score at five minutes	1	100	(2.5 - 100)	2	100	(15.8 - 100)	
Oxygen saturation (if APGAR <= 3 at five minutes)	-	-	-	-	-	-	
AMBU / endotracheal intubation / cardiac massage (if APGAR <= 3 at five minutes)	-	-	-	-	-	-	
Heat application	1	100	(2.5 - 100)	2	50	(1.3 - 98.7)	
Evaluted by doctor (if basic) or specialist (if complete)	1	100	(2.5 - 100)	2	100	(15.8 - 100)	
Referred to complete facility (if APGAR <= 3 at five minutes)	-	-	-	-	-	-	
Asphyxia managed according to SMI standard	1	100	(2.5 - 100)	2	50	(1.3 - 98.7)	



Table B7.29: Neonatal asphyxia management, complete facilities

		Second F	ollow-Up
	N	%	CI
Vital signs checked	9	100.0	(66.4 - 100)
Pulse / heart rate	9	100.0	(66.4 - 100)
Respiratory rate	9	100.0	(66.4 - 100)
APGAR score at one minute	9	100.0	(66.4 - 100)
APGAR score at five minutes	9	100.0	(66.4 - 100)
Laboratory tests (if APGAR <=3 at five	-	-	-
minutes			
Oxygen saturation (if APGAR <= 3 at five	-	-	-
minutes)			
AMBU / endotracheal intubation / cardiac	-	-	-
massage (if APGAR <= 3 at five minutes)			
Parsol medications (if APGAR <=3 at five	-	-	-
minutes			
Heat application	9	100.0	(66.4 - 100)
Evaluted by doctor (if basic) or specialist	9	88.9	(51.8 - 99.7)
(if complete)			•
Asphyxia managed according to SMI	9	88.9	(51.8 - 99.7)
standard			,

Table B7.30: Neonatal low birth weight management, basic facilities

		Ва	seline	S	econd	Follow-Up
	N	%	CI	N	%	CI
Gestational age calculated using	2	100	(15.8 - 100)	10	40	(12.2 - 73.8)
Capurro/Ballard						
Weight classification (if in-facility delivery)	1	100	(2.5 - 100)	8	75	(34.9 - 96.8)
Vital signs checked	2	0	(0 - 84.2)	10	10	(0.3 - 44.5)
Weight	2	50	(1.3 - 98.7)	10	90	(55.5 - 99.7)
Height	2	50	(1.3 - 98.7)	10	70	(34.8 - 93.3)
Pulse / heart rate	2	50	(1.3 - 98.7)	10	90	(55.5 - 99.7)
Respiratory rate	2	50	(1.3 - 98.7)	10	90	(55.5 - 99.7)
Head circumference	2	50	(1.3 - 98.7)	10	70	(34.8 - 93.3)
Silverman-Anderson score	2	0	(0 - 84.2)	10	10	(0.3 - 44.5)
APGAR score (at 1 or 5 minutes)	2	100	(15.8 - 100)	10	60	(26.2 - 87.8)
Breastfed / given glucose	2	100	(15.8 - 100)	10	70	(34.8 - 93.3)
Evaluated by doctor (basic) or specialist (complete)	2	100	(15.8 - 100)	10	90	(55.5 - 99.7)
Referred to complete facility (if weight < 1500 grams or had additional	1	0	(0 - 97.5)	1	0	(0 - 97.5)
complications) Low birth weight managed according to SMI standard	2	0	(0 - 84.2)	10	10	(0.3 - 44.5)

<sup>&</sup>lt;sup>a</sup> Additional complications include: respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations



Table B7.31: Neonatal low birth weight management, complete facilities

		Second F	ollow-Up
	N	%	CI
Gestational age calculated using	15	93.3	(68.1 - 99.8)
Capurro/Ballard			
Weight classification (if in-facility delivery)	13	100.0	(75.3 - 100)
Vital signs checked	15	86.7	(59.5 - 98.3)
Weight	15	100.0	(78.2 - 100)
Height	15	100.0	(78.2 - 100)
Pulse / heart rate	15	86.7	(59.5 - 98.3)
Respiratory rate	15	86.7	(59.5 - 98.3)
Head circumference	15	86.7	(59.5 - 98.3)
Silverman-Anderson score	15	93.3	(68.1 - 99.8)
APGAR score (at 1 or 5 minutes)	15	100.0	(78.2 - 100)
Breastfed / given glucose	15	86.7	(59.5 - 98.3)
Evaluated by doctor (basic) or specialist (complete)	15	53.3	(26.6 - 78.7)
Appropriate management of the	3	66.7	(9.4 - 99.2)
following complications:			
If pneumonia: antibiotics	-	-	_
If diarrhea: IV solution + antibiotics	-	-	-
If seizures: anticonvulsants	-	-	-
If hypoglycemia: glucose IV	3	66.7	(9.4 - 99.2)
Low birth weight managed according to	15	40.0	(16.3 - 67.7)
SMIstandard			



Table B7.32: Neonatal prematurity management, basic facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
Gestational age calculated using	1	0	(0 - 97.5)	8	62.5	(24.5 - 91.5)
Capurro/Ballard						
Classification based on gestational age (if	-	-	-	4	50.0	(6.8 - 93.2)
in-facility delivery)						
Vital signs checked	1	0	(0 - 97.5)	8	12.5	(0.3 - 52.7)
Weight	1	100	(2.5 - 100)	8	62.5	(24.5 - 91.5)
Pulse / heart rate	1	100	(2.5 - 100)	8	62.5	(24.5 - 91.5)
Respiratory rate	1	100	(2.5 - 100)	8	62.5	(24.5 - 91.5)
Head circumference	1	0	(0 - 97.5)	8	25.0	(3.2 - 65.1)
Silverman-Anderson score	1	0	(0 - 97.5)	8	25.0	(3.2 - 65.1)
APGAR score (at 1 or 5 minutes)	1	0	(0 - 97.5)	8	50.0	(15.7 - 84.3)
Laboratory tests	1	100	(2.5 - 100)	8	25.0	(3.2 - 65.1)
Glycemia test	1	100	(2.5 - 100)	8	25.0	(3.2 - 65.1)
Heat application	1	100	(2.5 - 100)	8	37.5	(8.5 - 75.5)
Breastfed / given glucose	1	100	(2.5 - 100)	8	62.5	(24.5 - 91.5)
Evaluated by doctor (basic) or specialist	1	100	(2.5 - 100)	8	87.5	(47.3 - 99.7)
(complete)						
Referred to complete facility (if <=34	1	0	(0 - 97.5)	4	75.0	(19.4 - 99.4)
weeks gestsion or additional						
complications)						
Prematurity managed according to SMI	1	0	(0 - 97.5)	8	0.0	(0 - 36.9)
standard						

<sup>&</sup>lt;sup>a</sup> Additional complications include: respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations



Table B7.33: Neonatal prematurity management, complete facilities

		Ва	seline		Second F	ollow-Up
	N	%	CI	N	%	CI
Gestational age calculated using Capurro/Ballard	2	100	(15.8 - 100)	10	100.0	(69.2 - 100)
Classification based on gestational age (if in-facility delivery)	2	100	(15.8 - 100)	9	77.8	(40 - 97.2)
Vital signs checked	2	100	(15.8 - 100)	10	70.0	(34.8 - 93.3)
Weight	2	100	(15.8 - 100)	10	100.0	(69.2 - 100)
Pulse / heart rate	2	100	(15.8 - 100)	10	90.0	(55.5 - 99.7)
Respiratory rate	2	100	(15.8 - 100)	10	90.0	(55.5 - 99.7)
Head circumference	2	100	(15.8 - 100)	10	90.0	(55.5 - 99.7)
Silverman-Anderson score	2	100	(15.8 - 100)	10	80.0	(44.4 - 97.5)
APGAR score (at 1 or 5 minutes)	2	100	(15.8 - 100)	10	80.0	(44.4 - 97.5)
Laboratorytests	2	100	(15.8 - 100)	10	70.0	(34.8 - 93.3)
Glycemiatest	2	100	(15.8 - 100)	10	80.0	(44.4 - 97.5)
Oxygen saturation level	2	100	(15.8 - 100)	10	70.0	(34.8 - 93.3)
Heat application	2	0	(0 - 84.2)	10	50.0	(18.7 - 81.3)
Breastfed / given glucose	2	100	(15.8 - 100)	10	90.0	(55.5 - 99.7)
Evaluated by doctor (basic) or specialist (complete)	2	100	(15.8 - 100)	10	60.0	(26.2 - 87.8)
Appropriate management of any additional complications	-	-	-	1	100.0	(2.5 - 100)
If pneumonia: antibiotics	-	_	-	-	-	-
If diarrhea: IV solution + antibiotics	-	-	-	-	-	-
If seizures: anticonvulsants	-	-	-	-	-	-
If hypoglycemia: glucose IV	-	-	-	1	100.0	(2.5 - 100)
Prematurity managed according to SMI standard	2	0	(0 - 84.2)	10	10.0	(0.3 - 44.5)

Table B7.34: Neonatal complications management, basic facilities

	Baseline			SecondFollow-Up		
	N	%	CI	N	%	CI
Sepsis managed according to SMI standard	4	0.0	(0 - 60.2)	4	0.0	(0 - 60.2)
Asphyxia managed according to SMI standard	1	100.0	(2.5 - 100)	2	50.0	(1.3 - 98.7)
Low birth weight managed according to SMI standard	2	0.0	(0 - 84.2)	10	10.0	(0.3 - 44.5)
Prematurity managed according to SMI standard	1	0.0	(0 - 97.5)	8	0.0	(0 - 36.9)
Complications managed according to SMI standard	6	16.7	(0.4 - 64.1)	21	9.5	(1.2 - 30.4)



Table B7.35: Neonatal complications management, complete facilities

	Baseline			Second Follow-Up		
	N	%	CI	Ν	%	CI
Sepsis managed according to SMI standard	-	-	-	17	0.0	(0 - 19.5)
Asphyxia managed according to SMI standard	-	-	-	10	90.0	(55.5 - 99.7)
Low birth weight managed according to SMI standard	-	-	-	17	41.2	(18.4 - 67.1)
Prematurity managed according to SMI standard	2	0	(0 - 84.2)	12	8.3	(0.2 - 38.5)
Complications managed according to SMI standard	2	0	(0 - 84.2)	40	25.0	(12.7 - 41.2)



Table B8.1: Infection control and disposal, ambulatory facilities

		Bas	eline		Second	Follow-Up
	N	%	CI	N	%	CI
Incinerator at facility	18	0.0	(0 - 18.5)	22	0.0	(0 - 15.4)
Contract with other facility for disposal (if no incinerator)	18	22.2	(6.4 - 47.6)	22	27.3	(10.7 - 50.2)
Manual for decontamination	16	31.2	(11 - 58.7)	21	23.8	(8.2 - 47.2)

<sup>&</sup>lt;sup>a</sup> One facility at the baseline responded 'don't know/decline to respond' when asked about an incinerator at the facility and contract for disosal. Three facilities at the baseline responded 'don't know/decline to respond' when asked about a manual for decontamination. These are excluded from the table.

Table B8.2: Infection control and disposal, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Incinerator at facility	7	0.0	(0 - 41)	7	0.0	(0 - 41)	
Contract with other facility for disposal (if no incinerator)	7	71.4	(29 - 96.3)	7	71.4	(29 - 96.3)	
Manual for decontamination	7	71.4	(29 - 96.3)	7	14.3	(0.4 - 57.9)	

Table B8.3: Infection control and disposal, complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Incinerator at facility	4	0	(0 - 60.2)	1	0	(0 - 97.5)	
Contract with other facility for disposal (if no incinerator)	4	75	(19.4 - 99.4)	1	100	(2.5 - 100)	
Manual for decontamination	4	50	(6.8 - 93.2)	1	100	(2.5 - 100)	

<sup>&</sup>lt;sup>b</sup> One facility at the second follow-up responded 'don't know/decline to respond' when asked about a manual and is excluded from the table.



## **Appendix C: Comparison Matrices**

**Table C.1: Comparison performance matrix** 

			Baseline		S	econd	Follow-Up
Code	Description	N	%	CI	N	%	CI
3035	5 ANC visits with quality	21	0.0	(0 - 16.1)	128	7.0	(3.3 - 12.9)
4050	Immediate postpartum care for the woman	143	0.0	(0 - 2.5)	102	10.8	(5.5 - 18.5)
4070	Neonatal complications management	8	12.5	(0.3 - 52.7)	58	20.7	(11.2 - 33.4)
4080	Maternal complications management	38	21.1	(9.6 - 37.3)	101	16.8	(10.1 - 25.6)
4090	Active management of the 3rd stage of labor	141	62.4	(53.9 - 70.4)	103	93.2	(86.5 - 97.2)

<sup>&</sup>lt;sup>a</sup> 3035: RPR not captured as alternative to VDLR at baseline. At the baseline, fetal checks and fundal height were captured only if gestational age at the first visit was eligible

<sup>&</sup>lt;sup>b</sup> 4070 & 4080: Baseline value reported in the matrix contains re-collected medical records from outside the baseline data collection time frame (January 2011 - December 2013).



**Table C.2: Comparison monitoring matrix** 

			Base	line	S	econd F	ollow-Up
Code	Description	N	%	CI	N	%	CI
3030	4+ ANC visits with quality	72	9.7	(4 - 19)	168	2.4	(0.7 - 6)
3040	Timely first ANC visit	67	35.8	(24.5 - 48.5)	164	27.4	(20.8 - 34.9)
4103	Neonatal postpartum care	87	16.1	(9.1 - 25.5)	102	42.2	(32.4 - 52.3)
4120	Cesarean section prevalence	8572	41.8	-	8699	40.9	-
4130	Diarrhea management	65	9.2	(3.5 - 19)	-	-	-
7000	Cold chain composite	11	90.9	(58.7 - 99.8)	13	92.3	(64 - 99.8)
7010	Childcare services composite	26	7.7	(0.9 - 25.1)	30	3.3	(0.1 - 17.2)
7020	Pre/postnatal care composite	28	3.6	(0.1 - 18.3)	30	13.3	(3.8 - 30.7)
7030	Emergency cary composite	3	0.0	(0 - 70.8)	8	0.0	(0 - 36.9)
7040	Delivery care composite	10	0.0	(0 - 30.8)	8	0.0	(0 - 36.9)
7050	Family planning composite	22	59.1	(36.4 - 79.3)	28	53.6	(33.9 - 72.5)
7190	24/7 availability of staff	4	25.0	(0.6 - 80.6)	1	0.0	(0 - 97.5)
7210	Access to safe blood	4	100.0	(39.8 - 100)	1	100.0	(2.5 - 100)
8870	Socio-cultural conditions	4	50.0	(6.8 - 93.2)	1	100.0	(2.5 - 100)

<sup>&</sup>lt;sup>a</sup> 3030: RPR not captured as alternative to VDLR at baseline. At the baseline, fetal checks were captured only if gestational age at the first visit was eligible

<sup>&</sup>lt;sup>b</sup> 3040: At baseline, gestational age at the first visit was calculated. At second follow-up, gestational age was reported in the record

<sup>&</sup>lt;sup>c</sup> 4103: Heart rate not captured as an alternative at baseline

<sup>&</sup>lt;sup>d</sup> 4120: Data collected where available from 5 facilities for the baseline time period and 7 facilities for second follow-up time period.

<sup>&</sup>lt;sup>e</sup> 7010, 7020, 7030, 7040: Three month stock data not available for all drugs at baseline.



## **Appendix D: Combined intervention and control area tables**

Table D2.1: Health facility classification

EONC	Baseline	Second Follow-Up
Ambulatory	60	68
Basic	18	19
Complete	12	3
Total	90	90



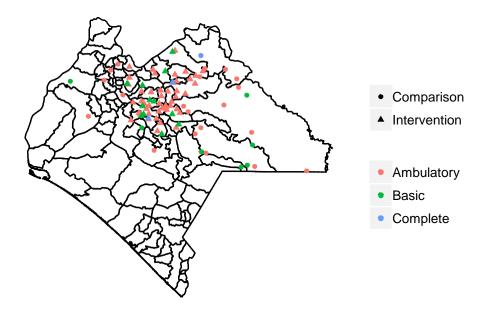
### Table D2.2: Number of facilities by municipality and jurisdiction {-}

Municipality	Baseline Facilities	Second Follow-up Facilities
Comitan		
Las Margaritas	5	6
Maravilla Tenejapa	1	1
Ocosingo		
Altamirano	1	1
Chilón	7	5
Ocosingo	8	5
Sitalá	-	1
Palenque		
Benemérito de las Américas	1	1
Ocosingo	-	2
Palenque	7	6
Sabanilla	-	1
Salto de Agua	4	4
Tila	3	2
Tumbalá	-	2
Yajalón	2	3
Pichucalco		
Amatán	2	1
Bochil	-	1
Chapultenango	-	1
El Bosque	-	1
Pueblo Nuevo Solistahuacán	1	3
Simojovel	1	1
Solosuchiapa	-	1
Aldama	2	1
San Cristobal De Las Casas		
Chalchihuitán	1	2
Chamula	5	5
Chanal	2	2
Chenalhó	3	3
Huixtán	3	1
Larráinzar	2	2
Oxchuc	5	4
Pantelhó	2	2
San Cristóbal de las Casas	4	3
San Juan Cancuc	6	4
Santiago El Pinar	1	1
Tenejapa	1	2
Teopisca	2	2
Zinacantán	1	2



Francisco León	1	-
Tuxtla Guiterrez		
Ocotepec	-	1
Ocozocoautla de Espinosa	1	1
San Lucas	1	1
Tecpatán	3	1
Venustiano Carranza	1	1
Total	90	90

Figure D2.1: Geographical representation of facilities





**Table D2.3: Medical record extraction** 

	В	aseline		Secon	d Follow	r-Up
Record Type	Ambulatory	Basic	Complete	Ambulatory	Basic	Complete
Antenatal care	456	411	18	651	147	0
Diarrhea	201	0	0	338	16	0
Delivery	0	164	216	0	296	90
Postpartum care	0	141	209	0	283	85
Maternal complications	0	286	374	0	247	145
Total	657	1153	1146	989	1147	438

Table D2.4: Referrals, ambulatory facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Receives referred patients from other facilities	59	11.9	(4.9 - 22.9)	68	14.7	(7.3 - 25.4)
Sends patient referrals to other facilities	59	83.1	(71 - 91.6)	68	100.0	(94.7 - 100)

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/refuse to respond' about referrals

Table D2.5: Referrals, basic facilities

		Bas	seline		SecondF	ollow-Up
	N	%	CI	N	%	CI
Receives referred patients from other facilities	18	61.1	(35.7 - 82.7)	19	84.2	(60.4 - 96.6)
Receives referred routine deliveries	-	-	-	16	100.0	(79.4 - 100)
Receives referred complicated	-	-	-	16	62.5	(35.4 - 84.8)
deliveries						
Sends patient referrals to other facilities	18	83.3	(58.6 - 96.4)	19	100.0	(82.4 - 100)
Sends referred routine deliveries	-	-	-	19	15.8	(3.4 - 39.6)
Sends referred complicated deliveries	-	-	=	19	100.0	(82.4 - 100)



Table D2.6: Referrals, complete facilities

	Baseline				Follow-Up	
	N	%	CI	N	%	CI
Receives referred patients from other facilities	12	75	(42.8 - 94.5)	3	100	(29.2 - 100)
Receives referred routine deliveries	-	-	-	3	100	(29.2 - 100)
Receives referred complicated deliveries	-	-	-	3	100	(29.2 - 100)
Sends patient referrals to other facilities	11	100	(71.5 - 100)	3	100	(29.2 - 100)
Sends referred routine deliveries Sends referred complicated deliveries	-	-	-	3	0 0	(0 - 70.8) (0 - 70.8)
serius referreu complicateu deliveries	-	-	-	٦	U	(0 - 70.8)

<sup>&</sup>lt;sup>a</sup> One complete facility at the baseline responded 'don't know/refuse to respond' about referring patients to other facilities

Table D2.7: Requested referral documents, second follow-up evaluation

		В	asic	Complete		
	N	%	CI	N	%	CI
Routine Deliveries						
Referral sheet	16	6.2	(0.2 - 30.2)	3	33.3	(0.8 - 90.6)
Patient medical record	16	6.2	(0.2 - 30.2)	3	0.0	(0 - 70.8)
Lab tests	16	12.5	(1.6 - 38.3)	3	0.0	(0 - 70.8)
Proof of insurance	16	43.8	(19.8 - 70.1)	3	100.0	(29.2 - 100)
Other documentation	16	87.5	(61.7 - 98.4)	3	100.0	(29.2 - 100)
Complicated Deliveries						
Referral sheet	10	0.0	(0 - 30.8)	3	33.3	(0.8 - 90.6)
Patient medical record	10	10.0	(0.3 - 44.5)	3	0.0	(0 - 70.8)
Lab tests	10	10.0	(0.3 - 44.5)	3	0.0	(0 - 70.8)
Proof of insurance	10	50.0	(18.7 - 81.3)	3	100.0	(29.2 - 100)
Other documentation	10	90.0	(55.5 - 99.7)	3	100.0	(29.2 - 100)



Table D2.8: Personnel employed, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
General physician	60	78.3	(65.8 - 87.9)	68	77.9	(66.2 - 87.1)	
Pediatrician	59	0.0	(0 - 6.1)	68	0.0	(0 - 5.3)	
Nutritionist	59	11.9	(4.9 - 22.9)	68	14.7	(7.3 - 25.4)	
Pharmacist	59	6.8	(1.9 - 16.5)	68	10.3	(4.2 - 20.1)	
Nurse	59	71.2	(57.9 - 82.2)	68	79.4	(67.9 - 88.3)	
Auxiliary nurse	59	28.8	(17.8 - 42.1)	68	45.6	(33.5 - 58.1)	
Midwife	59	40.7	(28.1 - 54.3)	68	0.0	(0 - 5.3)	
Social worker	59	11.9	(4.9 - 22.9)	68	20.6	(11.7 - 32.1)	
Lab technician/chemist	59	6.8	(1.9 - 16.5)	68	10.3	(4.2 - 20.1)	
Healthpromoter	59	54.2	(40.8 - 67.3)	67	17.9	(9.6 - 29.2)	
Polivalent/multipurpose	-	-	-	68	8.8	(3.3 - 18.2)	
Employee for equipment maintenance	59	13.6	(6 - 25)	68	1.5	(0 - 7.9)	
Employee for building maintenance	59	13.6	(6 - 25)	68	8.8	(3.3 - 18.2)	

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/refuse to respond' to all personnel except for general physician

Table D2.9: Personnel employed, basic facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
General physician	18	94.4	(72.7 - 99.9)	19	100.0	(82.4 - 100)		
Pediatrician	18	5.6	(0.1 - 27.3)	19	31.6	(12.6 - 56.6)		
Nutritionist	18	66.7	(41 - 86.7)	19	68.4	(43.4 - 87.4)		
Pharmacist	18	50.0	(26 - 74)	19	36.8	(16.3 - 61.6)		
Nurse	18	100.0	(81.5 - 100)	19	100.0	(82.4 - 100)		
Auxiliary nurse	18	72.2	(46.5 - 90.3)	18	94.4	(72.7 - 99.9)		
Midwife	18	16.7	(3.6 - 41.4)	19	5.3	(0.1 - 26)		
Social worker	18	88.9	(65.3 - 98.6)	19	84.2	(60.4 - 96.6)		
Lab technician/chemist	18	72.2	(46.5 - 90.3)	19	84.2	(60.4 - 96.6)		
Healthpromoter	18	44.4	(21.5 - 69.2)	19	47.4	(24.4 - 71.1)		
Polivalent/multipurpose	-	-	-	19	0.0	(0 - 17.6)		
Internist	18	0.0	(0 - 18.5)	19	5.3	(0.1 - 26)		
Gynecologist	18	5.6	(0.1 - 27.3)	19	26.3	(9.1 - 51.2)		
Surgeon	18	11.1	(1.4 - 34.7)	19	31.6	(12.6 - 56.6)		
Anesthesiologist	18	16.7	(3.6 - 41.4)	19	47.4	(24.4 - 71.1)		
Emergency medical technician	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)		
Radiology technician	18	27.8	(9.7 - 53.5)	19	47.4	(24.4 - 71.1)		
Ambulance driver	18	50.0	(26 - 74)	19	52.6	(28.9 - 75.6)		
Employee for equipment maintenance	18	27.8	(9.7 - 53.5)	19	31.6	(12.6 - 56.6)		
Employee for building maintenance	18	22.2	(6.4 - 47.6)	19	36.8	(16.3 - 61.6)		

<sup>&</sup>lt;sup>a</sup> One basic facility at the second follow-up responded 'don't know/refuse to respond' to auxiliary nurse

<sup>&</sup>lt;sup>b</sup> One ambulatory facility at the second follow-up responded 'don't know/refuse to respond' to health promoter



Table D2.10: Personnel employed, complete facilities

		Bas	seline		Second F	ollow-Up
	N	%	CI	N	%	CI
General physician	12	91.7	(61.5 - 99.8)	3	100.0	(29.2 - 100)
Pediatrician	12	75.0	(42.8 - 94.5)	3	100.0	(29.2 - 100)
Nutritionist	11	72.7	(39 - 94)	3	100.0	(29.2 - 100)
Pharmacist	12	25.0	(5.5 - 57.2)	3	66.7	(9.4 - 99.2)
Nurse	12	91.7	(61.5 - 99.8)	3	100.0	(29.2 - 100)
Auxiliary nurse	12	66.7	(34.9 - 90.1)	3	100.0	(29.2 - 100)
Midwife	12	8.3	(0.2 - 38.5)	3	0.0	(0 - 70.8)
Social worker	12	75.0	(42.8 - 94.5)	3	100.0	(29.2 - 100)
Lab technician/chemist	11	72.7	(39 - 94)	3	66.7	(9.4 - 99.2)
Healthpromoter	11	18.2	(2.3 - 51.8)	3	0.0	(0 - 70.8)
Polivalent/multipurpose	-	-	-	3	33.3	(0.8 - 90.6)
Internist	11	18.2	(2.3 - 51.8)	3	33.3	(0.8 - 90.6)
Gynecologist	11	72.7	(39 - 94)	3	100.0	(29.2 - 100)
Surgeon	11	63.6	(30.8 - 89.1)	3	66.7	(9.4 - 99.2)
Anesthesiologist	11	72.7	(39 - 94)	3	100.0	(29.2 - 100)
Emergency medical technician	10	10.0	(0.3 - 44.5)	3	0.0	(0 - 70.8)
Radiology technician	10	60.0	(26.2 - 87.8)	3	100.0	(29.2 - 100)
Ambulance driver	10	60.0	(26.2 - 87.8)	3	100.0	(29.2 - 100)
Employee for equipment maintenance	12	58.3	(27.7 - 84.8)	3	100.0	(29.2 - 100)
Employee for building maintenance	12	58.3	(27.7 - 84.8)	3	100.0	(29.2 - 100)

<sup>&</sup>lt;sup>a</sup> Incomplete personnel data for internist, gynecologist, surgeon, anesthesiologist, emergency medical technician, radiology technician, and ambulance driver at the baseline. One facility at the baseline responded 'don't know/decline to respond when asked about nutritonists, health promoters, and lab technicians/chemists and are excluded from those personnel.

Table D2.11: 24/7 staff availability, complete facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
At least one gynecologist available 24/7 At least one internist availabe 24/7	11 11	27.3 18.2	(6 - 61) (2.3 - 51.8)	3	100 0	(29.2 - 100) (0 - 70.8)
At least one anesthesiologist available 24/7	11	45.5	(16.7 - 76.6)	3	100	(29.2 - 100)
All types of personnel available 24/7	11	9.1	(0.2 - 41.3)	3	0	(0 - 70.8)

<sup>&</sup>lt;sup>a</sup> Data missing from one complete facility at the baseline and is excluded from the indicator



Table D2.12: Access to electricity and water, ambulatory facilities

		Bas	seline		Second	Follow-Up
	N	%	CI	N	%	CI
Functional electricity supply	59	91.5	(81.3 - 97.2)	68	95.6	(87.6 - 99.1)
Public electricity network	54	92.6	(82.1 - 97.9)	65	96.9	(89.3 - 99.6)
Private electricity network	54	1.9	(0 - 9.9)	65	0.0	(0 - 5.5)
Emergency electric plant	54	5.6	(1.2 - 15.4)	65	1.5	(0 - 8.3)
Solar generator	54	1.9	(0 - 9.9)	65	1.5	(0 - 8.3)
Othersource	54	0.0	(0 - 6.6)	65	1.5	(0 - 8.3)
Water supply						
Public water network	57	63.2	(49.3 - 75.6)	68	85.3	(74.6 - 92.7)
Public well	57	5.3	(1.1 - 14.6)	68	5.9	(1.6 - 14.4)
Protected well at facility	57	3.5	(0.4 - 12.1)	68	5.9	(1.6 - 14.4)
Unprotected well	57	3.5	(0.4 - 12.1)	68	0.0	(0 - 5.3)
Manual pump	57	1.8	(0 - 9.4)	68	0.0	(0 - 5.3)
Bottled water	57	0.0	(0 - 6.3)	68	0.0	(0 - 5.3)
Tank or pipe truck	57	10.5	(4 - 21.5)	68	14.7	(7.3 - 25.4)
Rain water	57	8.8	(2.9 - 19.3)	68	2.9	(0.4 - 10.2)
Othersource	57	26.3	(15.5 - 39.7)	68	11.8	(5.2 - 21.9)

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline responded 'don't know/decline to respond' when asked if the facility has a functional electricity. Three ambulatory facilities at the baseline responded 'don't know/decline to respond' when asked about the sources of water.

Table D2.13: Access to electricity and water, basic facilities

Baseline				Second Follow-Up		
N	%	CI	N	%	CI	
18	100.0	(81.5 - 100)	19	100.0	(82.4 - 100)	
18	100.0	(81.5 - 100)	19	100.0	(82.4 - 100)	
18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
18	5.6	(0.1 - 27.3)	19	5.3	(0.1 - 26)	
18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
18	0.0	(0 - 18.5)	19	10.5	(1.3 - 33.1)	
18	77.8	(52.4 - 93.6)	19	78.9	(54.4 - 93.9)	
18	0.0	(0 - 18.5)	19	5.3	(0.1 - 26)	
18	16.7	(3.6 - 41.4)	19	10.5	(1.3 - 33.1)	
18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
18	27.8	(9.7 - 53.5)	19	42.1	(20.3 - 66.5)	
18	5.6	(0.1 - 27.3)	19	10.5	(1.3 - 33.1)	
18	27.8	(9.7 - 53.5)	19	5.3	(0.1 - 26)	
	18 18 18 18 18 18 18 18 18 18 18 18	N %  18 100.0 18 100.0 18 0.0 18 5.6 18 0.0 18 0.0 18 16.7 18 0.0 18 16.7 18 0.0 18 27.8 18 27.8 18 5.6	N % CI  18 100.0 (81.5 - 100) 18 100.0 (81.5 - 100) 18 0.0 (0 - 18.5) 18 5.6 (0.1 - 27.3) 18 0.0 (0 - 18.5) 18 0.0 (0 - 18.5) 18 77.8 (52.4 - 93.6) 18 0.0 (0 - 18.5) 18 16.7 (3.6 - 41.4) 18 0.0 (0 - 18.5) 18 0.0 (0 - 18.5) 18 0.0 (0 - 18.5) 18 0.0 (0 - 18.5) 18 0.0 (0 - 18.5) 18 0.0 (0 - 18.5) 18 5.6 (0.1 - 27.3)	N         %         CI         N           18         100.0         (81.5 - 100)         19           18         100.0         (81.5 - 100)         19           18         0.0         (0 - 18.5)         19           18         5.6         (0.1 - 27.3)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         16.7         (3.6 - 41.4)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19           18         0.0         (0 - 18.5)         19	N         %         CI         N         %           18         100.0         (81.5 - 100)         19         100.0           18         100.0         (81.5 - 100)         19         100.0           18         0.0         (0 - 18.5)         19         0.0           18         5.6         (0.1 - 27.3)         19         5.3           18         0.0         (0 - 18.5)         19         0.0           18         0.0         (0 - 18.5)         19         10.5           18         0.0         (0 - 18.5)         19         5.3           18         16.7         (3.6 - 41.4)         19         10.5           18         0.0         (0 - 18.5)         19         0.0           18         0.0         (0 - 18.5)         19         0.0           18         0.0         (0 - 18.5)         19         0.0           18         0.0         (0 - 18.5)         19         0.0           18         0.0         (0 - 18.5)         19         0.0           18         0.0         (0 - 18.5)         19         0.0           18         0.0         (0 - 18.5)         19	

<sup>&</sup>lt;sup>b</sup> One ambulatory facility at the first follow-up responded 'don't know/decline to respond' when asked the source of water.



Table D2.14: Access to electricity and water, complete facilities

		Bas		Second Follow-Up		
	N	%	CI	N	%	CI
Functional electricity supply	12	100.0	(73.5 - 100)	3	100.0	(29.2 - 100)
Public electricity network	11	100.0	(71.5 - 100)	3	100.0	(29.2 - 100)
Private electricity network	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Emergency electric plant	11	18.2	(2.3 - 51.8)	3	0.0	(0 - 70.8)
Solar generator	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Othersource	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Water supply						
Public water network	11	63.6	(30.8 - 89.1)	3	66.7	(9.4 - 99.2)
Public well	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Protected well at facility	11	9.1	(0.2 - 41.3)	3	33.3	(0.8 - 90.6)
Unprotected well	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Manual pump	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Bottled water	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Tank or pipe truck	11	36.4	(10.9 - 69.2)	3	33.3	(0.8 - 90.6)
Rain water	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)
Othersource	11	27.3	(6 - 61)	3	0.0	(0 - 70.8)

<sup>&</sup>lt;sup>a</sup> One complete facility at the baseline responded 'don't know/decline to respond' when asked the source of water.

Table D2.15: Internet access, ambulatory facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Functional internet connection	59	6.8	(1.9 - 16.5)	68	47.1	(34.8 - 59.6)

<sup>&</sup>lt;sup>a</sup> One facility reported 'don't know/decline to respond' at the baseline when asked about internet

Table D2.16: Internet access, basic facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Functional internet connection	18	38.9	(17.3 - 64.3)	19	31.6	(12.6 - 56.6)

Table D2.17: Internet access, complete facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Functional internet connection	12	66.7	(34.9 - 90.1)	3	66.7	(9.4 - 99.2)



Table D2.18: Access to safe blood, complete facilities

		Baseline			SecondFollow-Up		
	N	%	CI	N	%	CI	
Facility has access to safe blood	12	100	(73.5 - 100)	3	100	(29.2 - 100)	



Table D3.1: Child health care services provision, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Provides childcare services	59	96.6	(88.3 - 99.6)	68	100.0	(94.7 - 100)	
Vaccinates children under five	59	93.2	(83.5 - 98.1)	68	100.0	(94.7 - 100)	
Child health care area							
Visual and auditory privacy	53	73.6	(59.7 - 84.7)	68	88.2	(78.1 - 94.8)	
Non private area	53	13.2	(5.5 - 25.3)	68	8.8	(3.3 - 18.2)	
Visual privacy only	53	1.9	(0 - 10.1)	68	2.9	(0.4 - 10.2)	
Other	53	9.4	(3.1 - 20.7)	68	0.0	(0 - 5.3)	
Do not provide service	53	1.9	(0 - 10.1)	68	0.0	(0 - 5.3)	

<sup>&</sup>lt;sup>a</sup> One ambulatory facility at the baseline reported 'don't know/decline to respond' when asked if they provide childcare services or vaccinate children under five

Table D3.2: Child health care services provision, basic facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Provides childcare services	18	94.4	(72.7 - 99.9)	19	100.0	(82.4 - 100)		
Vaccinates children under five	18	100.0	(81.5 - 100)	19	89.5	(66.9 - 98.7)		
Child health care area								
Visual and auditory privacy	18	100.0	(81.5 - 100)	19	100.0	(82.4 - 100)		
Non private area	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)		
Visual privacy only	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)		
Other	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)		
Do not provide service	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)		

Table D3.3: Child health care services provision, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Provides childcare services	11	72.7	(39 - 94)	3	66.7	(9.4 - 99.2)	
Vaccinates children under five	11	63.6	(30.8 - 89.1)	3	100.0	(29.2 - 100)	
Child health care area							
Visual and auditory privacy	11	100.0	(71.5 - 100)	3	100.0	(29.2 - 100)	
Non private area	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)	
Visual privacy only	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)	
Other	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)	
Do not provide service	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline responded 'don't know/decline to respond' when asked if they provide childcare services or vaccinate children under five

<sup>&</sup>lt;sup>b</sup> Observed childcare area data missing from seven facilities at the baseline

<sup>&</sup>lt;sup>b</sup> Observed childcare area data missing from one facility at baseline.



Table D3.4: Child health care equipment observed and functional, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pediatric scale/salter scale	52	63.5	(49 - 76.4)	68	95.6	(87.6 - 99.1)	
Standing scale/salter scale	52	82.7	(69.7 - 91.8)	68	98.5	(92.1 - 100)	
Height rod	52	88.5	(76.6 - 95.6)	68	98.5	(92.1 - 100)	
Stethoscope	52	86.5	(74.2 - 94.4)	68	97.1	(89.8 - 99.6)	
Thermometer	52	94.2	(84.1 - 98.8)	68	100.0	(94.7 - 100)	
Vaccination, health, or growth & development cards	52	98.1	(89.7 - 100)	68	98.5	(92.1 - 100)	
All equipment observed and functional	52	53.8	(39.5 - 67.8)	68	89.7	(79.9 - 95.8)	

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale

Table D3.5: Child health care equipment observed and functional, basic facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Pediatric scale/salter scale	18	88.9	(65.3 - 98.6)	19	100.0	(82.4 - 100)
Standing scale/salter scale	18	94.4	(72.7 - 99.9)	19	100.0	(82.4 - 100)
Height rod	18	94.4	(72.7 - 99.9)	19	100.0	(82.4 - 100)
Pediatric blood pressure apparatus	18	22.2	(6.4 - 47.6)	19	52.6	(28.9 - 75.6)
Pediatric stethoscope	18	11.1	(1.4 - 34.7)	19	63.2	(38.4 - 83.7)
All equipment observed and functional	18	11.1	(1.4 - 34.7)	19	42.1	(20.3 - 66.5)

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale

Table D3.6: Child health care equipment observed and functional, complete facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Pediatric scale/salter scale	11	90.9	(58.7 - 99.8)	3	100.0	(29.2 - 100)
Standing scale/salter scale	11	90.9	(58.7 - 99.8)	3	100.0	(29.2 - 100)
Height rod	11	90.9	(58.7 - 99.8)	3	100.0	(29.2 - 100)
Pediatric blood pressure apparatus	11	9.1	(0.2 - 41.3)	3	100.0	(29.2 - 100)
Pediatric stethoscope	11	54.5	(23.4 - 83.3)	3	66.7	(9.4 - 99.2)
All equipment observed and functional	11	9.1	(0.2 - 41.3)	3	66.7	(9.4 - 99.2)

<sup>&</sup>lt;sup>a</sup> Baseline data did not capture salter scale

<sup>&</sup>lt;sup>b</sup> Three facilities at the first follow-up did not have a functional pediatric scale and data on salter scales was not collected. These three facilities were excluded from the pediatric scale requirement.

<sup>&</sup>lt;sup>b</sup> One facility at the first follow-up did not have a functional pediatric scale and data on salter scales was not collected. This facility was excluded from the pediatric scale requirement.



Table D3.7: Child health care pharmacy inputs, ambulatory facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Oral rehydration salts	52	84.6	(71.9 - 93.1)	68	94.1	(85.6 - 98.4)
Ferrous sulfate / micronutrients for children	52	48.1	(34 - 62.4)	68	70.6	(58.3 - 81)
Albendazole / mebendazole	52	82.7	(69.7 - 91.8)	68	97.1	(89.8 - 99.6)
Erythromycin / ampicillin / penicillin benzathine	44	84.1	(69.9 - 93.4)	53	98.1	(89.9 - 100)
All drugs observed on day of observation	52	36.5	(23.6 - 51)	68	67.6	(55.2 - 78.5)
All drugs continuously available in past three months	52	34.6	(22 - 49.1)	68	47.1	(34.8 - 59.6)

<sup>&</sup>lt;sup>a</sup> Erythromycin/ampicillin/penicillin benzathine only measured at ambulatory facilities with a doctor

Table D3.8: Child health care pharmacy inputs, basic facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Oral rehydration salts	18	72.2	(46.5 - 90.3)	19	89.5	(66.9 - 98.7)
Ferrous sulfate / micronutrients for children	18	55.6	(30.8 - 78.5)	19	94.7	(74 - 99.9)
Albendazole / mebendazole	18	72.2	(46.5 - 90.3)	19	89.5	(66.9 - 98.7)
Penicillin crystalline / ampicillin / amoxicillin	18	72.2	(46.5 - 90.3)	19	100.0	(82.4 - 100)
Ringer's lactate / Hartmann's / saline solution	18	33.3	(13.3 - 59)	19	94.7	(74 - 99.9)
All drugs observed on day of observation	18	27.8	(9.7 - 53.5)	19	73.7	(48.8 - 90.9)
All drugs continuously available in past three months	18	27.8	(9.7 - 53.5)	19	36.8	(16.3 - 61.6)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D3.9: Child health care pharmacy inputs, complete facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Oral rehydration salts	11	54.5	(23.4 - 83.3)	3	100.0	(29.2 - 100)
Ferrous sulfate / micronutrients for children	11	36.4	(10.9 - 69.2)	3	66.7	(9.4 - 99.2)
Albendazole / mebendazole	11	54.5	(23.4 - 83.3)	3	100.0	(29.2 - 100)
Penicillin crystalline / ampicillin / amoxicillin	11	63.6	(30.8 - 89.1)	3	100.0	(29.2 - 100)
Ringer's lactate / Hartmann's / saline solution	11	45.5	(16.7 - 76.6)	3	100.0	(29.2 - 100)
All drugs observed on day of observation	11	27.3	(6 - 61)	3	66.7	(9.4 - 99.2)
All drugs continuously available in past three months	11	27.3	(6 - 61)	3	33.3	(0.8 - 90.6)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table D3.10: Child health care vaccines, ambulatory facilities with a doctor

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	16	81.2	(54.4 - 96)	27	88.9	(70.8 - 97.6)	
Polio	16	50.0	(24.7 - 75.3)	27	70.4	(49.8 - 86.2)	
Measles, Mumps, Rubella	16	87.5	(61.7 - 98.4)	27	81.5	(61.9 - 93.7)	
Influenza	16	37.5	(15.2 - 64.6)	27	66.7	(46 - 83.5)	
Rotavirus	16	81.2	(54.4 - 96)	27	85.2	(66.3 - 95.8)	
Pneumococcal conjugate	16	31.2	(11 - 58.7)	27	77.8	(57.7 - 91.4)	
BCG	16	81.2	(54.4 - 96)	27	81.5	(61.9 - 93.7)	
All vaccines observed on day of survey	16	18.8	(4 - 45.6)	27	48.1	(28.7 - 68.1)	
All vaccines continuously available in past	16	12.5	(1.6 - 38.3)	27	11.1	(2.4 - 29.2)	
three months							

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



Table D3.11: Child health care vaccines, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	11	100.0	(71.5 - 100)	15	80.0	(51.9 - 95.7)	
Polio	11	45.5	(16.7 - 76.6)	15	66.7	(38.4 - 88.2)	
Measles, Mumps, Rubella	11	100.0	(71.5 - 100)	15	73.3	(44.9 - 92.2)	
Influenza	11	45.5	(16.7 - 76.6)	15	46.7	(21.3 - 73.4)	
Rotavirus	11	90.9	(58.7 - 99.8)	15	80.0	(51.9 - 95.7)	
Pneumococcal conjugate	11	54.5	(23.4 - 83.3)	15	66.7	(38.4 - 88.2)	
BCG	11	90.9	(58.7 - 99.8)	15	93.3	(68.1 - 99.8)	
All vaccines observed on day of survey	11	27.3	(6 - 61)	15	40.0	(16.3 - 67.7)	
All vaccines continuously available in past three months	11	0.0	(0 - 28.5)	15	6.7	(0.2 - 31.9)	

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

Table D3.12: Child health care vaccines, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent / (DPT + Hep B + HiB)	8	50.0	(15.7 - 84.3)	3	66.7	(9.4 - 99.2)	
Polio	8	50.0	(15.7 - 84.3)	3	66.7	(9.4 - 99.2)	
Measles, Mumps, Rubella	8	62.5	(24.5 - 91.5)	3	66.7	(9.4 - 99.2)	
Influenza	8	0.0	(0 - 36.9)	3	100.0	(29.2 - 100)	
Rotavirus	8	62.5	(24.5 - 91.5)	3	66.7	(9.4 - 99.2)	
Pneumococcal conjugate	8	50.0	(15.7 - 84.3)	3	66.7	(9.4 - 99.2)	
BCG	8	50.0	(15.7 - 84.3)	3	100.0	(29.2 - 100)	
All vaccines observed on day of survey	8	0.0	(0 - 36.9)	3	66.7	(9.4 - 99.2)	
All vaccines continuously available in past three months	8	0.0	(0 - 36.9)	3	33.3	(0.8 - 90.6)	

<sup>&</sup>lt;sup>a</sup> Vaccine three-month stock only captured for MMR and BCG at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.

<sup>&</sup>lt;sup>b</sup> DPT + HepB + Hib not captured as Pentavalent alternatives at baseline and first follow-up.



Table D3.13: Child health care composite indicator, ambulatory facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
All equipment observed and functional	52	53.8	(39.5 - 67.8)	68	89.7	(79.9 - 95.8)
All pharmacy inputs continuously available in past three months	52	34.6	(22 - 49.1)	68	47.1	(34.8 - 59.6)
All vaccines continuously available in past three months	16	12.5	(1.6 - 38.3)	27	11.1	(2.4 - 29.2)
Child health care provision according to standard	52	9.6	(3.2 - 21)	68	27.9	(17.7 - 40.1)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up

Table D3.14: Child health care composite indicator, basic facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
All equipment observed and functional	18 18	11.1 27.8	(1.4 - 34.7) (9.7 - 53.5)	19 19	42.1 36.8	(20.3 - 66.5) (16.3 - 61.6)
All pharmacy inputs continuously available in past three months	10	27.0	(9.7 - 55.5)	19	30.6	(10.5 - 01.6)
All vaccines continuously available in past three months	11	0.0	(0 - 28.5)	15	6.7	(0.2 - 31.9)
Child health care provision according to standard	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up

Table D3.15: Child health care composite indicator, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
All equipment observed and functional All pharmacy inputs continuously available in past three months	11 11	9.1 27.3	(0.2 - 41.3) (6 - 61)	3	66.7 33.3	(9.4 - 99.2) (0.8 - 90.6)
All vaccines continuously available in past three months	8	0.0	(0 - 36.9)	3	33.3	(0.8 - 90.6)
Child health care provision according to standard	11	0.0	(0 - 28.5)	3	0.0	(0 - 70.8)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs and vaccines at baseline and first follow-up



Table D3.16: Child health care pharmacy inputs, ambulatory facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
All symptoms recorded:	201	16.9	(12 - 22.8)	284	72.2	(66.6 - 77.3)	
General condition	201	37.8	(31.1 - 44.9)	284	99.6	(98.1 - 100)	
Eyes	201	29.9	(23.6 - 36.7)	284	91.2	(87.3 - 94.2)	
Thirst	201	20.4	(15.1 - 26.6)	284	79.2	(74 - 83.8)	
Skin fold	201	25.4	(19.5 - 32)	284	90.5	(86.5 - 93.6)	
All checkups performed:	201	19.4	(14.2 - 25.6)	284	30.6	(25.3 - 36.4)	
Capillary refill	201	21.4	(15.9 - 27.7)	284	64.4	(58.6 - 70)	
Pulse	201	36.3	(29.7 - 43.4)	284	53.5	(47.5 - 59.4)	
Administered oral rehydration salts	201	57.7	(50.6 - 64.6)	284	97.5	(95 - 99)	
Child treated appropriately for diarrhea	201	10.4	(6.6 - 15.5)	284	22.9	(18.1 - 28.2)	



Table D4.1: Immunization services provision, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vaccinates children under five	59	93.2	(83.5 - 98.1)	68	100.0	(94.7 - 100)	
Immunization area							
Visual and auditory privacy	54	68.5	(54.4 - 80.5)	68	79.4	(67.9 - 88.3)	
Non private area	54	27.8	(16.5 - 41.6)	68	19.1	(10.6 - 30.5)	
Visual privacy only	54	1.9	(0 - 9.9)	68	1.5	(0 - 7.9)	
Other	54	1.9	(0 - 9.9)	68	0.0	(0 - 5.3)	
Do not provide service	54	0.0	(0 - 6.6)	68	0.0	(0 - 5.3)	

<sup>&</sup>lt;sup>a</sup> Under-five vaccine provision data missing from one facility at the baseline

Table D4.2: Immunization services provision, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vaccinates children under five	18	100.0	(81.5 - 100)	19	89.5	(66.9 - 98.7)	
Immunization area							
Visual and auditory privacy	18	94.4	(72.7 - 99.9)	19	89.5	(66.9 - 98.7)	
Non private area	18	5.6	(0.1 - 27.3)	19	10.5	(1.3 - 33.1)	
Visual privacy only	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Other	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Do not provide service	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	

Table D4.3: Immunization services provision, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vaccinates children under five	11	63.6	(30.8 - 89.1)	3	100	(29.2 - 100)	
Immunization area							
Visual and auditory privacy	10	100.0	(69.2 - 100)	3	100	(29.2 - 100)	
Non private area	10	0.0	(0 - 30.8)	3	0	(0 - 70.8)	
Visual privacy only	10	0.0	(0 - 30.8)	3	0	(0 - 70.8)	
Other	10	0.0	(0 - 30.8)	3	0	(0 - 70.8)	
Do not provide service	10	0.0	(0 - 30.8)	3	0	(0 - 70.8)	

<sup>&</sup>lt;sup>a</sup> Under-five vaccine provision data missing from one facility at the baseline

<sup>&</sup>lt;sup>b</sup> Immunization area data missing from six facilities at the baseline

<sup>&</sup>lt;sup>b</sup> Immunization area data missing from two facilities at the baseline



Table D4.4: Vaccine storage, ambulatory facilities which provide immunization services to children under five

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Stores vaccines	55	36.4	(23.8 - 50.4)	68	41.2	(29.4 - 53.8)
Collected from another health facility	55	45.5	(32 - 59.4)	68	33.8	(22.8 - 46.3)
Delivered when immunization services provided	55	14.5	(6.5 - 26.7)	68	23.5	(14.1 - 35.4)
Does not store vaccines	55	0.0	(0 - 6.5)	68	0.0	(0 - 5.3)

Table D4.5: Vaccine storage, basic facilities which provide immunization services to children under five

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Stores vaccines .	18	77.8	(52.4 - 93.6)	17	88.2	(63.6 - 98.5)	
Collected from another health facility	18	16.7	(3.6 - 41.4)	17	11.8	(1.5 - 36.4)	
Delivered when immunization services provided	18	5.6	(0.1 - 27.3)	17	0.0	(0 - 19.5)	
Does not store vaccines	18	0.0	(0 - 18.5)	17	0.0	(0 - 19.5)	

Table D4.6: Vaccine storage, complete facilities which provide immunization services to children under five

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
Stores vaccines	7	71.4	(29 - 96.3)	3	100	(29.2 - 100)
Collected from another health facility	7	28.6	(3.7 - 71)	3	0	(0 - 70.8)
Delivered when immunization services provided	7	0.0	(0 - 41)	3	0	(0 - 70.8)
Does not store vaccines	7	0.0	(0 - 41)	3	0	(0 - 70.8)



Table D4.7: Vaccine supply, ambulatory facilities

		Ва	seline		Second Follow-Up			
	N	%	CI	N	%	CI		
Ordering strategy								
Determines own need	20	100	(83.2 - 100)	28	92.9	(76.5 - 99.1)		
Need determined elsewhere	20	0	(0 - 16.8)	28	7.1	(0.9 - 23.5)		
Both (differ by vaccine)	20	0	(0 - 16.8)	28	0.0	(0 - 12.3)		
Don't know	20	0	(0 - 16.8)	28	0.0	(0 - 12.3)		
Time to receive supplies								
One day	20	80	(56.3 - 94.3)	28	71.4	(51.3 - 86.8)		
2 - 7 days	20	15	(3.2 - 37.9)	28	21.4	(8.3 - 41)		
More than one week	20	5	(0.1 - 24.9)	28	7.1	(0.9 - 23.5)		
Reception of quantity ordered								
Always	20	55	(31.5 - 76.9)	28	32.1	(15.9 - 52.4)		
Almost always	20	40	(19.1 - 63.9)	28	53.6	(33.9 - 72.5)		
Almost never	20	5	(0.1 - 24.9)	28	14.3	(4 - 32.7)		
Don't Know	20	0	(0 - 16.8)	28	0.0	(0 - 12.3)		

Table D4.8: Vaccine supply, basic facilities

		Base	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Ordering strategy								
Determines own need	14	100.0	(76.8 - 100)	15	93.3	(68.1 - 99.8)		
Need determined elsewhere	14	0.0	(0 - 23.2)	15	0.0	(0 - 21.8)		
Both (differ by vaccine)	14	0.0	(0 - 23.2)	15	6.7	(0.2 - 31.9)		
Don't know	14	0.0	(0 - 23.2)	15	0.0	(0 - 21.8)		
Time to receive supplies								
One day	14	78.6	(49.2 - 95.3)	15	66.7	(38.4 - 88.2)		
2 - 7 days	14	21.4	(4.7 - 50.8)	15	26.7	(7.8 - 55.1)		
More than one week	14	0.0	(0 - 23.2)	15	6.7	(0.2 - 31.9)		
Reception of quantity ordered								
Always	14	35.7	(12.8 - 64.9)	15	20.0	(4.3 - 48.1)		
Almost always	14	57.1	(28.9 - 82.3)	15	60.0	(32.3 - 83.7)		
Almost never	14	7.1	(0.2 - 33.9)	15	20.0	(4.3 - 48.1)		
Don't Know	14	0.0	(0 - 23.2)	15	0.0	(0 - 21.8)		

<sup>&</sup>lt;sup>a</sup> One facility at the first follow-up reported 'don't know/decline to respond' when asked about the time to receive supplies



Table D4.9: Vaccine supply, complete facilities

		Ва	seline		SecondFollow-Up			
	N	%	CI	N	%	CI		
Ordering strategy								
Determines own need	5	100	(47.8 - 100)	3	66.7	(9.4 - 99.2)		
Need determined elsewhere	5	0	(0 - 52.2)	3	33.3	(0.8 - 90.6)		
Both (differ by vaccine)	5	0	(0 - 52.2)	3	0.0	(0 - 70.8)		
Don't know	5	0	(0 - 52.2)	3	0.0	(0 - 70.8)		
Time to receive supplies								
One day	5	80	(28.4 - 99.5)	3	66.7	(9.4 - 99.2)		
2 - 7 days	5	0	(0 - 52.2)	3	0.0	(0 - 70.8)		
More than one week	5	20	(0.5 - 71.6)	3	33.3	(0.8 - 90.6)		
Reception of quantity ordered								
Always	5	80	(28.4 - 99.5)	3	0.0	(0 - 70.8)		
Almost always	5	0	(0 - 52.2)	3	66.7	(9.4 - 99.2)		
Almost never	5	20	(0.5 - 71.6)	3	33.3	(0.8 - 90.6)		
Don't Know	5	0	(0 - 52.2)	3	0.0	(0 - 70.8)		

Table D4.10: Vaccines observed day of survey, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent	18	77.8	(52.4 - 93.6)	30	90.0	(73.5 - 97.9)	
DPT alone	3	0.0	(0 - 70.8)	3	33.3	(0.8 - 90.6)	
Hepatitis B alone	-	-	-	3	0.0	(0 - 70.8)	
Haemophilus Influenzae Type B alone	-	-	-	3	0.0	(0 - 70.8)	
Polio / IPV	18	50.0	(26 - 74)	30	73.3	(54.1 - 87.7)	
Measles, mumps, rubella	18	83.3	(58.6 - 96.4)	30	83.3	(65.3 - 94.4)	
Rotavirus	18	77.8	(52.4 - 93.6)	30	86.7	(69.3 - 96.2)	
Pneumococcal conjugate	18	27.8	(9.7 - 53.5)	30	80.0	(61.4 - 92.3)	
BCG	18	72.2	(46.5 - 90.3)	30	83.3	(65.3 - 94.4)	
Influenza	18	33.3	(13.3 - 59)	30	66.7	(47.2 - 82.7)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.



Table D4.11: Vaccines observed day of survey, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent	11	100.0	(71.5 - 100)	15	80.0	(51.9 - 95.7)	
DPT alone	-	-	-	3	33.3	(0.8 - 90.6)	
Hepatitis B alone	-	-	-	3	0.0	(0 - 70.8)	
Haemophilus Influenzae Type B alone	-	-	-	3	33.3	(0.8 - 90.6)	
Polio / IPV	11	45.5	(16.7 - 76.6)	15	66.7	(38.4 - 88.2)	
Measles, mumps, rubella	11	100.0	(71.5 - 100)	15	73.3	(44.9 - 92.2)	
Rotavirus	11	90.9	(58.7 - 99.8)	15	80.0	(51.9 - 95.7)	
Pneumococcal conjugate	11	54.5	(23.4 - 83.3)	15	66.7	(38.4 - 88.2)	
BCG	11	90.9	(58.7 - 99.8)	15	93.3	(68.1 - 99.8)	
Influenza	11	45.5	(16.7 - 76.6)	15	46.7	(21.3 - 73.4)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.

Table D4.12: Vaccines observed day of survey, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Pentavalent	8	50.0	(15.7 - 84.3)	3	66.7	(9.4 - 99.2)	
DPT alone	4	25.0	(0.6 - 80.6)	1	0.0	(0 - 97.5)	
Hepatitis B alone	-	-	-	1	0.0	(0 - 97.5)	
Haemophilus Influenzae Type B alone	-	-	-	1	0.0	(0 - 97.5)	
Polio / IPV	8	50.0	(15.7 - 84.3)	3	66.7	(9.4 - 99.2)	
Measles, mumps, rubella	8	62.5	(24.5 - 91.5)	3	66.7	(9.4 - 99.2)	
Rotavirus	8	62.5	(24.5 - 91.5)	3	66.7	(9.4 - 99.2)	
Pneumococcal conjugate	8	50.0	(15.7 - 84.3)	3	66.7	(9.4 - 99.2)	
BCG	8	50.0	(15.7 - 84.3)	3	100.0	(29.2 - 100)	
Influenza	8	0.0	(0 - 36.9)	3	100.0	(29.2 - 100)	

<sup>&</sup>lt;sup>a</sup> HepB alone + Hib alone not captured as Pentavalent alternatives at baseline and first follow-up.



Table D4.13: Cold chain composite indicator, ambulatory facilities

		Base	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Temperature monitoring chart for each functional refrigerator	16	68.8	(41.3 - 89)	29	100.0	(88.1 - 100)	
Temperature recorded twice daily during past 30 days	16	68.8	(41.3 - 89)	29	86.2	(68.3 - 96.1)	
Temperature is 2-8 degrees celcius on the day of the survey	16	68.8	(41.3 - 89)	29	89.7	(72.6 - 97.8)	
Temperature is 2-8 degrees celcius in the past 30 days	16	100.0	(79.4 - 100)	22	100.0	(84.6 - 100)	
Cold chain according to standard	16	68.8	(41.3 - 89)	29	79.3	(60.3 - 92)	

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart

Table D4.14: Cold chain composite indicator, basic facilities

		Base	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Temperature monitoring chart for each functional refrigerator	11	90.9	(58.7 - 99.8)	16	93.8	(69.8 - 99.8)	
Temperature recorded twice daily during past 30 days	11	90.9	(58.7 - 99.8)	16	93.8	(69.8 - 99.8)	
Temperature is 2-8 degrees celcius on the day of the survey	11	90.9	(58.7 - 99.8)	16	93.8	(69.8 - 99.8)	
Temperature is 2-8 degrees celcius in the past 30 days	11	100.0	(71.5 - 100)	13	84.6	(54.6 - 98.1)	
Cold chain according to standard	11	90.9	(58.7 - 99.8)	16	81.2	(54.4 - 96)	

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart

Table D4.15: Cold chain composite indicator, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Temperature monitoring chart for each functional refrigerator	7	85.7	(42.1 - 99.6)	3	100	(29.2 - 100)
Temperature recorded twice daily during past 30 days	7	85.7	(42.1 - 99.6)	3	100	(29.2 - 100)
Temperature is 2-8 degrees celcius on the day of the survey	7	85.7	(42.1 - 99.6)	3	100	(29.2 - 100)
Temperature is 2-8 degrees celcius in the past 30 days	7	100.0	(59 - 100)	3	100	(29.2 - 100)
Cold chain according to standard	7	85.7	(42.1 - 99.6)	3	100	(29.2 - 100)

<sup>&</sup>lt;sup>a</sup> If temperature is not 2-8 degrees in the past 30 days, the facility will pass the indicator if a record of actions was written on the chart



Table D5.1: Family planning services provision, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Offers family planning services	59	98.3	(90.9 - 100)	68	100.0	(94.7 - 100)	
Family planning area							
Visual and auditory privacy	52	78.8	(65.3 - 88.9)	68	86.8	(76.4 - 93.8)	
Non private area	52	9.6	(3.2 - 21)	68	10.3	(4.2 - 20.1)	
Visual privacy only	52	1.9	(0 - 10.3)	68	2.9	(0.4 - 10.2)	
Other	52	9.6	(3.2 - 21)	68	0.0	(0 - 5.3)	
Do not provide service	52	0.0	(0 - 6.8)	68	0.0	(0 - 5.3)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline reported 'don't know/decline to respond' when asked about family planning provision

Table D5.2: Family planning services provision, basic facilities

		Base	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Offers family planning services	18	100.0	(81.5 - 100)	19	94.7	(74 - 99.9)	
Family planning area							
Visual and auditory privacy	18	94.4	(72.7 - 99.9)	19	84.2	(60.4 - 96.6)	
Non private area	18	0.0	(0 - 18.5)	19	5.3	(0.1 - 26)	
Visual privacy only	18	0.0	(0 - 18.5)	19	5.3	(0.1 - 26)	
Other	18	5.6	(0.1 - 27.3)	19	5.3	(0.1 - 26)	
Do not provide service	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	

Table D5.3: Family planning services provision, complete facilities

		Bas	eline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Offers family planning services	11	90.9	(58.7 - 99.8)	3	66.7	(9.4 - 99.2)	
Family planning area							
Visual and auditory privacy	8	100.0	(63.1 - 100)	3	100.0	(29.2 - 100)	
Non private area	8	0.0	(0 - 36.9)	3	0.0	(0 - 70.8)	
Visual privacy only	8	0.0	(0 - 36.9)	3	0.0	(0 - 70.8)	
Other	8	0.0	(0 - 36.9)	3	0.0	(0 - 70.8)	
Do not provide service	8	0.0	(0 - 36.9)	3	0.0	(0 - 70.8)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline reported 'don't know/decline to respond' when asked about family planning provision

<sup>&</sup>lt;sup>b</sup> Missing family planning area data from eight facilities at the baseline

<sup>&</sup>lt;sup>b</sup> Missing family planning area data from four facilities at the baseline



Table D5.4: Family planning services composite indicator, ambulatory facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
All methods observed day of survey:	49	83.7	(70.3 - 92.7)	66	92.4	(83.2 - 97.5)
Male condom	49	95.9	(86 - 99.5)	66	97.0	(89.5 - 99.6)
Oral contraceptive pill	49	89.8	(77.8 - 96.6)	66	92.4	(83.2 - 97.5)
Injectable	49	91.8	(80.4 - 97.7)	66	98.5	(91.8 - 100)
Family planning services according to standard	49	71.4	(56.7 - 83.4)	66	78.8	(67 - 87.9)

<sup>&</sup>lt;sup>a</sup> Family planning according to the standard includes no stock out of male condoms, pills, and injectables in the last three months

Table D5.5: Family planning services composite indicator, basic facilities

		Bas	seline	SecondFollow-Up		
	N	%	CI	N	%	CI
All methods observed day of survey:	15	26.7	(7.8 - 55.1)	19	57.9	(33.5 - 79.7)
Male condom	15	80.0	(51.9 - 95.7)	19	100.0	(82.4 - 100)
Oral contraceptive pill	15	73.3	(44.9 - 92.2)	19	94.7	(74 - 99.9)
Injectable	15	66.7	(38.4 - 88.2)	19	100.0	(82.4 - 100)
Intrauterine device	15	46.7	(21.3 - 73.4)	19	63.2	(38.4 - 83.7)
Intrauterine device insertion kit	15	60.0	(32.3 - 83.7)	19	94.7	(74 - 99.9)
Family planning services according to standard	15	26.7	(7.8 - 55.1)	19	42.1	(20.3 - 66.5)

<sup>&</sup>lt;sup>a</sup> Family planning accoding to the stand includes iud insertion kits available on the day of the survey + no stock out of male condoms, pills, injectables, and IUDs on the day of the survey



Table D5.6: Family planning services composite indicator, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
All methods observed day of survey:	7	85.7	(42.1 - 99.6)	3	100.0	(29.2 - 100)
Male condom	7	100.0	(59 - 100)	3	100.0	(29.2 - 100)
Oral contraceptive pill	7	100.0	(59 - 100)	3	100.0	(29.2 - 100)
Injectable	7	85.7	(42.1 - 99.6)	3	100.0	(29.2 - 100)
Intrauterinedevice	7	100.0	(59 - 100)	3	100.0	(29.2 - 100)
Intrauterine device insertion kit	7	100.0	(59 - 100)	3	100.0	(29.2 - 100)
All methods continuously available in past	7	57.1	(18.4 - 90.1)	3	66.7	(9.4 - 99.2)
three months						
Doctor trained in tubal ligation	7	85.7	(42.1 - 99.6)	3	100.0	(29.2 - 100)
Doctor trained in vasectomy	7	42.9	(9.9 - 81.6)	3	66.7	(9.4 - 99.2)
Family planning services according to standard	7	28.6	(3.7 - 71)	3	66.7	(9.4 - 99.2)

<sup>&</sup>lt;sup>a</sup> Family planning accoding to the stand includes iud insertion kits available on the day of the survey + no stock out of male condoms, pills, injectables, and IUDs on the day of the survey + doctor trained in tuballigation and vasectomy

Table D5.7: Family planning methods observed, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	Ν	%	CI	
Male condom	49	95.9	(86 - 99.5)	66	97.0	(89.5 - 99.6)	
Female condom	49	12.2	(4.6 - 24.8)	66	81.8	(70.4 - 90.2)	
Oral contraceptive pill	49	89.8	(77.8 - 96.6)	66	92.4	(83.2 - 97.5)	
Injectable	49	91.8	(80.4 - 97.7)	66	98.5	(91.8 - 100)	
Implant	-	-	-	66	87.9	(77.5 - 94.6)	
Intrauterine device	49	57.1	(42.2 - 71.2)	66	63.6	(50.9 - 75.1)	
Emergency contraceptive pill	49	26.5	(14.9 - 41.1)	66	63.6	(50.9 - 75.1)	
Spermicide	49	0.0	(0 - 7.3)	66	0.0	(0 - 5.4)	
Diaphragm	49	0.0	(0 - 7.3)	66	0.0	(0 - 5.4)	
Doctor trained to insert IUD	57	73.7	(60.3 - 84.5)	68	76.5	(64.6 - 85.9)	
Nurse trained to insert IUD	-	-	-	67	70.1	(57.7 - 80.7)	
Doctor trained to place implant	-	-	-	68	76.5	(64.6 - 85.9)	
Nurse trained to place implant	-	-	-	68	88.2	(78.1 - 94.8)	

<sup>&</sup>lt;sup>a</sup> Implant not captured at ambulatory facilities at the baseline

<sup>&</sup>lt;sup>b</sup> The baseline and first follow-up data did not capture if the facility has a trained doctor for implants, or a nurse for implants or IUD insertion



Table D5.8: Family planning methods observed, basic facilities

		Bas	seline		Second Follow-Up				
	N	%	CI	N	%	CI			
Male condom	15	80.0	(51.9 - 95.7)	19	100.0	(82.4 - 100)			
Female condom	15	26.7	(7.8 - 55.1)	19	84.2	(60.4 - 96.6)			
Oral contraceptive pill	15	73.3	(44.9 - 92.2)	19	94.7	(74 - 99.9)			
Injectable	15	66.7	(38.4 - 88.2)	19	100.0	(82.4 - 100)			
Implant	15	13.3	(1.7 - 40.5)	19	100.0	(82.4 - 100)			
Intrauterine device	15	46.7	(21.3 - 73.4)	19	63.2	(38.4 - 83.7)			
IUD insertion kit	15	60.0	(32.3 - 83.7)	19	94.7	(74 - 99.9)			
Emergency contraceptive pill	15	26.7	(7.8 - 55.1)	19	73.7	(48.8 - 90.9)			
Spermicide	15	0.0	(0 - 21.8)	19	0.0	(0 - 17.6)			
Diaphragm	15	6.7	(0.2 - 31.9)	19	0.0	(0 - 17.6)			
Doctor trained to insert IUD	-	-	-	18	100.0	(81.5 - 100)			
Nurse trained to insert IUD	-	-	-	18	83.3	(58.6 - 96.4)			
Doctor trained to place implant	-	-	-	18	100.0	(81.5 - 100)			
Nurse trained to place implant	-	-	-	18	100.0	(81.5 - 100)			
Trained doctor for tubal ligation	18	16.7	(3.6 - 41.4)	18	38.9	(17.3 - 64.3)			
Trained doctor for vasectomy	18	11.1	(1.4 - 34.7)	18	33.3	(13.3 - 59)			

<sup>&</sup>lt;sup>a</sup> Data on trained doctors and nurses for IUD and implant insertion was not captured at basic and complete facilities at the baseline and first follow-up

Table D5.9: Family planning methods observed, complete facilities

		Bas	seline		Second F	ollow-Up
	N	%	CI	N	%	CI
Male condom	9	100.0	(66.4 - 100)	3	100.0	(29.2 - 100)
Female condom	9	0.0	(0 - 33.6)	3	100.0	(29.2 - 100)
Oral contraceptive pill	9	100.0	(66.4 - 100)	3	100.0	(29.2 - 100)
Injectable	9	88.9	(51.8 - 99.7)	3	100.0	(29.2 - 100)
Implant	9	22.2	(2.8 - 60)	3	100.0	(29.2 - 100)
Intrauterine device	9	88.9	(51.8 - 99.7)	3	100.0	(29.2 - 100)
IUD insertion kit	9	100.0	(66.4 - 100)	3	100.0	(29.2 - 100)
Emergency contraceptive pill	9	55.6	(21.2 - 86.3)	3	33.3	(0.8 - 90.6)
Spermicide	9	0.0	(0 - 33.6)	3	0.0	(0 - 70.8)
Diaphragm	9	11.1	(0.3 - 48.2)	3	0.0	(0 - 70.8)
Doctor trained to insert IUD	-	-	-	2	100.0	(15.8 - 100)
Nurse trained to insert IUD	-	-	-	2	100.0	(15.8 - 100)
Doctor trained to place implant	-	-	-	2	100.0	(15.8 - 100)
Nurse trained to place implant	-	-	-	2	100.0	(15.8 - 100)
Trained doctor for tubal ligation	9	88.9	(51.8 - 99.7)	3	100.0	(29.2 - 100)
Trained doctor for vasectomy	9	44.4	(13.7 - 78.8)	3	66.7	(9.4 - 99.2)

<sup>&</sup>lt;sup>a</sup> Data on trained doctors and nurses for IUD and implant insertion was not captured at basic and complete facilities at the baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Data on trained doctor for tubal ligation and vasectomy missing for one facility at the second follow-up due to survey logic. Data on trained doctor/nurse for IUD and implant insertion missing for one facility at the second follow-up due to survey logic.



Table D6.1: Antenatal care service provision, ambulatory facilities

		Bas	seline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Offers antenatal care services	59	98.3	(90.9 - 100)	68	100.0	(94.7 - 100)	
Antenatal care area							
Visual and auditory privacy	56	83.9	(71.7 - 92.4)	68	95.6	(87.6 - 99.1)	
Visual privacy only	56	1.8	(0 - 9.6)	68	1.5	(0 - 7.9)	
Non private area	56	14.3	(6.4 - 26.2)	68	2.9	(0.4 - 10.2)	
Other	56	0.0	(0 - 6.4)	68	0.0	(0 - 5.3)	
Do not provide service	56	0.0	(0 - 6.4)	68	0.0	(0 - 5.3)	

<sup>&</sup>lt;sup>a</sup> One facility at the baseline reported 'don't know/decline to respond' when asked about ANC service provision

Table D6.2: Antenatal care and delivery service provision, basic facilities

		Base	eline		Second Follow-Up		
	N	%	CI	N	%	CI	
Offers antenatal care services	18	100.0	(81.5 - 100)	19	78.9	(54.4 - 93.9)	
Offers (non-urgent) delivery services	18	83.3	(58.6 - 96.4)	18	94.4	(72.7 - 99.9)	
Antenatal care area							
Visual and auditory privacy	18	100.0	(81.5 - 100)	19	94.7	(74 - 99.9)	
Visual privacy only	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Non private area	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Other	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Do not provide service	18	0.0	(0 - 18.5)	19	5.3	(0.1 - 26)	
Delivery area							
Visual and auditory privacy	18	100.0	(81.5 - 100)	19	100.0	(82.4 - 100)	
Visual privacy only	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Non private area	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Other	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	
Do not provide service	18	0.0	(0 - 18.5)	19	0.0	(0 - 17.6)	

<sup>&</sup>lt;sup>b</sup> ANC room data missing from four facilities at the baseline



Table D6.3: Antenatal care and delivery service provision, complete facilities

		Base	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Offers antenatal care services	11	90.9	(58.7 - 99.8)	3	0	(0 - 70.8)
Offers (non-urgent) delivery services	10	90.0	(55.5 - 99.7)	3	100	(29.2 - 100)
Antenatal care area						
Visual and auditory privacy	9	100.0	(66.4 - 100)	3	100	(29.2 - 100)
Visual privacy only	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)
Non private area	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)
Other	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)
Do not provide service	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)
Delivery area						
Visual and auditory privacy	9	100.0	(66.4 - 100)	3	100	(29.2 - 100)
Visual privacy only	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)
Non private area	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)
Other	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)
Do not provide service	9	0.0	(0 - 33.6)	3	0	(0 - 70.8)

<sup>&</sup>lt;sup>a</sup> ANC area missing from one facility at baseline. Delivery area data missing from three facilities at baseline..

Table D6.4: ANC and PPC equipment observed and functional, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Scale	56	78.6	(65.6 - 88.4)	68	98.5	(92.1 - 100)	
Height rod	56	89.3	(78.1 - 96)	68	98.5	(92.1 - 100)	
Gynecological exam table	50	80.0	(66.3 - 90)	68	95.6	(87.6 - 99.1)	
Lamp	56	62.5	(48.5 - 75.1)	68	89.7	(79.9 - 95.8)	
CLAP / measuring tape	56	30.4	(18.8 - 44.1)	68	94.1	(85.6 - 98.4)	
Blood pressure apparatus	56	82.1	(69.6 - 91.1)	68	94.1	(85.6 - 98.4)	
Stethoscope	56	83.9	(71.7 - 92.4)	68	97.1	(89.8 - 99.6)	
Maternal history card	56	92.9	(82.7 - 98)	68	89.7	(79.9 - 95.8)	
ANC card	56	92.9	(82.7 - 98)	68	97.1	(89.8 - 99.6)	
All ANC/PPC equipment observed and functional	56	19.6	(10.2 - 32.4)	68	66.2	(53.7 - 77.2)	



Table D6.5: ANC and PPC equipment observed and functional, basic facilities

		Bas	eline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Scale	18	83.3	(58.6 - 96.4)	18	100.0	(81.5 - 100)	
Height rod	18	94.4	(72.7 - 99.9)	18	100.0	(81.5 - 100)	
Gynecological exam table	18	88.9	(65.3 - 98.6)	18	100.0	(81.5 - 100)	
Lamp	18	66.7	(41 - 86.7)	18	94.4	(72.7 - 99.9)	
CLAP / measuring tape	18	11.1	(1.4 - 34.7)	18	100.0	(81.5 - 100)	
Blood pressure apparatus	18	88.9	(65.3 - 98.6)	18	100.0	(81.5 - 100)	
Stethoscope	18	83.3	(58.6 - 96.4)	18	100.0	(81.5 - 100)	
Maternal history card	18	100.0	(81.5 - 100)	18	88.9	(65.3 - 98.6)	
ANC card	18	100.0	(81.5 - 100)	18	83.3	(58.6 - 96.4)	
Intrauterine device kit	18	55.6	(30.8 - 78.5)	18	94.4	(72.7 - 99.9)	
All ANC/PPC equipment observed and functional	18	5.6	(0.1 - 27.3)	18	83.3	(58.6 - 96.4)	

Table D6.6: ANC and PPC equipment observed and functional, complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Scale	9	77.8	(40 - 97.2)	3	100.0	(29.2 - 100)	
Height rod	9	88.9	(51.8 - 99.7)	3	100.0	(29.2 - 100)	
Gynecological exam table	9	88.9	(51.8 - 99.7)	3	100.0	(29.2 - 100)	
Lamp	9	88.9	(51.8 - 99.7)	3	100.0	(29.2 - 100)	
CLAP / measuring tape	9	33.3	(7.5 - 70.1)	3	100.0	(29.2 - 100)	
Blood pressure apparatus	9	66.7	(29.9 - 92.5)	3	100.0	(29.2 - 100)	
Stethoscope	9	77.8	(40 - 97.2)	3	100.0	(29.2 - 100)	
Maternal history card	9	88.9	(51.8 - 99.7)	3	66.7	(9.4 - 99.2)	
ANC card	9	66.7	(29.9 - 92.5)	3	66.7	(9.4 - 99.2)	
Intrauterine device kit	9	100.0	(66.4 - 100)	3	100.0	(29.2 - 100)	
All ANC/PPC equipment observed and functional	9	11.1	(0.3 - 48.2)	3	66.7	(9.4 - 99.2)	



Table D6.7: ANC and PPC drugs observed, ambulatory facilities

	Baseline			SecondFollow-Up		
	N	%	CI	N	%	CI
Multivitamins/(Iron + Folic acid	56	76.8	(63.6 - 87)	68	98.5	(92.1 - 100)
Ayre's palettes	46	43.5	(28.9 - 58.9)	53	94.3	(84.3 - 98.8)
Slides	46	63.0	(47.5 - 76.8)	53	96.2	(87 - 99.5)
Nitrofurantoin	46	69.6	(54.2 - 82.3)	53	69.8	(55.7 - 81.7)
Erythromycin/Ampicillin/Penicillin	46	82.6	(68.6 - 92.2)	53	98.1	(89.9 - 100)
Tetanus vaccine (if facility stores vaccines)	20	45.0	(23.1 - 68.5)	27	88.9	(70.8 - 97.6)
All drugs observed on the day of the suvey	56	23.2	(13 - 36.4)	68	67.6	(55.2 - 78.5)
All drugs available on the day of the survey + no stock out in the last 3 months	56	21.4	(11.6 - 34.4)	68	38.2	(26.7 - 50.8)

<sup>&</sup>lt;sup>a</sup> Ambulatory facilities without a doctor only required to have multivitamins / (iron + folic acid). Tetanus vaccine only required if an ambulatory facility with a doctor stores vaccines.

Table D6.8: ANC and PPC drugs observed, basic facilities

	Baseline			SecondFollow-Up		
	N	%	CI	N	%	CI
Multivitamins/(Iron + Folic acid	18	72.2	(46.5 - 90.3)	18	100.0	(81.5 - 100)
Ayre's palettes	18	5.6	(0.1 - 27.3)	18	94.4	(72.7 - 99.9)
Slides	18	5.6	(0.1 - 27.3)	18	66.7	(41 - 86.7)
Nitrofurantoin	18	44.4	(21.5 - 69.2)	18	77.8	(52.4 - 93.6)
Cephalexin	18	22.2	(6.4 - 47.6)	18	55.6	(30.8 - 78.5)
Tetanus vaccine (if facility stores vaccines)	11	9.1	(0.2 - 41.3)	14	85.7	(57.2 - 98.2)
All drugs observed on the day of the suvey	18	0.0	(0 - 18.5)	18	27.8	(9.7 - 53.5)
All drugs available on the day of the survey + no stock out in the last 3 months	18	0.0	(0 - 18.5)	18	11.1	(1.4 - 34.7)

<sup>&</sup>lt;sup>a</sup> Tetanus vaccine only required if facility stores vaccines.

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D6.9: ANC and PPC drugs observed, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Multivitamins/(Iron + Folic acid	9	55.6	(21.2 - 86.3)	3	100.0	(29.2 - 100)	
Ayre's palettes	9	11.1	(0.3 - 48.2)	3	66.7	(9.4 - 99.2)	
Slides	9	44.4	(13.7 - 78.8)	3	66.7	(9.4 - 99.2)	
Nitrofurantoin	9	44.4	(13.7 - 78.8)	3	100.0	(29.2 - 100)	
Cephalexin	9	44.4	(13.7 - 78.8)	3	100.0	(29.2 - 100)	
Tetanus vaccine (if facility stores vaccines)	7	42.9	(9.9 - 81.6)	3	100.0	(29.2 - 100)	
All drugs observed on the day of the suvey	9	0.0	(0 - 33.6)	3	66.7	(9.4 - 99.2)	
All drugs available on the day of the survey + no stock out in the last 3 months	9	0.0	(0 - 33.6)	3	33.3	(0.8 - 90.6)	

<sup>&</sup>lt;sup>a</sup> Tetanus vaccine only required if facility stores vaccines.

Table D6.10: ANC and PPC laboratory inputs, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Rapid HIV test	12	91.7	(61.5 - 99.8)	16	93.8	(69.8 - 99.8)	
Rapid syphilis test	12	83.3	(51.6 - 97.9)	16	87.5	(61.7 - 98.4)	
Urinalysis	12	100.0	(73.5 - 100)	16	100.0	(79.4 - 100)	
Glucometer	12	100.0	(73.5 - 100)	16	87.5	(61.7 - 98.4)	
Cell counter	12	83.3	(51.6 - 97.9)	16	93.8	(69.8 - 99.8)	
Microcuvettes	12	16.7	(2.1 - 48.4)	16	50.0	(24.7 - 75.3)	
Pregnancy test	12	100.0	(73.5 - 100)	16	100.0	(79.4 - 100)	
Blood type antibodies	12	100.0	(73.5 - 100)	16	93.8	(69.8 - 99.8)	
RH factor antibodies	12	100.0	(73.5 - 100)	16	93.8	(69.8 - 99.8)	
All lab inputs observed on the day of the survey	12	16.7	(2.1 - 48.4)	16	37.5	(15.2 - 64.6)	
All lab inputs observed on the day of the survey + no stock out of Rh factor antibodies in the last 3 months	12	16.7	(2.1 - 48.4)	16	37.5	(15.2 - 64.6)	

<sup>&</sup>lt;sup>a</sup> Serological mixer, urine analysis, blood analysis equipment, and microscope not captured at baseline.

<sup>&</sup>lt;sup>b</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D6.11: ANC and PPC laboratory inputs, complete facilities

		Ва	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Rapid HIV test	8	0.0	(0 - 36.9)	3	100.0	(29.2 - 100)
Rapid syphilis test	8	50.0	(15.7 - 84.3)	3	66.7	(9.4 - 99.2)
Urinalysis	8	37.5	(8.5 - 75.5)	3	100.0	(29.2 - 100)
Glucometer	8	37.5	(8.5 - 75.5)	3	100.0	(29.2 - 100)
Cell counter	8	25.0	(3.2 - 65.1)	3	100.0	(29.2 - 100)
Blood type antibodies	8	87.5	(47.3 - 99.7)	3	100.0	(29.2 - 100)
RH factor antibodies	8	87.5	(47.3 - 99.7)	3	100.0	(29.2 - 100)
All lab inputs observed on the day of the survey	8	0.0	(0 - 36.9)	3	66.7	(9.4 - 99.2)
All lab inputs observed on the day of the survey + no stock out of Rh factor antibodies in the last 3 months	8	0.0	(0 - 36.9)	3	66.7	(9.4 - 99.2)

<sup>&</sup>lt;sup>a</sup> Serological mixer, urine analysis, blood analysis equipment, and microscope not captured at baseline.

Table D6.12: ANC and PPC composite indicator, ambulatory facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
All ANC/PPC equipment observed and functional	56	19.6	(10.2 - 32.4)	68	66.2	(53.7 - 77.2)
All drugs available on the day of the survey	56	23.2	(13 - 36.4)	68	67.6	(55.2 - 78.5)
All drugs available on the day of the survey + the last 3 months	56	21.4	(11.6 - 34.4)	68	38.2	(26.7 - 50.8)
ANC/PPC according to standard	56	5.4	(1.1 - 14.9)	68	27.9	(17.7 - 40.1)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D6.13: ANC and PPC composite indicator, basic facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
All ANC/PPC equipment observed and functional	18	5.6	(0.1 - 27.3)	18	83.3	(58.6 - 96.4)
All drugs available on the day of the survey	18	0.0	(0 - 18.5)	18	27.8	(9.7 - 53.5)
All drugs available on the day of the survey + the last 3 months	18	0.0	(0 - 18.5)	18	11.1	(1.4 - 34.7)
All lab inputs observed on the day of the survey	12	16.7	(2.1 - 48.4)	16	37.5	(15.2 - 64.6)
All lab inputs available on the day of the survey + last 3 months	12	16.7	(2.1 - 48.4)	16	37.5	(15.2 - 64.6)
ANC/PPC according to standard	18	0.0	(0 - 18.5)	18	5.6	(0.1 - 27.3)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table D6.14: ANC and PPC composite indicator, complete facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
All ANC/PPC equipment observed and functional	9	11.1	(0.3 - 48.2)	3	66.7	(9.4 - 99.2)
All drugs available on the day of the survey	9	0.0	(0 - 33.6)	3	66.7	(9.4 - 99.2)
All drugs available on the day of the survey + the last 3 months	9	0.0	(0 - 33.6)	3	33.3	(0.8 - 90.6)
All lab inputs observed on the day of the survey	8	0.0	(0 - 36.9)	3	66.7	(9.4 - 99.2)
All lab inputs available on the day of the survey + last 3 months	8	0.0	(0 - 36.9)	3	66.7	(9.4 - 99.2)
ANC/PPC according to standard	9	0.0	(0 - 33.6)	3	33.3	(0.8 - 90.6)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table D6.15: ANC timeliness, medical records from ambulatory facilities

		Bas	seline	S	Second F	ollow-Up
	N	N % CI			%	CI
First ANC visit within 12 weeks	93	21.5	(13.7 - 31.2)	573	32.5	(28.6 - 36.5)

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first and second follow-up, gestational age was reported in the record



Table D6.16: ANC timeliness, medical records from basic facilities

		Base	line		Second Follow-Up			
	N	N % CI		N	%	CI		
First ANC visit within 12 weeks	113	34.5	(25.8 - 44)	96	39.6	(29.7 - 50.1)		

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first and second follow-up, gestational age was reported in the record

Table D6.17: ANC timeliness, medical records from complete facilities

		Baseline			
	N	%	CI		
First ANC visit within 12 weeks	9	33.3	(7.5 - 70.1)		

<sup>&</sup>lt;sup>a</sup> At baseline, gestational age at the first visit was calculated. At first follow-up, gestational age was reported in the record

Figure D6.1: Histogram comparison of first ANC visit, by collection period

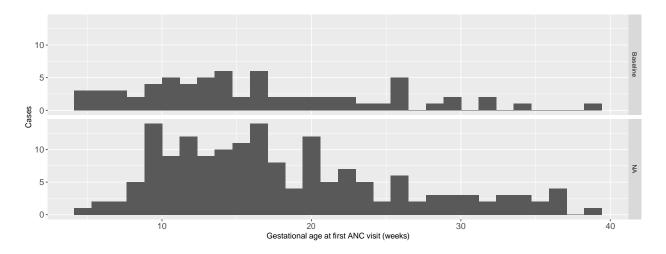




Table D6.18: At least five ANC visits to standard, medical records from ambulatory facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
At least five ANC visits	94	45.7	(35.4 - 56.3)	585	52.6	(48.5 - 56.8)
All appropriate checks performed, at least	94	66.0	(55.5 - 75.4)	585	41.7	(37.7 - 45.8)
five ANC visits						
All lab tests performed at least once	94	18.1	(10.9 - 27.4)	585	19.7	(16.5 - 23.1)
during pregnancy:						
Bloodglucose	94	25.5	(17.1 - 35.6)	585	44.3	(40.2 - 48.4)
HIV test	94	26.6	(18 - 36.7)	585	43.2	(39.2 - 47.4)
Hemoglobin	94	23.4	(15.3 - 33.3)	585	35.4	(31.5 - 39.4)
Urinalysis	94	23.4	(15.3 - 33.3)	585	37.6	(33.7 - 41.7)
Antenatal care performed according to standard	94	5.3	(1.7 - 12)	585	11.6	(9.1 - 14.5)

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

Table D6.19: At least four ANC visits to standard, medical records from ambulatory facilities

		Ba	seline	S	Second Follow-Up		
	N	%	CI	N	%	CI	
At least four ANC visits	100	66	(55.8 - 75.2)	585	70.6	(66.7 - 74.3)	
All appropriate checks performed, at least four ANC visits	100	43	(33.1 - 53.3)	585	24.1	(20.7 - 27.8)	
All lab tests performed at least once	100	13	(7.1 - 21.2)	585	0.7	(0.2 - 1.7)	
during pregnancy:							
Blood group	100	25	(16.9 - 34.7)	585	31.8	(28 - 35.7)	
Rh factor	100	25	(16.9 - 34.7)	585	31.6	(27.9 - 35.6)	
Blood glucose	100	24	(16 - 33.6)	585	44.3	(40.2 - 48.4)	
HIV test	100	25	(16.9 - 34.7)	585	43.2	(39.2 - 47.4)	
Platelet count	100	21	(13.5 - 30.3)	585	31.3	(27.5 - 35.2)	
Uric acid in blood	100	22	(14.3 - 31.4)	585	7.7	(5.7 - 10.2)	
Uric acid in urine	100	19	(11.8 - 28.1)	585	4.6	(3.1 - 6.6)	
Syphilis test (VDRL / RPR*)	100	21	(13.5 - 30.3)	585	33.2	(29.4 - 37.1)	
Hemoglobin	100	22	(14.3 - 31.4)	585	35.4	(31.5 - 39.4)	
Urinalysis	100	25	(16.9 - 34.7)	585	37.6	(33.7 - 41.7)	
Antenatal care performed according to standard	100	5	(1.6 - 11.3)	585	0.0	(0 - 0.6)	

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks and fundal height were captured only if gestational age at the first visit was eligible

<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks were captured only if gestational age at the first visit was eligible



Table D6.20: At least four ANC visits to standard, medical records from basic facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
At least four ANC visits	124	76.6	(68.2 - 83.7)	101	78.2	(68.9 - 85.8)	
All appropriate checks performed, at least	124	57.3	(48.1 - 66.1)	101	38.6	(29.1 - 48.8)	
four ANC visits							
All lab tests performed at least once	124	44.4	(35.4 - 53.5)	101	41.6	(31.9 - 51.8)	
during pregnancy:							
Blood group	124	58.1	(48.9 - 66.9)	101	63.4	(53.2 - 72.7)	
Rh factor	124	58.9	(49.7 - 67.6)	101	63.4	(53.2 - 72.7)	
Blood glucose	124	62.9	(53.8 - 71.4)	101	69.3	(59.3 - 78.1)	
Syphilis test (VDRL / RPR*)	124	53.2	(44.1 - 62.2)	101	73.3	(63.5 - 81.6)	
Hemoglobin	124	52.4	(43.3 - 61.5)	101	70.3	(60.4 - 79)	
Urinalysis	124	56.5	(47.3 - 65.3)	101	67.3	(57.3 - 76.3)	
Antenatal care performed according to standard	124	22.6	(15.6 - 31)	101	14.9	(8.6 - 23.3)	

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

Table D6.21: At least four ANC visits to standard, medical records from complete facilities

		Ва	seline
	N	%	CI
At least four ANC visits	9	66.7	(29.9 - 92.5)
All appropriate checks performed, at least	9	22.2	(2.8 - 60)
four ANC visits			
All lab tests performed at least once	9	0.0	(0 - 33.6)
during pregnancy:			
Blood group	9	22.2	(2.8 - 60)
Rh factor	9	22.2	(2.8 - 60)
Blood glucose	9	11.1	(0.3 - 48.2)
Syphilis test (VDRL / RPR*)	9	0.0	(0 - 33.6)
Hemoglobin	9	11.1	(0.3 - 48.2)
Urinalysis	9	0.0	(0 - 33.6)
Antenatal care performed according to	9	0.0	(0 - 33.6)
standard			

<sup>&</sup>lt;sup>a</sup> RPR not captured as alternative to VDLR at baseline or first follow-up.

<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks were captured only if gestational age at the first visit was eligible

<sup>&</sup>lt;sup>b</sup> At baseline, fetal checks were captured only if gestational age at the first visit was eligible



Table D6.22: DEL equipment observed and functional, basic facilities

		Bas	seline	Second Follow-Up		
	N	%	CI	N	%	CI
Serum equipment (macrogotero & microgoter)	18	83.3	(58.6 - 96.4)	19	84.2	(60.4 - 96.6)
Sterile blankets for the newborn	18	83.3	(58.6 - 96.4)	19	94.7	(74 - 99.9)
Neonatal nasogastric tube	18	33.3	(13.3 - 59)	19	63.2	(38.4 - 83.7)
Sterile IV catheter No. 18	18	88.9	(65.3 - 98.6)	19	94.7	(74 - 99.9)
Metal clamp/umbilical tape	18	94.4	(72.7 - 99.9)	19	89.5	(66.9 - 98.7)
All DEL equipment observed and functional	18	33.3	(13.3 - 59)	19	57.9	(33.5 - 79.7)

<sup>&</sup>lt;sup>a</sup> Neonatal nasogastric tube K33 measured at baseline

Table D6.23: DEL equipment observed and functional, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Serum equipment (macrogotero & microgoter)	9	100.0	(66.4 - 100)	3	100.0	(29.2 - 100)
Sterile blankets for the newborn	9	100.0	(66.4 - 100)	3	100.0	(29.2 - 100)
Neonatal nasogastric tube	9	44.4	(13.7 - 78.8)	3	100.0	(29.2 - 100)
Sterile IV catheter No. 18	9	77.8	(40 - 97.2)	3	66.7	(9.4 - 99.2)
Metal clamp/umbilical tape	9	100.0	(66.4 - 100)	3	100.0	(29.2 - 100)
All DEL equipment observed and functional	9	22.2	(2.8 - 60)	3	66.7	(9.4 - 99.2)

<sup>&</sup>lt;sup>a</sup> Neonatal nasogastric tube K33 measured at baseline

Table D6.24: DEL drugs, basic facilities

		Bas	seline		Second F	ollow-Up
	N	%	CI	N	%	CI
Ergonovine/ergometrine/oxytocin	18	50.0	(26 - 74)	19	78.9	(54.4 - 93.9)
Povidone-iodine	18	11.1	(1.4 - 34.7)	19	100.0	(82.4 - 100)
Insulin syringe	18	38.9	(17.3 - 64.3)	19	89.5	(66.9 - 98.7)
Lidocaine without epinephrine (simple lidocaine)	18	44.4	(21.5 - 69.2)	19	78.9	(54.4 - 93.9)
Hyoscine butylbromide/Butylscopolamine	18	44.4	(21.5 - 69.2)	19	84.2	(60.4 - 96.6)
Ringer's lactate/Hartmann's/Saline solution	18	33.3	(13.3 - 59)	19	94.7	(74 - 99.9)
Ophthalmic chloramphenicol drops/1% silver nitrate/oxytetracycline opthalmic	18	50.0	(26 - 74)	19	73.7	(48.8 - 90.9)
Vitamin K/Phytonadione	18	38.9	(17.3 - 64.3)	19	63.2	(38.4 - 83.7)
All drugs available on the day of the survey	18	5.6	(0.1 - 27.3)	19	47.4	(24.4 - 71.1)
All drugs available on the day of the survey + last three months	18	5.6	(0.1 - 27.3)	19	26.3	(9.1 - 51.2)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D6.25: DEL drugs, complete facilities

		Ва	seline		Second Follow-Up			
	N	%	CI	N	%	CI		
Ergonovine/ergometrine/oxytocin	9	55.6	(21.2 - 86.3)	3	66.7	(9.4 - 99.2)		
Povidone-iodine	9	22.2	(2.8 - 60)	3	100.0	(29.2 - 100)		
Insulin syringe	9	33.3	(7.5 - 70.1)	3	100.0	(29.2 - 100)		
Lidocaine without epinephrine (simple lidocaine)	9	66.7	(29.9 - 92.5)	3	66.7	(9.4 - 99.2)		
Hyoscine butylbromide/Butylscopolamine	9	44.4	(13.7 - 78.8)	3	100.0	(29.2 - 100)		
Ringer's lactate/Hartmann's/Saline solution	9	44.4	(13.7 - 78.8)	3	100.0	(29.2 - 100)		
Ophthalmic chloramphenicol drops/1% silver nitrate/oxytetracycline opthalmic	9	55.6	(21.2 - 86.3)	3	66.7	(9.4 - 99.2)		
Vitamin K/Phytonadione	9	66.7	(29.9 - 92.5)	3	66.7	(9.4 - 99.2)		
All drugs available on the day of the survey	9	11.1	(0.3 - 48.2)	3	66.7	(9.4 - 99.2)		
All drugs available on the day of the survey + last three months	9	11.1	(0.3 - 48.2)	3	0.0	(0 - 70.8)		

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table D6.26: DEL composite indicator, basic facilities

		Bas	eline		Second Follow-Up		
	N	%	CI	N	%	CI	
All DEL equipment observed and functional	18	33.3	(13.3 - 59)	19	57.9	(33.5 - 79.7)	
All drugs available on the day of the survey	18	5.6	(0.1 - 27.3)	19	47.4	(24.4 - 71.1)	
All drugs available on the day of the survey + the last 3 months	18	5.6	(0.1 - 27.3)	19	26.3	(9.1 - 51.2)	
DEL according to standard	18	5.6	(0.1 - 27.3)	19	21.1	(6.1 - 45.6)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table D6.27: DEL composite indicator, complete facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
All DEL equipment observed and functional	9	22.2	(2.8 - 60)	3	66.7	(9.4 - 99.2)
All drugs available on the day of the survey	9	11.1	(0.3 - 48.2)	3	66.7	(9.4 - 99.2)
All drugs available on the day of the survey + the last 3 months	9	11.1	(0.3 - 48.2)	3	0.0	(0 - 70.8)
DEL according to standard	9	0.0	(0 - 33.6)	3	0.0	(0 - 70.8)

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D6.30: Sociocultural adaption, complete facilities

		Baseline				Second Follow-Up		
	N	%	CI	N	%	CI		
Facility adapts services to the sociocultural conditions of women at delivery	11	45.5	(16.7 - 76.6)	3	66.7	(9.4 - 99.2)		

Table D6.31: Cesarean section prevalence monitoring indicator, complete facilities

Evaluation	Total # of C-sections	Total # of deliveries	C-section prevalence in past two years
Baseline	3586	8572	41.8%
Second Follow-up	3560	8699	40.9%

<sup>&</sup>lt;sup>a</sup> Data collected where available from five facilities for the baseline time period and seven facilities for the second follow-up time period.

Table D6.32: Active management of third stage of labor, medical records from basic facilities

		Base	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Oxytocin administered	155	66.5	(58.4 - 73.8)	255	94.9	(91.4 - 97.3)
Otheruterotonicadministered	155	1.3	(0.2 - 4.6)	255	1.2	(0.2 - 3.4)
Active management of third stage of labor according to standard	155	66.5	(58.4 - 73.8)	255	95.3	(91.9 - 97.5)

Table D6.33: Active management of third stage of labor, medical records from complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Oxytocin administered Other uterotonic administered	188 188	69.1 1.1	(62 - 75.7) (0.1 - 3.8)	72 72	98.6 0.0	(92.5 - 100) (0 - 5)	
Active management of third stage of labor according to standard	188	69.7	(62.6 - 76.2)	72	98.6	(92.5 - 100)	



Table D6.34: Immediate neonate postpartum care, medical records from basic facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Checked four times in the first hour & twice	e in the	second	hour:				
Blood pressure	141	0.0	(0 - 2.6)	241	37.3	(31.2 - 43.8)	
Temperature	141	0.0	(0 - 2.6)	241	35.7	(29.6 - 42.1)	
Heart rate / pulse	141	0.0	(0 - 2.6)	241	36.1	(30 - 42.5)	
Respiratory rate	141	0.7	(0 - 3.9)	241	36.1	(30 - 42.5)	
All checks at discharge	141	48.2	(39.7 - 56.8)	241	94.6	(91 - 97.1)	
Immediate maternal PPC to standard	141	0.0	(0 - 2.6)	241	35.3	(29.2 - 41.7)	

<sup>&</sup>lt;sup>a</sup> Heart rate not captured as an alternative at baseline and first follow-up

Table D6.35: Immediate neonate postpartum care, medical records from complete facilities

		Bas	eline	Second Follow-Up						
	N	%	CI	N	%	CI				
Checked four times in the first hour & twice in the second hour:										
Blood pressure	209	0.0	(0 - 1.7)	68	38.2	(26.7 - 50.8)				
Temperature	209	0.5	(0 - 2.6)	68	38.2	(26.7 - 50.8)				
Heart rate / pulse	209	0.5	(0 - 2.6)	68	38.2	(26.7 - 50.8)				
Respiratory rate	209	0.0	(0 - 1.7)	68	38.2	(26.7 - 50.8)				
All checks at discharge	209	56.5	(49.4 - 63.3)	68	97.1	(89.8 - 99.6)				
Immediate maternal PPC to standard	209	0.0	(0 - 1.7)	68	36.8	(25.4 - 49.3)				

<sup>&</sup>lt;sup>a</sup> Heart rate not captured as an alternative at baseline and first follow-up

Table D6.36: Immediate neonate postpartum care, medical records from basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vitamin K	92	69.6	(59.1 - 78.7)	224	96.0	(92.5 - 98.1)	
Application of prophylaxis with oxytetracycline	92	73.9	(63.7 - 82.5)	224	97.3	(94.3 - 99)	
ophthalmic/chloramphenicol Curing the umbilical cord with water and	92	52.2	(41.5 - 62.7)	224	54.0	(47.3 - 60.7)	
chlorhexidine	32	32.2	(41.5 - 02.7)	224	34.0	(47.5 - 00.7)	
Evaluation for the presence of	92	62.0	(51.2 - 71.9)	224	94.6	(90.8 - 97.2)	
malformations							
Skin evaluation	92	70.7	(60.2 - 79.7)	224	96.4	(93.1 - 98.4)	
BCG vaccine	92	42.4	(32.1 - 53.1)	224	47.3	(40.6 - 54.1)	
APGAR score (1 or 5 minutes)	92	71.7	(61.4 - 80.6)	224	94.6	(90.8 - 97.2)	
Pulse/heart rate	92	68.5	(58 - 77.8)	224	97.8	(94.9 - 99.3)	
Respiratory rate	92	65.2	(54.6 - 74.9)	224	97.3	(94.3 - 99)	
Weight	92	76.1	(66.1 - 84.4)	224	99.1	(96.8 - 99.9)	
Height	92	73.9	(63.7 - 82.5)	224	98.2	(95.5 - 99.5)	
Head circumference	92	57.6	(46.9 - 67.9)	224	96.0	(92.5 - 98.1)	
Immediate neonate PPC to standard	92	25.0	(16.6 - 35.1)	224	35.3	(29 - 41.9)	



Table D6.37: Immediate neonate postpartum care, medical records from complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vitamin K	135	71.9	(63.5 - 79.2)	67	100.0	(94.6 - 100)	
Application of prophylaxis with oxytetracycline ophthalmic/chloramphenicol	135	69.6	(61.1 - 77.2)	67	100.0	(94.6 - 100)	
Curing the umbilical cord with water and chlorhexidine	135	33.3	(25.5 - 42)	67	40.3	(28.5 - 53)	
Evaluation for the presence of malformations	135	48.1	(39.5 - 56.9)	67	97.0	(89.6 - 99.6)	
Skin evaluation	135	64.4	(55.8 - 72.5)	67	100.0	(94.6 - 100)	
BCG vaccine	135	23.0	(16.2 - 31)	67	64.2	(51.5 - 75.5)	
APGAR score (1 or 5 minutes)	135	77.0	(69 - 83.8)	67	98.5	(92 - 100)	
Pulse/heart rate	135	74.1	(65.8 - 81.2)	67	97.0	(89.6 - 99.6)	
Respiratory rate	135	72.6	(64.3 - 79.9)	67	95.5	(87.5 - 99.1)	
Weight	135	80.0	(72.3 - 86.4)	67	100.0	(94.6 - 100)	
Height	135	79.3	(71.4 - 85.8)	67	100.0	(94.6 - 100)	
Head circumference	135	71.9	(63.5 - 79.2)	67	95.5	(87.5 - 99.1)	
Immediate neonate PPC to standard	135	11.1	(6.4 - 17.7)	67	34.3	(23.2 - 46.9)	



Table D7.1: Emergency care provision, second follow-up evaluation, basic facilities

		Bas	seline	Second Follow-Up				
	N	%	CI	N	%	CI		
Visual and auditory privacy	12	83.3	(51.6 - 97.9)	19	100	(82.4 - 100)		
Visual privacy only	12	8.3	(0.2 - 38.5)	19	0	(0 - 17.6)		
Non-private area	12	0.0	(0 - 26.5)	19	0	(0 - 17.6)		
Other	12	0.0	(0 - 26.5)	19	0	(0 - 17.6)		
Do not provide service	12	0.0	(0 - 26.5)	19	0	(0 - 17.6)		

<sup>&</sup>lt;sup>a</sup> Missing emergency room data from six facilities at the baseline

Table D7.2: Emergency care provision, second follow-up evaluation, complete facilities

		В	aseline	Second Follow-Up				
	N	%	CI	N	%	CI		
Visual and auditory privacy	5	80	(28.4 - 99.5)	3	100	(29.2 - 100)		
Visual privacy only	5	0	(0 - 52.2)	3	0	(0 - 70.8)		
Non-private area	5	20	(0.5 - 71.6)	3	0	(0 - 70.8)		
Other	5	0	(0 - 52.2)	3	0	(0 - 70.8)		
Do not provide service	5	0	(0 - 52.2)	3	0	(0 - 70.8)		

<sup>&</sup>lt;sup>a</sup> Missing emergency room data from seven facilities at the baseline

Table D7.3: EMG equipment observed and functional, basic facilities

	Baseline				Second Follow-Up			
	N	%	CI	N	%	CI		
Blood pressure apparatus	11	36.4	(10.9 - 69.2)	19	89.5	(66.9 - 98.7)		
Stethoscope	11	45.5	(16.7 - 76.6)	19	84.2	(60.4 - 96.6)		
Portable doppler/Pinard stethoscope	9	66.7	(29.9 - 92.5)	18	94.4	(72.7 - 99.9)		
Autoclave/heat sterilizer	11	90.9	(58.7 - 99.8)	19	94.7	(74 - 99.9)		
Oxygen tank/oxygen intake	11	36.4	(10.9 - 69.2)	19	84.2	(60.4 - 96.6)		
Resusitation bag for adults	11	54.5	(23.4 - 83.3)	19	84.2	(60.4 - 96.6)		
Resusitation bag for neonates	11	45.5	(16.7 - 76.6)	19	78.9	(54.4 - 93.9)		
Laryngoscope	11	36.4	(10.9 - 69.2)	19	84.2	(60.4 - 96.6)		
Equipment for AMEU/curettage kit	11	9.1	(0.2 - 41.3)	19	73.7	(48.8 - 90.9)		
All EMG equipment observed and functional	11	0.0	(0 - 28.5)	19	36.8	(16.3 - 61.6)		

<sup>&</sup>lt;sup>a</sup> Two facilities at the baseline did not have a functional portable doppler and were not asked about pinard stethoscope. These facilities were excluded from the portable doppler/pinard component of the indicator

<sup>&</sup>lt;sup>b</sup> One facility at the second follow-up did not have a functional portable doppler and was not asked about pinard stethoscope. This facility was excluded from the portable doppler/pinard component of the indicator



Table D7.4: EMG equipment observed and functional, complete facilities

		Ва	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Blood pressure apparatus	5	40	(5.3 - 85.3)	3	100.0	(29.2 - 100)	
Portable doppler/Pinard stethoscope	5	100	(47.8 - 100)	3	100.0	(29.2 - 100)	
Autoclave/heat sterilizer	5	100	(47.8 - 100)	3	100.0	(29.2 - 100)	
Oxygen tank/oxygen intake	5	100	(47.8 - 100)	3	100.0	(29.2 - 100)	
Resusitation bag for adults	5	60	(14.7 - 94.7)	3	66.7	(9.4 - 99.2)	
Resusitation bag for neonates	5	100	(47.8 - 100)	3	100.0	(29.2 - 100)	
Laryngoscope	5	100	(47.8 - 100)	3	100.0	(29.2 - 100)	
Equipment for AMEU/curettage kit	5	80	(28.4 - 99.5)	3	100.0	(29.2 - 100)	
Neonatal/pediatric stethoscope	5	80	(28.4 - 99.5)	3	66.7	(9.4 - 99.2)	
Equipment for an est he sia	5	80	(28.4 - 99.5)	3	66.7	(9.4 - 99.2)	
Kit for caesarean sections	5	80	(28.4 - 99.5)	3	100.0	(29.2 - 100)	
All EMG equipment observed and functional	5	0	(0 - 52.2)	3	66.7	(9.4 - 99.2)	

<sup>&</sup>lt;sup>a</sup> One facility at the first follow-up did not have a functional pediatric stethoscope and was not asked about a neonatal stethoscope. This facility was excluded from the pediatric/neonatal stethoscope component of the indicator

Table D7.5: EMG drugs, basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Ergonovine/ergometrine/oxytocin	11	63.6	(30.8 - 89.1)	19	78.9	(54.4 - 93.9)	
Dexamethasone/betamethasone	11	9.1	(0.2 - 41.3)	19	73.7	(48.8 - 90.9)	
Penicillin crystalline/ampicillin/amoxicillin	11	72.7	(39 - 94)	19	100.0	(82.4 - 100)	
Gentamicin	11	0.0	(0 - 28.5)	19	57.9	(33.5 - 79.7)	
Magnesium sulfate	11	18.2	(2.3 - 51.8)	19	84.2	(60.4 - 96.6)	
Hydralazine	11	27.3	(6 - 61)	19	84.2	(60.4 - 96.6)	
All drugs available on the day of the survey	11	0.0	(0 - 28.5)	19	47.4	(24.4 - 71.1)	
All drugs available on the day of the survey + last three months	11	0.0	(0 - 28.5)	19	15.8	(3.4 - 39.6)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D7.6: EMG drugs, complete facilities

		В	aseline	Second Follow-Up			
	N	%	CI	N	%	CI	
Ergonovine/ergometrine/oxytocin	5	60	(14.7 - 94.7)	3	66.7	(9.4 - 99.2)	
Dexamethasone/betamethasone	5	60	(14.7 - 94.7)	3	100.0	(29.2 - 100)	
Penicillin crystalline/ampicillin/amoxicillin	5	60	(14.7 - 94.7)	3	100.0	(29.2 - 100)	
Magnesium sulfate	5	80	(28.4 - 99.5)	3	66.7	(9.4 - 99.2)	
Hydralazine	5	40	(5.3 - 85.3)	3	66.7	(9.4 - 99.2)	
Amikacin sulfate	5	40	(5.3 - 85.3)	3	100.0	(29.2 - 100)	
Ceftriaxone	5	40	(5.3 - 85.3)	3	100.0	(29.2 - 100)	
Chloramphenicol/metronidazole	5	20	(0.5 - 71.6)	3	100.0	(29.2 - 100)	
Nifedipine	5	60	(14.7 - 94.7)	3	100.0	(29.2 - 100)	
Furosemide	5	60	(14.7 - 94.7)	3	100.0	(29.2 - 100)	
Diazepam/Midazolam	5	40	(5.3 - 85.3)	3	100.0	(29.2 - 100)	
Sevoflurane/propofol	5	0	(0 - 52.2)	3	100.0	(29.2 - 100)	
Succinylcholine chloride	5	20	(0.5 - 71.6)	3	100.0	(29.2 - 100)	
(suxamethonium)/vecuronium							
All drugs available on the day of the survey	5	0	(0 - 52.2)	3	66.7	(9.4 - 99.2)	
All drugs available on the day of the survey + last three months	5	0	(0 - 52.2)	3	0.0	(0 - 70.8)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table D7.7: EMG composite indicator, basic facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
All EMG equipment observed and functional	11	0	(0 - 28.5)	19	36.8	(16.3 - 61.6)	
All drugs available on the day of the survey	11	0	(0 - 28.5)	19	47.4	(24.4 - 71.1)	
All drugs available on the day of the survey + the last 3 months	11	0	(0 - 28.5)	19	15.8	(3.4 - 39.6)	
EMG according to standard	11	0	(0 - 28.5)	19	10.5	(1.3 - 33.1)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up



Table D7.8: EMG composite indicator, complete facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
All EMG equipment observed and functional	5	0	(0 - 52.2)	3	66.7	(9.4 - 99.2)	
All drugs available on the day of the survey	5	0	(0 - 52.2)	3	66.7	(9.4 - 99.2)	
All drugs available on the day of the survey + the last 3 months	5	0	(0 - 52.2)	3	0.0	(0 - 70.8)	
EMG according to standard	5	0	(0 - 52.2)	3	0.0	(0 - 70.8)	

<sup>&</sup>lt;sup>a</sup> Three month stock data not available for all drugs at baseline and first follow-up

Table D7.9: Uterine tamponade balloon for hemorrhage management, second follow-up evaluation

	Basic Facilities			Complete Facilities		
	N	%	CI	N	%	CI
Facility uses tamponade to managed obstetric hemorrhage	7	28.6	(3.7 - 71)	1	100	(2.5 - 100)
Туре						
Bakri	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Foley catheter	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Condom-based balloon	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Do not know	2	50.0	(1.3 - 98.7)	1	100	(2.5 - 100)
Assembly kit						
Facility has tamponade kit	2	0.0	(0 - 84.2)	1	0	(0 - 97.5)
Kit commercially assembled	-	-	-	-	-	-
Kit prepared from available materials	-	-	-	-	-	-
Staff training						
Staff trained in tamponade use	7	57.1	(18.4 - 90.1)	1	100	(2.5 - 100)
Staff trained in tamponade assembly	7	42.9	(9.9 - 81.6)	1	100	(2.5 - 100)

<sup>&</sup>lt;sup>a</sup> Uterine balloon data not captured at baseline and first follow-up evaluations.

Table D7.10: Distribution of obstetric complications, basic facilities

	Baseline	Second Follow-up
Sepsis	1	5
Hemorrhage	9	77
Pre-eclampsia	18	144
Eclampsia	1	7



Table D7.11: Distribution of obstetric complications, complete facilities

	Baseline	Second Follow-up
Sepsis	6	3
Hemorrhage	65	49
Pre-eclampsia	46	80
Eclampsia	4	10

Table D7.12: Distribution of neonatal complications, basic facilities

	Baseline	Second Follow-up
Sepsis	25	46
Low birth weight	13	62
Asphyxia	19	30
Prematurity	3	28

Table D7.13: Distribution of neonatal complications, complete facilities

	Baseline	Second Follow-up
Sepsis	69	61
Low birth weight	20	44
Asphyxia	40	35
Prematurity	33	33

Table D7.14: Maternal sepsis management, basic facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Vital signs checked	1	100	(2.5 - 100)	5	100	(47.8 - 100)	
Pulse / heart rate	1	100	(2.5 - 100)	5	100	(47.8 - 100)	
Blood pressure	1	100	(2.5 - 100)	5	100	(47.8 - 100)	
Temperature	1	100	(2.5 - 100)	5	100	(47.8 - 100)	
Antibiotics administered	1	100	(2.5 - 100)	5	40	(5.3 - 85.3)	
Causes treated appropriately	-	-	-	5	100	(47.8 - 100)	
Abortion	-	-	-	1	100	(2.5 - 100)	
Uterineperforation	-	-	-	-	-	-	
Abscess	-	-	-	-	-	-	
Endometritis	-	-	-	-	-	-	
Fever	-	-	-	4	100	(39.8 - 100)	
Retained placenta	-	-	-	3	100	(29.2 - 100)	
Obstetric sepsis managed according to SMI standard	1	100	(2.5 - 100)	5	40	(5.3 - 85.3)	



Table D7.15: Maternal sepsis management, complete facilities

		Bas	eline	:	Second Follow-Up		
	N	%	CI	N	%	CI	
Vital signs checked	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Pulse / heart rate	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Blood pressure	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Temperature	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Lab tests	6	83.3	(35.9 - 99.6)	2	100	(15.8 - 100)	
Blood biometry	6	83.3	(35.9 - 99.6)	2	100	(15.8 - 100)	
Blood type	6	83.3	(35.9 - 99.6)	2	100	(15.8 - 100)	
Rh factor	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Antibiotics administered	6	100.0	(54.1 - 100)	2	100	(15.8 - 100)	
Causes treated appropriately	5	80.0	(28.4 - 99.5)	2	50	(1.3 - 98.7)	
Abortion	1	0.0	(0 - 97.5)	-	-	-	
Uterineperforation	-	-	-	-	-	-	
Abscess	-	-	-	-	-	-	
Endometritis	-	-	-	-	-	-	
Fever	1	100.0	(2.5 - 100)	1	100	(2.5 - 100)	
Retained placenta	5	100.0	(47.8 - 100)	1	0	(0 - 97.5)	
Obstetric sepsis managed according to	6	66.7	(22.3 - 95.7)	2	50	(1.3 - 98.7)	
SMIstandard							

Table D7.11 and Table D7.12 display hemorrhage management as indicated in obstetric medical records.

Table D7.16: Maternal hemorrhage management, basic facilities

		Bas	eline	Second Follow-Up		
	N	%	CI	N	%	CI
Vital signs checked	9	66.7	(29.9 - 92.5)	68	86.8	(76.4 - 93.8)
Pulse / heart rate	9	66.7	(29.9 - 92.5)	68	89.7	(79.9 - 95.8)
Blood pressure	9	100.0	(66.4 - 100)	68	88.2	(78.1 - 94.8)
Ringer's lactate / Hartmann's solution administered	9	55.6	(21.2 - 86.3)	68	55.9	(43.3 - 67.9)
Causes treated appropriately	5	40.0	(5.3 - 85.3)	53	66.0	(51.7 - 78.5)
Hemorrhage managed according to SMI standard	9	22.2	(2.8 - 60)	68	41.2	(29.4 - 53.8)



Table D7.17: Maternal hemorrhage management, complete facilities

	Baseline				Second Follow-Up		
	N	%	CI	N	%	CI	
Vital signs checked	65	98.5	(91.7 - 100)	42	100.0	(91.6 - 100)	
Pulse / heart rate	65	98.5	(91.7 - 100)	42	100.0	(91.6 - 100)	
Blood pressure	65	100.0	(94.5 - 100)	42	100.0	(91.6 - 100)	
Lab tests	65	70.8	(58.2 - 81.4)	42	73.8	(58 - 86.1)	
Hematocrit	65	86.2	(75.3 - 93.5)	42	95.2	(83.8 - 99.4)	
Hemoglobin	65	87.7	(77.2 - 94.5)	42	92.9	(80.5 - 98.5)	
Platelet count	65	90.8	(81 - 96.5)	42	97.6	(87.4 - 99.9)	
Prothrombin	65	76.9	(64.8 - 86.5)	42	81.0	(65.9 - 91.4)	
Partial thromboplastin	65	76.9	(64.8 - 86.5)	42	83.3	(68.6 - 93)	
Blood type	65	86.2	(75.3 - 93.5)	42	85.7	(71.5 - 94.6)	
Rh factor	65	86.2	(75.3 - 93.5)	42	85.7	(71.5 - 94.6)	
Causes treated appropriately	60	36.7	(24.6 - 50.1)	37	64.9	(47.5 - 79.8)	
Hemorrhage managed according to SMI standard	65	23.1	(13.5 - 35.2)	42	50.0	(34.2 - 65.8)	

Table D7.18: Maternal hemorrhage management, basic facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
Causes treated appropriately	5	40	(5.3 - 85.3)	53	66.0	(51.7 - 78.5)
Abortion	4	75	(19.4 - 99.4)	26	88.5	(69.8 - 97.6)
Ectopic/broken ectopic pregnancy	-	-	-	-	-	-
Placenta previa	-	-	-	2	100.0	(15.8 - 100)
Uterine rupture	-	-	-	1	0.0	(0 - 97.5)
Uterine atony	-	-	-	7	71.4	(29 - 96.3)
Uterineinversion	-	-	-	-	-	-
Retained placenta	-	-	-	6	100.0	(54.1 - 100)
Retention of placental remains	2	0	(0 - 84.2)	21	38.1	(18.1 - 61.6)

Table D7.19: Maternal hemorrhage management, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Causes treated appropriately	60	36.7	(24.6 - 50.1)	37	64.9	(47.5 - 79.8)	
Abortion	15	93.3	(68.1 - 99.8)	1	100.0	(2.5 - 100)	
Ectopic/broken ectopic pregnancy	-	-	-	4	100.0	(39.8 - 100)	
Placenta previa	10	70.0	(34.8 - 93.3)	8	75.0	(34.9 - 96.8)	
Uterine rupture	2	100.0	(15.8 - 100)	-	-	-	
Uterine atony	7	57.1	(18.4 - 90.1)	4	50.0	(6.8 - 93.2)	
Uterineinversion	-	-	-	-	-	-	
Retained placenta	20	15.0	(3.2 - 37.9)	3	66.7	(9.4 - 99.2)	
Retention of placental remains	27	33.3	(16.5 - 54)	19	52.6	(28.9 - 75.6)	



Table D7.20: Maternal pre-eclampsia management, basic facilities

		Bas	eline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	18	94.4	(72.7 - 99.9)	129	100.0	(97.2 - 100)	
Blood pressure	18	94.4	(72.7 - 99.9)	129	100.0	(97.2 - 100)	
Lab tests	18	38.9	(17.3 - 64.3)	129	19.4	(13 - 27.3)	
Urine protein	18	38.9	(17.3 - 64.3)	129	19.4	(13 - 27.3)	
All appropriate medications administered	18	44.4	(21.5 - 69.2)	129	16.3	(10.4 - 23.8)	
Magnesium sulfate	18	44.4	(21.5 - 69.2)	129	18.6	(12.3 - 26.4)	
Hydralazine / nifedipine (if systolic bpp	7	100.0	(59 - 100)	31	71.0	(52 - 85.8)	
>=160 or diastolic blood pressure >=110)							
Referred to complete facility	18	38.9	(17.3 - 64.3)	129	80.6	(72.7 - 87)	
Pre-eclampsia managed according to SMI standard	18	5.6	(0.1 - 27.3)	129	4.7	(1.7 - 9.8)	

Table D7.21: Maternal pre-eclampsia management, complete facilities

		Baseline			Second Follow-Up		
	N	%	CI	N	%	CI	
Vital signs checked	46	63.0	(47.5 - 76.8)	69	52.2	(39.8 - 64.4)	
Pulse / heart rate	46	100.0	(92.3 - 100)	69	100.0	(94.8 - 100)	
Blood pressure	46	100.0	(92.3 - 100)	69	100.0	(94.8 - 100)	
Respiratory rate	46	100.0	(92.3 - 100)	69	100.0	(94.8 - 100)	
Patellar reflex	46	63.0	(47.5 - 76.8)	69	52.2	(39.8 - 64.4)	
Lab tests	46	30.4	(17.7 - 45.8)	69	42.0	(30.2 - 54.5)	
Urine protein	46	63.0	(47.5 - 76.8)	69	65.2	(52.8 - 76.3)	
Platelet count	46	89.1	(76.4 - 96.4)	69	79.7	(68.3 - 88.4)	
Aspartate aminotransferase/Glutamic	46	50.0	(34.9 - 65.1)	69	59.4	(46.9 - 71.1)	
Transaminease oxalacetic (GOT)							
Alanine transaminase /	46	50.0	(34.9 - 65.1)	69	59.4	(46.9 - 71.1)	
glutamic-pyruvic transaminase							
Lactate dehydrogenase	46	56.5	(41.1 - 71.1)	69	52.2	(39.8 - 64.4)	
All appropriate medications administered	46	39.1	(25.1 - 54.6)	69	40.6	(28.9 - 53.1)	
Magnesium sulfate	46	41.3	(27 - 56.8)	69	49.3	(37 - 61.6)	
Hydralazine / nifedipine (if systolic bpp	15	93.3	(68.1 - 99.8)	33	87.9	(71.8 - 96.6)	
>=160 or diastolic blood pressure >=110)							
Dexamethasone/betamethasone (if	7	57.1	(18.4 - 90.1)	10	20.0	(2.5 - 55.6)	
gestational age >=24 or <=35 weeks)							
Pre-eclampsia managed according to SMI standard	46	15.2	(6.3 - 28.9)	69	17.4	(9.3 - 28.4)	



Table D7.22: Maternal eclampsia management, basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	1	100	(2.5 - 100)	7	100.0	(59 - 100)	
Blood pressure	1	100	(2.5 - 100)	7	100.0	(59 - 100)	
Lab tests	1	0	(0 - 97.5)	7	28.6	(3.7 - 71)	
Urine protein	1	0	(0 - 97.5)	7	28.6	(3.7 - 71)	
All appropriate medications administered	1	0	(0 - 97.5)	7	57.1	(18.4 - 90.1)	
Magnesium sulfate	1	0	(0 - 97.5)	7	57.1	(18.4 - 90.1)	
Hydralazine / nifedipine (if systolic bp >=160 or diastolic bp >=110)	1	100	(2.5 - 100)	1	100.0	(2.5 - 100)	
Referred to complete facility	1	100	(2.5 - 100)	7	85.7	(42.1 - 99.6)	
Eclampsia managed according to SMI standard	1	0	(0 - 97.5)	7	14.3	(0.4 - 57.9)	

Table D7.23: Maternal eclampsia management, complete facilities

		Ва	seline		Second Follow-Up		
	N	%	CI	N	%	CI	
Vital signs checked	4	75	(19.4 - 99.4)	9	66.7	(29.9 - 92.5)	
Pulse / heart rate	4	100	(39.8 - 100)	9	100.0	(66.4 - 100)	
Blood pressure	4	100	(39.8 - 100)	9	100.0	(66.4 - 100)	
Respiratory rate	4	100	(39.8 - 100)	9	100.0	(66.4 - 100)	
Patellar reflex	4	75	(19.4 - 99.4)	9	66.7	(29.9 - 92.5)	
Lab tests	4	25	(0.6 - 80.6)	9	55.6	(21.2 - 86.3)	
Urine protein	4	50	(6.8 - 93.2)	9	77.8	(40 - 97.2)	
Platelet count	4	75	(19.4 - 99.4)	9	77.8	(40 - 97.2)	
Aspartate aminotransferase /	4	50	(6.8 - 93.2)	9	55.6	(21.2 - 86.3)	
glutamic-oxalacetic transaminase							
Alanine transaminase /	4	50	(6.8 - 93.2)	9	55.6	(21.2 - 86.3)	
glutamic-pyruvic transaminase							
Lactate dehydrogenase	4	50	(6.8 - 93.2)	9	66.7	(29.9 - 92.5)	
All appropriate medications administered	4	50	(6.8 - 93.2)	9	55.6	(21.2 - 86.3)	
Magnesium sulfate	4	75	(19.4 - 99.4)	9	66.7	(29.9 - 92.5)	
Hydralazine / nifedipine (if systolic bp	2	100	(15.8 - 100)	2	50.0	(1.3 - 98.7)	
>=160 or diastolic bp >=110)							
Dexamethasone/betamethasone (if	2	50	(1.3 - 98.7)	1	0.0	(0 - 97.5)	
gestational age >=24 or <=35 weeks							
Eclampsia managed according to SMI standard	4	25	(0.6 - 80.6)	9	33.3	(7.5 - 70.1)	



Table D7.24: Maternal complications management, basic facilities

		Base	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Sepsis managed according to SMI standard	1	100.0	(2.5 - 100)	5	40.0	(5.3 - 85.3)	
Hemorrhage managed according to SMI standard	9	22.2	(2.8 - 60)	76	39.5	(28.4 - 51.4)	
Pre-eclampsia managed according to SMI standard	18	5.6	(0.1 - 27.3)	144	4.2	(1.5 - 8.8)	
Eclampsia managed according to SMI standard	1	0.0	(0 - 97.5)	7	14.3	(0.4 - 57.9)	
$Complications\ managed\ according\ to\ SMI\ standard$	28	10.7	(2.3 - 28.2)	231	16.5	(11.9 - 21.9)	

Table D7.25: Maternal complications management, complete facilities

		Bas	eline	Second Follow-Up			
	N	%	CI	N	%	CI	
Sepsis managed according to SMI standard	6	66.7	(22.3 - 95.7)	3	66.7	(9.4 - 99.2)	
Hemorrhage managed according to SMI standard	65	23.1	(13.5 - 35.2)	49	53.1	(38.3 - 67.5)	
Pre-eclampsia managed according to SMI standard	46	15.2	(6.3 - 28.9)	80	17.5	(9.9 - 27.6)	
Eclampsia managed according to SMI standard	4	25.0	(0.6 - 80.6)	10	30.0	(6.7 - 65.2)	
$Complications\ managed\ according\ to\ SMI\ standard$	116	20.7	(13.7 - 29.2)	137	31.4	(23.7 - 39.9)	

Table D7.26: Neonatal sepsis management, basic facilities

		Ba	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	25	92	(74 - 99)	39	92.3	(79.1 - 98.4)	
Pulse / heart rate	25	96	(79.6 - 99.9)	39	92.3	(79.1 - 98.4)	
Respiratory rate	25	96	(79.6 - 99.9)	39	92.3	(79.1 - 98.4)	
Temperature	25	96	(79.6 - 99.9)	39	94.9	(82.7 - 99.4)	
Lab tests	25	48	(27.8 - 68.7)	39	64.1	(47.2 - 78.8)	
Blood biometry	25	48	(27.8 - 68.7)	39	64.1	(47.2 - 78.8)	
Antibiotics administered	25	80	(59.3 - 93.2)	39	82.1	(66.5 - 92.5)	
Evaluated by doctor (basic) or specialist (complete)	25	96	(79.6 - 99.9)	39	92.3	(79.1 - 98.4)	
Referred to complete facility (if septic shock)	-	-	-	2	50.0	(1.3 - 98.7)	
Sepsis managed according to SMI standard	25	44	(24.4 - 65.1)	39	53.8	(37.2 - 69.9)	



Table D7.27: Neonatal sepsis management, complete facilities

		Bas	eline	SecondFollow-Up			
	N	%	CI	N	%	CI	
Vital signs checked	67	95.5	(87.5 - 99.1)	52	98.1	(89.7 - 100)	
Pulse / heart rate	67	100.0	(94.6 - 100)	52	100.0	(93.2 - 100)	
Respiratory rate	67	98.5	(92 - 100)	52	100.0	(93.2 - 100)	
Temperature	67	100.0	(94.6 - 100)	52	100.0	(93.2 - 100)	
Abdominal exam	67	97.0	(89.6 - 99.6)	52	98.1	(89.7 - 100)	
Lab tests	67	1.5	(0 - 8)	52	1.9	(0 - 10.3)	
Blood biometry	67	95.5	(87.5 - 99.1)	52	92.3	(81.5 - 97.9)	
Oxygensaturation	67	44.8	(32.6 - 57.4)	52	61.5	(47 - 74.7)	
C-reactive protein	67	47.8	(35.4 - 60.3)	52	57.7	(43.2 - 71.3)	
Blood culture	67	9.0	(3.4 - 18.5)	52	17.3	(8.2 - 30.3)	
Neutrophil band ratio / absolute ratio	67	37.3	(25.8 - 50)	52	71.2	(56.9 - 82.9)	
Antibiotics administered	67	95.5	(87.5 - 99.1)	52	98.1	(89.7 - 100)	
Evaluated by doctor (basic) or specialist	67	59.7	(47 - 71.5)	52	90.4	(79 - 96.8)	
(complete)							
Sepsis managed according to SMI standard	67	1.5	(0 - 8)	52	1.9	(0 - 10.3)	

Table D7.28: Neonatal asphyxia management, basic facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Vital signs checked	18	94.4	(72.7 - 99.9)	22	81.8	(59.7 - 94.8)		
Pulse / heart rate	18	100.0	(81.5 - 100)	22	95.5	(77.2 - 99.9)		
Respiratory rate	18	100.0	(81.5 - 100)	22	90.9	(70.8 - 98.9)		
APGAR score at one minute	18	94.4	(72.7 - 99.9)	22	90.9	(70.8 - 98.9)		
APGAR score at five minutes	18	94.4	(72.7 - 99.9)	22	86.4	(65.1 - 97.1)		
Oxygen saturation (if APGAR <= 3 at five minutes)	1	0.0	(0 - 97.5)	2	100.0	(15.8 - 100)		
AMBU / endotracheal intubation / cardiac massage (if APGAR <= 3 at five minutes)	1	100.0	(2.5 - 100)	2	100.0	(15.8 - 100)		
Heat application	18	94.4	(72.7 - 99.9)	22	72.7	(49.8 - 89.3)		
Evaluted by doctor (if basic) or specialist (if complete)	18	100.0	(81.5 - 100)	22	95.5	(77.2 - 99.9)		
Referred to complete facility (if APGAR <= 3 at five minutes)	1	0.0	(0 - 97.5)	2	50.0	(1.3 - 98.7)		
Asphyxia managed according to SMI standard	18	83.3	(58.6 - 96.4)	22	59.1	(36.4 - 79.3)		



Table D7.29: Neonatal asphyxia management, complete facilities

		Bas	eline		Second F	ollow-Up
	N	%	CI	N	%	CI
Vital signs checked	30	93.3	(77.9 - 99.2)	26	100.0	(86.8 - 100)
Pulse / heart rate	30	100.0	(88.4 - 100)	26	100.0	(86.8 - 100)
Respiratory rate	30	96.7	(82.8 - 99.9)	26	100.0	(86.8 - 100)
APGAR score at one minute	30	96.7	(82.8 - 99.9)	26	100.0	(86.8 - 100)
APGAR score at five minutes	30	96.7	(82.8 - 99.9)	26	100.0	(86.8 - 100)
Laboratory tests (if APGAR <=3 at five minutes	1	0.0	(0 - 97.5)	-	-	-
Oxygen saturation (if APGAR <= 3 at five minutes)	1	100.0	(2.5 - 100)	-	-	-
AMBU / endotracheal intubation / cardiac massage (if APGAR <= 3 at five minutes)	1	0.0	(0 - 97.5)	-	-	-
Parsol medications (if APGAR <=3 at five minutes	1	100.0	(2.5 - 100)	-	-	-
Heat application	30	86.7	(69.3 - 96.2)	26	100.0	(86.8 - 100)
Evaluted by doctor (if basic) or specialist (if complete)	30	80.0	(61.4 - 92.3)	26	88.5	(69.8 - 97.6)
Asphyxia managed according to SMI standard	30	63.3	(43.9 - 80.1)	26	88.5	(69.8 - 97.6)

Table D7.30: Neonatal low birth weight management, basic facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Gestational age calculated using	13	69.2	(38.6 - 90.9)	57	78.9	(66.1 - 88.6)		
Capurro/Ballard								
Weight classification (if in-facility delivery)	12	100.0	(73.5 - 100)	45	95.6	(84.9 - 99.5)		
Vital signs checked	13	61.5	(31.6 - 86.1)	57	54.4	(40.7 - 67.6)		
Weight	13	92.3	(64 - 99.8)	57	96.5	(87.9 - 99.6)		
Height	13	92.3	(64 - 99.8)	57	87.7	(76.3 - 94.9)		
Pulse / heart rate	13	92.3	(64 - 99.8)	57	94.7	(85.4 - 98.9)		
Respiratory rate	13	84.6	(54.6 - 98.1)	57	94.7	(85.4 - 98.9)		
Head circumference	13	92.3	(64 - 99.8)	57	87.7	(76.3 - 94.9)		
Silverman-Anderson score	13	69.2	(38.6 - 90.9)	57	54.4	(40.7 - 67.6)		
APGAR score (at 1 or 5 minutes)	13	100.0	(75.3 - 100)	57	80.7	(68.1 - 90)		
Breastfed / given glucose	13	69.2	(38.6 - 90.9)	57	86.0	(74.2 - 93.7)		
Evaluated by doctor (basic) or specialist	13	100.0	(75.3 - 100)	57	96.5	(87.9 - 99.6)		
(complete)								
Referred to complete facility (if weight <	6	16.7	(0.4 - 64.1)	14	64.3	(35.1 - 87.2)		
1500 grams or had additional								
complications)								
Low birth weight managed according to	13	23.1	(5 - 53.8)	57	45.6	(32.4 - 59.3)		
SMI standard								

<sup>&</sup>lt;sup>a</sup> Additional complications include: respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations



Table D7.31: Neonatal low birth weight management, complete facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Gestational age calculated using	20	75.0	(50.9 - 91.3)	41	85.4	(70.8 - 94.4)		
Capurro/Ballard								
Weight classification (if in-facility delivery)	15	93.3	(68.1 - 99.8)	31	100.0	(88.8 - 100)		
Vital signs checked	20	40.0	(19.1 - 63.9)	41	70.7	(54.5 - 83.9)		
Weight	20	100.0	(83.2 - 100)	41	100.0	(91.4 - 100)		
Height	20	85.0	(62.1 - 96.8)	41	97.6	(87.1 - 99.9)		
Pulse / heart rate	20	100.0	(83.2 - 100)	41	95.1	(83.5 - 99.4)		
Respiratory rate	20	95.0	(75.1 - 99.9)	41	95.1	(83.5 - 99.4)		
Head circumference	20	85.0	(62.1 - 96.8)	41	85.4	(70.8 - 94.4)		
Silverman-Anderson score	20	45.0	(23.1 - 68.5)	41	73.2	(57.1 - 85.8)		
APGAR score (at 1 or 5 minutes)	20	70.0	(45.7 - 88.1)	41	82.9	(67.9 - 92.8)		
Breastfed / given glucose	20	60.0	(36.1 - 80.9)	41	80.5	(65.1 - 91.2)		
Evaluated by doctor (basic) or specialist	20	90.0	(68.3 - 98.8)	41	73.2	(57.1 - 85.8)		
(complete)								
Appropriate management of the	4	75.0	(19.4 - 99.4)	6	66.7	(22.3 - 95.7)		
following complications:								
If pneumonia: antibiotics	-	-	-	-	-	-		
If diarrhea: IV solution + antibiotics	-	-	-	-	-	-		
If seizures: anticonvulsants	1	0.0	(0 - 97.5)	-	-	-		
If hypoglycemia: glucose IV	3	100.0	(29.2 - 100)	6	66.7	(22.3 - 95.7)		
Low birth weight managed according to SMI standard	20	25.0	(8.7 - 49.1)	41	39.0	(24.2 - 55.5)		



Table D7.32: Neonatal prematurity management, basic facilities

		Bas	eline		Second	Follow-Up
	N	%	CI	N	%	CI
Gestational age calculated using Capurro/Ballard	3	33.3	(0.8 - 90.6)	26	84.6	(65.1 - 95.6)
Classification based on gestational age (if in-facility delivery)	2	50.0	(1.3 - 98.7)	18	77.8	(52.4 - 93.6)
Vital signs checked	3	66.7	(9.4 - 99.2)	26	38.5	(20.2 - 59.4)
Weight	3	100.0	(29.2 - 100)	26	84.6	(65.1 - 95.6)
Pulse / heart rate	3	100.0	(29.2 - 100)	26	84.6	(65.1 - 95.6)
Respiratory rate	3	100.0	(29.2 - 100)	26	80.8	(60.6 - 93.4)
Head circumference	3	66.7	(9.4 - 99.2)	26	57.7	(36.9 - 76.6)
Silverman-Anderson score	3	66.7	(9.4 - 99.2)	26	53.8	(33.4 - 73.4)
APGAR score (at 1 or 5 minutes)	3	66.7	(9.4 - 99.2)	26	73.1	(52.2 - 88.4)
Laboratory tests	3	66.7	(9.4 - 99.2)	26	15.4	(4.4 - 34.9)
Glycemiatest	3	66.7	(9.4 - 99.2)	26	15.4	(4.4 - 34.9)
Heat application	3	66.7	(9.4 - 99.2)	26	61.5	(40.6 - 79.8)
Breastfed / given glucose	3	66.7	(9.4 - 99.2)	26	65.4	(44.3 - 82.8)
Evaluated by doctor (basic) or specialist (complete)	3	100.0	(29.2 - 100)	26	92.3	(74.9 - 99.1)
Referred to complete facility (if <= 34 weeks gestsion or additional complications)	2	0.0	(0 - 84.2)	15	73.3	(44.9 - 92.2)
Prematurity managed according to SMI standard	3	0.0	(0 - 70.8)	26	7.7	(0.9 - 25.1)

<sup>&</sup>lt;sup>a</sup> Additional complications include: respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations



Table D7.33: Neonatal prematurity management, complete facilities

		Bas	eline		Second Follow-Up			
	N	%	CI	N	%	CI		
Gestational age calculated using Capurro/Ballard	33	97.0	(84.2 - 99.9)	31	96.8	(83.3 - 99.9)		
Classification based on gestational age (if in-facility delivery)	23	78.3	(56.3 - 92.5)	26	73.1	(52.2 - 88.4)		
Vital signs checked	33	54.5	(36.4 - 71.9)	31	71.0	(52 - 85.8)		
Weight	33	97.0	(84.2 - 99.9)	31	100.0	(88.8 - 100)		
Pulse / heart rate	33	100.0	(89.4 - 100)	31	96.8	(83.3 - 99.9)		
Respiratory rate	33	97.0	(84.2 - 99.9)	31	96.8	(83.3 - 99.9)		
Head circumference	33	97.0	(84.2 - 99.9)	31	90.3	(74.2 - 98)		
Silverman-Anderson score	33	60.6	(42.1 - 77.1)	31	74.2	(55.4 - 88.1)		
APGAR score (at 1 or 5 minutes)	33	66.7	(48.2 - 82)	31	87.1	(70.2 - 96.4)		
Laboratorytests	33	69.7	(51.3 - 84.4)	31	74.2	(55.4 - 88.1)		
Glycemia test	33	90.9	(75.7 - 98.1)	31	80.6	(62.5 - 92.5)		
Oxygen saturation level	33	78.8	(61.1 - 91)	31	87.1	(70.2 - 96.4)		
Heat application	33	54.5	(36.4 - 71.9)	31	67.7	(48.6 - 83.3)		
Breastfed / given glucose	33	93.9	(79.8 - 99.3)	31	87.1	(70.2 - 96.4)		
Evaluated by doctor (basic) or specialist (complete)	33	93.9	(79.8 - 99.3)	31	74.2	(55.4 - 88.1)		
Appropriate management of any additional complications	11	100.0	(71.5 - 100)	2	50.0	(1.3 - 98.7)		
If pneumonia: antibiotics	2	100.0	(15.8 - 100)	-	-	-		
If diarrhea: IV solution + antibiotics	-	-	-	-	-	-		
If seizures: anticonvulsants	-	-	-	-	-	-		
If hypoglycemia: glucose IV	10	100.0	(69.2 - 100)	2	50.0	(1.3 - 98.7)		
Prematurity managed according to SMI standard	33	15.2	(5.1 - 31.9)	31	22.6	(9.6 - 41.1)		

Table D7.34: Neonatal complications management, basic facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
Sepsis managed according to SMI standard	25	44.0	(24.4 - 65.1)	46	54.3	(39 - 69.1)
Asphyxia managed according to SMI standard	18	83.3	(58.6 - 96.4)	23	56.5	(34.5 - 76.8)
Low birth weight managed according to SMI standard	13	23.1	(5 - 53.8)	62	45.2	(32.5 - 58.3)
Prematurity managed according to SMI standard	3	0.0	(0 - 70.8)	28	7.1	(0.9 - 23.5)
Complications managed according to SMI standard	49	46.9	(32.5 - 61.7)	137	42.3	(33.9 - 51.1)



Table D7.35: Neonatal complications management, complete facilities

	Baseline			Second Follow-Up		
	N	%	CI	N	%	CI
Sepsis managed according to SMI standard	67	1.5	(0 - 8)	61	1.6	(0 - 8.8)
Asphyxia managed according to SMI standard	30	63.3	(43.9 - 80.1)	30	90.0	(73.5 - 97.9)
Low birth weight managed according to SMI standard	20	25.0	(8.7 - 49.1)	43	39.5	(25 - 55.6)
Prematurity managed according to SMI standard	33	15.2	(5.1 - 31.9)	33	21.2	(9 - 38.9)
Complications managed according to SMI standard	104	10.6	(5.4 - 18.1)	114	21.9	(14.7 - 30.6)



Table D8.1: Infection control and disposal, ambulatory facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Incinerator at facility	58	0.0	(0 - 6.2)	68	11.8	(5.2 - 21.9)	
Contract with other facility for disposal (if no incinerator)	58	25.9	(15.3 - 39)	59	27.1	(16.4 - 40.3)	
Manual for decontamination	56	28.6	(17.3 - 42.2)	67	40.3	(28.5 - 53)	

<sup>&</sup>lt;sup>a</sup> Two facilities at the baseline responded 'don't know/decline to respond' when asked about an incinerator at the facility and contract for disosal. Four facilities at the baseline responded 'don't know/decline to respond' when asked about a manual for decontamination. These are excluded from the table.

Table D8.2: Infection control and disposal, basic facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Incinerator at facility  Contract with other facility for disposal (if	18	5.6 82.4	(0.1 - 27.3) (56.6 - 96.2)	19 19	0.0 89.5	(0 - 17.6) (66.9 - 98.7)	
noincinerator)	17	02.4	(30.0 - 90.2)	19	69.5	(00.9 - 96.7)	
Manual for decontamination	18	61.1	(35.7 - 82.7)	19	57.9	(33.5 - 79.7)	

Table D8.3: Infection control and disposal, complete facilities

		Bas	seline	Second Follow-Up			
	N	%	CI	N	%	CI	
Incinerator at facility	12	8.3	(0.2 - 38.5)	3	0	(0 - 70.8)	
Contract with other facility for disposal (if no incinerator)	11	90.9	(58.7 - 99.8)	3	100	(29.2 - 100)	
Manual for decontamination	12	83.3	(51.6 - 97.9)	3	100	(29.2 - 100)	

<sup>&</sup>lt;sup>a</sup> One facility at the first follow-up responded 'don't know/decline to respond' when asked about a manual for decontamination and is excluded from the table

<sup>&</sup>lt;sup>b</sup> One facility at the second follow-up responded 'don't know/decline to respond' when asked about a contract for disposal. One facility at the second follow-up 'don't know/decline to respond' when asked about a manual for decontamination. These facilities are excluded from the table.



# **Appendix E: Indicator Definitions**

# Performance indicators

3035: Women of reproductive age who received five prenatal care visits according to the best practices in the last two years

Denominator:

Total number of antenatal care records in the sample at ambulatory facilities.

Formula:

Ambulatory: Observe the following in the record: woman had at least five ANC visits + physical checkups performed at each visit (weight + blood pressure + fundal height (if gestational age >13 weeks) + fetal heart rate (if gestational age >20 weeks) + fetal movement (if gestational age >20 weeks)). Lab tests performed at least once: glycemia test + HIV test + Hb level + urinalysis.

4050: Institutional postpartum patients who were evaluated and registered in clinical records within two hours after birth in the last two years

Denominator:

Total number of postpartum records at basic and complete facilities, excluding women who did not deliver in the facility.

Formula:

Complete: Observe the following in the record: Woman had four checks of blood pressure + temperature + heart rate/pulse + respiratory rate in the first hour after delivery. Woman had two checks of blood pressure + temperature + heart rate/pulse + respiratory rate in the second hour after delivery. Woman was checked at discharge for blood pressure + temperature + heart rate/pulse + respiratory rate.

4070: Neonatal complications (low birth weight, prematurity, asphyxia, and sepsis) managed according to the norm in the last two years

Denominator:

Total number of records of neonates with birth complications (prematurity, low birth weight, birth asphyxia, or sepsis) in the sample at basic & complete facilities.

Formula:

Prematurity: excluding neonates with gestational age >=37 weeks

Basic:

Observe the following in the record: gestational age calculation using Capurro or Ballard + classification based on gestational age (if neonate was not referred from another facility) + pulse/heart rate +



respiratory rate + weight + Silverman-Anderson score + Head circumference + Apgar score (at 1 or 5 minutes) + glycemia test + heat was applied + neonate was breastfed/fed glucose + evaluated by a doctor + refer to a complete facility (if <=34 weeks gestation or additional complications - respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations)

# Complete:

Observe the following in the record: gestational age calculation using Capurro or Ballard + classification based on gestational age (if neonate was not referred from another facility) + pulse/heart rate + respiratory rate + weight + Silverman-Anderson score + Head circumference + Apgar score (at 1 or 5 minutes) + glycemia test + oxygen saturation level + incubator was used + neonate was breastfed/fed glucose + evaluated by a specialist + appropriate care (below):

if neonate has pneumonia: antibiotics

• if neonate has diarrhea: antibiotics + IV treatment

• if neonate has seizures: anticonvulsants

• if neonate has hypoglycemia: IV glucose serum

# Low birth weight:

# Basic:

Observe the following in the record: gestational age calculation using Capurro or Ballard + classification based on weight (if neonate was not referred from another facility) + pulse/heart rate + respiratory rate + weight + Silverman-Anderson score + Head circumference + Apgar score (at 1 or 5 minutes) + height + neonate was breastfed/fed glucose + evaluated by a doctor + refer to a complete facility (if <1500 gr or additional complications - respiratory complications (pneumonia or tachypnea or asphyxia or hyaline membrane or respiratory distress syndrome) or digestive (diarrhea or enterocolitis) or neurological (convulsions, lethargic, not breast) or metabolic (hypoglycemia) or major malformations)

# Complete:

Observe the following in the record: gestational age calculation using Capurro or Ballard + classification based on weight (if neonate was not referred from another facility) + pulse/heart rate + respiratory rate + weight + Silverman-Anderson score + Head circumference + Apgar score (at 1 or 5 minutes) + height + neonate was breastfed/fed glucose + evaluated by a specialist + appropriate care (below):

• if neonate has pneumonia: antibiotics

• if neonate has diarrhea: antibiotics + IV treatment

• if neonate has seizures: anticonvulsants

• if neonate has hypoglycemia: IV glucose serum

Asphyxia: excluding cases referred to the facility

Basic:



Observe the following in the record: pulse/heart rate + respiratory rate + Apgar score at 1 minutes + Apgar score at 5 minutes + evaluated by a doctor + heat was applied + AMBU/positive pressure ventilation (if severe asphyxia) + oxygen application (if severe asphyxia) + refer to a complete facility (if severe asphyxia & neonate did not die in the facility)

# Complete:

Observe the following in the record: pulse/heart rate + respiratory rate + Apgar score at 1 minutes + Apgar score at 5 minutes + evaluated by a specialist + heat was applied + AMBU/positive pressure ventilation/endotracheal intubation (if severe asphyxia) + oxygen application (if severe asphyxia) + oxygen saturation level test (if severe asphyxia) + administered a parenteral solution (if severe asphyxia)

\*severe asphyxia is defined as Apgar score at 5 minutes <=3

Sepsis:

Basic:

Observe the following in the record: heart rate/pulse + respiratory rate + temperature + administered antibiotics + blood biometry (leukocyte count + hemoglobin + platelet count + hematocrit) + evaluated by a doctor + refer to a complete facility (if hemodynamic failure or septic shock)

# Complete:

Observe the following in the record: heart rate/pulse + respiratory rate + temperature + abdominal exam + oxygen saturation level + blood biometry (leukocyte count + hemoglobin + platelet count + hematocrit) + blood culture + c-reactive protein + neutrophil band ratio/absolute neutrophil ratio + antibiotic administration + evaluated by a specialist

4080: Women with obstetric complications (sepsis, hemorrhage, severe pre-eclampsia, and eclampsia) managed according to the norm in the last 2 years

# Denominator:

Total number of records of women with maternal complications (hemorrhage, severe pre-eclampsia, eclampsia, or sepsis) in the sample at basic & complete facilities.

Formula:

Hemorrhage:

Basic:

Observe the following in the record: pulse/heart rate + blood pressure + ringer's lactate/hartmann's solution + appropriate care (below):

- If incomplete complicated abortion with hemorrhage or hemorrhage after abortion: AMEU/curettage/refer to complete facility
- If ectopic pregnancy/broken ectopic pregnancy: laparotomy/salpingectomy/fibroidectomy/ hysterectomy/surgical repair/refer to complete facility



- If placenta previa with hemorrhage/placental detachment: laparotomy/hysterectomy/surgical repair/caesarean section/de-arterialization/refer to complete facility
- If uterine rupture: laparotomy/hysterectomy/surgical repair/uterine artery impingement/caesarean section/refer to complete facility
- If uterine atony: uterotonic + (bimanual compression/compression sutures/uterine massage/hydrostatic balloon/Bakri balloon/uterine artery impingement/uterine tamponade/hysterectomy/refer to complete facility)
- If uterine inversion: uterotonic + (reposition/restoration of the uterus under sedation/anesthesia with surgical or non-surgical techniques OR refer to complete facility)
- If retained placenta: manual extraction/hysterectomy/refer to complete facility
- If partial placental retention/placental remnants: uterotonic + (manual extraction/curettage/refer to complete facility)

# Complete:

Observe the following in the record: pulse/heart rate + blood pressure + hematocrit + hemoglobin + platelet count + Rh factor + blood group + prothrombin + partial thromboplastin + platelet count + appropriate care (below):

- If incomplete complicated abortion with hemorrhage or hemorrhage after abortion: AMEU/curettage
- If ectopic pregnancy/broken ectopic pregnancy: laparotomy/salpingectomy/fibroidectomy/ hysterectomy/surgical repair
- If placenta previa with hemorrhage/placental detachment: laparotomy/hysterectomy/surgical repair/caesarean section/de-arterialization
- If uterine rupture: laparotomy/hysterectomy/surgical repair/uterine artery impingement/caesarean section
- If uterine atony: uterotonic + (bimanual compression/compression sutures/uterine massage/hydrostatic balloon/Bakri balloon/uterine artery impingement/uterine tamponade/hysterectomy)
- If uterine inversion: uterotonic + reposition/restoration of the uterus under sedation/anesthesia with surgical or non-surgical technique
- If retained placenta: manual extraction/hysterectomy
- If partial placental retention/placental remnants: uterotonic + (manual extraction/curettage)

Severe Pre-eclampsia & Eclampsia:

# Basic:

Observe the following in the record: Blood pressure + urine protein + magnesium sulfate + hydralazine/nifedipine (if systolic blood pressure ever >= 160 or diastolic blood pressure ever >=110) + refer to complete facility

# Complete:



Observe the following in the record: Blood pressure + pulse/heart rate + respiratory rate + patellar reflex + urine protein + platelet count + aspartate aminotransferase/glutamic-oxaloacetic transaminase (TGO or GOT) + alanine aminotransferase/glutamic-pyruvic transaminase (TGP or GPT) + lactate dehydrogenase + magnesium sulfate + hydralazine/ nifedipine (if systolic blood pressure ever >= 160 or diastolic blood pressure ever >= 110) + dexamethasone/betamethasone (if gestational age >= 24 weeks & <= 35 weeks)

# Sepsis:

#### Basic:

Observe the following in the record: Pulse/heart rate + Blood pressure + temperature + administered antibiotics + appropriate care (below):

- If postpartum or post-cesarean endometritis: antibiotics/refer to complete facility
- If fever: antibiotics/refer to complete facility
- If pelvic abscess: laparotomy/drainage/hysterectomy/surgical repair/refer to complete facility
- If abortion: AMEU/hysterectomy/refer to complete facility
- If uterine perforation: surgical repair/hysterectomy/refer to complete facility
- If retained products: curettage/laparotomy/hysterectomy/refer to a complete facility

# Complete:

Observe the following in the record: pulse/ heart rate + blood pressure + temperature + blood biometry (hemoglobin + hematocrit + platelet count + leukocyte count) + administered antibiotics + appropriate care (below):

- If postpartum or post-cesarean endometritis: antibiotics
- If fever: antibiotics
- If pelvic abscess: laparotomy/drainage/hysterectomy/surgical repair
- If abortion: AMEU/hysterectomy
- If uterine perforation: surgical repair/hysterectomy
- If retained products: curettage/laparotomy/hysterectomy

# **Monitoring Indicators**

4090: Active management of the 3rd stage of labor in births in the last two years

# Denominator:

Total number of delivery records at basic and complete facilities, excluding records that were not an in-facility delivery.



Formula:

Basic & Complete:

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

3030: Women of reproductive age who received four prenatal care visits according to the best practices 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 at least four ANC visits + physical checkups performed at each visit (weight + blood pressure + fundal height + presence of edemas + reflexes + fetal heart rate (if gestational age >20 weeks) + fetal movement (if gestational age >20 weeks)). Lab tests performed at least once: blood type + Rh factor + blood glucose + VDRL/RPR + Hb level + urinalysis + HIV test + platelet count + uric acid in blood + uric acid in urine.

Basic & Complete: Observe the following in the record: woman had at least four ANC visits + physical checkups performed at each visit (weight + blood pressure + fundal height + presence of edemas + reflexes + fetal heart rate (if gestational age >20 weeks) + fetal movement (if gestational age >20 weeks)). Lab tests performed at least once: blood type + Rh factor + blood glucose + VDRL/RPR + Hb level + urinalysis.

3040: Women of reproductive age who received their first antenatal care visit before 12 weeks of gestation in the last two years

Denominator:

Total number of antenatal care records in the sample.

Formula:

Ambulatory, Basic & Complete: date of 1st ANC visit - date of last menstrual period = before 12 weeks gestation

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, excluding women who did not receive antenatal care in-facility

Formula:



Ambulatory: Observe the following in the record: woman had at least 4 ANC visits + physical checkups performed at each visit (weight + blood pressure + fundal height (if gestational age >20 weeks) + fetal heart rate (if gestational age >20 weeks) + fetal movement (if gestational age >20 weeks)). Lab tests performed at least once: blood glucose level + HIV test + Hb level + urinalysis + Rh factor + blood group + VDRL/RPR.

# 4103: Neonates who received care according to standards from medical personnel after birth in the last 2 years

# Denominator:

Total number of postpartum care records in the sample.

#### Formula:

Basic & Complete: All procedures and checkups recorded: evaluation for the presence of malformations + skin evaluation + APGAR score (at 1 or 5 minutes) + pulse/heart rate + respiratory rate + weight + height + head circumference. Administration of the following: vitamin k + prophylaxis with oxytetracycline ophthalmic/chloramphenicol + curing the umbilical cord with water and chlorhexidine + BCG vaccine

# 4120: C-sections as proportion of childbirths in the last two years

#### Denominator:

Total number of delivery records at basic and complete facilities, excluding women who arrived for elective c-section or imminent birth

# Formula:

Basic & Complete: Observe the following in the record: Partograph included and filled out + Alert curve and fetal heart rate recorded (if dilation >4.5cm) + Note exists within 30 minutes if alert curve surpassed + note exists within 30 minutes if fetal heart rate < 110 bpm

### 4130: Children diagnosed with diarrhea and treated appropriately in the last two years

#### Denominator:

Total number of diarrhea care records from ambulatory facilities in the sample.

#### Formula:

Ambulatory: Symptoms recorded (general condition + eyes + thirst + skinfold) + checkups performed (capillary refill + pulse) + oral rehydration salts were administered.

# 7000: Number of health facilities that have cold chain according to the norms

#### Denominator:



Total number of health facilities that store vaccines and have at least one functional refrigerator in the sample.

#### Formula:

Ambulatory, Basic & Complete: Observed on the day of the survey: temperature of the fridge was between 2 - 8 degrees Celsius on the day of the survey + temperature monitoring chart was found for each functioning fridge + temperature was recorded twice daily during the last 30 days for each fridge + temperature for each fridge was between 2 - 8 degrees Celsius during the last 30 days and if the temperature was not within that range, there is a record of actions

# 7010: Health facilities with continuous availability of supplies and equipment needed for child care, immunization and nutrition

#### Denominator:

Total number of ambulatory and basic facilities that provide child care services

#### Formula:

Ambulatory facilities without a doctor: Observed on the day of the survey: pediatric scale/salter scale + standing scale/salter scale + height rod + stethoscope + thermometer + vaccination, health, or growth & development cards. No break in supply of the following inputs in the last three months (including the day of the survey): oral rehydration salts + ferrous sulfate/micronutrients for children + albendazole/mebendazole.

Ambulatory facilities with a doctor: Observed on the day of the survey: pediatric scale/salter scale + standing scale/salter scale + height rod + stethoscope + thermometer + vaccination, health, or growth & development cards. No break in supply of the following inputs in the last three months (including the day of the survey): oral rehydration salts + ferrous sulfate/micronutrients for children + albendazole/mebendazole + erythromycin/ampicillin/penicillin benzathine. No break in supply of the following inputs in the last three months (including the day of the survey) (only if facility stores vaccines): pentavalent(DPT + Hepb + Hib) + polio + MMR + influenza + rotavirus + pneumococcal conjugate + BCG

Basic: Observed on the day of the survey: pediatric scale/salter scale + standing scale/salter scale + height rod + pediatric blood pressure apparatus + pediatric stethoscope. No break in supply of the following inputs in the last three months (including the day of the survey): oral rehydration salts + ferrous sulfate/micronutrients for children + albendazole/mebendazole + penicillin crystalline/ampicillin/amoxicillin + ringer's lactate/hartmann's/saline solution. No break in supply of the following inputs in the last three months (including the day of the survey) (only if facility stores vaccines): pentavalent(DPT + Hepb + Hib) + polio + MMR + influenza + rotavirus + pneumococcal conjugate + BCG

Complete: Observed on the day of the survey: pediatric scale/salter scale + standing scale/salter scale + height rod + pediatric blood pressure apparatus + pediatric stethoscope. No break in supply of the following inputs in the last three months (including the day of the survey): oral rehydration salts + ferrous sulfate/micronutrients for children + albendazole/mebendazole + penicillin crystalline/ampicillin/amoxicillin + ringer's lactate/hartmann's/saline solution. No break in supply of the



following inputs in the last three months (including the day of the survey) (only if facility stores vaccines): pentavalent(DPT + Hepb + Hib) + polio + MMR + influenza + rotavirus + pneumococcal conjugate + BCG

# 7020: Health facilities with continuous availability of supplies and equipment needed for antenatal and postpartum care

#### Denominator:

Total number of health units that provide antenatal and postpartum care in the sample.

#### Formula:

Ambulatory facilities without a doctor: Observed on the day of the survey: scale + height rod + gynecological exam table + lamp + CLAP/measuring tape + blood pressure apparatus + stethoscope + maternal history card + ANC card. . No break in supply of the following inputs in the last three months (including the day of the survey): multivitamins/(iron + folic acid)

Ambulatory facilities with a doctor: Observed on the day of the survey: scale + height rod + gynecological exam table + lamp + CLAP/measuring tape + blood pressure apparatus + stethoscope + maternal history card + ANC card. No break in supply of the following inputs in the last three months (including the day of the survey): multivitamins/(iron + folic acid) + ayre's palettes + slides + nitrofurantoin + erythromycin/ampicillin/penicillin + tetanus vaccine (if facility stores vaccines)

Basic: Observed on the day of the survey: scale + height rod + gynecological exam table + lamp + CLAP/measuring tape + blood pressure apparatus + stethoscope + maternal history card + ANC card + intrauterine device kit. No break in supply of the following inputs in the last three months (including the day of the survey): multivitamins/(iron + folic acid) + ayre's palettes + slides + nitrofurantoin + cephalexin + tetanus vaccine (if facility stores vaccines) + Rh factor antibodies (if facility has a laboratory). Facility has all laboratory inputs on the day of the survey (if laboratory is observed at the facility): rapid HIV test + rapid syphilis test + urinalysis + glucometer + cell counter + microcuvettes + pregnancy test + blood type antibodies + Rh factor antibodies.

Complete: Observed on the day of the survey: scale + height rod + gynecological exam table + lamp + CLAP/measuring tape + blood pressure apparatus + stethoscope + maternal history card + ANC card + intrauterine device kit. No break in supply of the following inputs in the last three months (including the day of the survey): multivitamins/(iron + folic acid) + ayre's palettes + slides + nitrofurantoin + cephalexin + tetanus vaccine (if facility stores vaccines) + Rh factor antibodies (if facility has a laboratory). Facility has all laboratory inputs on the day of the survey (if laboratory is observed at the facility): rapid HIV test + rapid syphilis test + urinalysis + glucometer + cell counter + blood type antibodies + Rh factor antibodies.

# 7030: Health facilities with continuous availability of supplies and equipment needed for emergency obstetric and neonatal care

### Denominator:

Total number of basic & complete health units that provide emergency care in the sample.

#### Formula:



Basic: Observed on the day of the survey: blood pressure apparatus + stethoscope + Doppler portatil/pinard stethoscope + autoclave/heat sterilizer + oxygen tank/oxygen intake + resuscitation bag for adults + resuscitation bag for neonates + laryngoscope + equipment for AMEU/curettage kit. No break in supply of the following inputs in the last three months (including the day of the survey): ergonovine/ergometrine/oxytocin + dexamethasone/betamethasone + penicillin crystalline/ampicillin/amoxicillin + gentamicin + magnesium sulfate + hydralazine

Complete: Observed on the day of the survey: blood pressure apparatus + Doppler portatil/pinard stethoscope + autoclave/heat sterilizer + oxygen tank/oxygen intake + resuscitation bag for adults + resuscitation bag for neonates + laryngoscope + equipment for AMEU/curettage kit + neonatal/pediatric stethoscope + equipment for anesthesia + kit for caesarean sections. No break in supply of the following inputs in the last three months (including the day of the survey): ergonovine/ergometrine/oxytocin + dexamethasone/betamethasone + penicillin crystalline/ampicillin/amoxicillin + magnesium sulfate + hydralazine + amikacin sulfate + ceftriaxone + chloramphenicol/metronidazole + nifedipine + diazepam/midazolam + sevoflurane/propofol + succinylcholine chloride (suxamethonium)/vecuronium

# 7040: Health facilities with continuous availability of supplies and equipment needed for delivery and newborn care

#### Denominator:

Total number of basic & complete health units that provide delivery services in the sample.

#### Formula:

Basic: Observed on the day of the survey: serum equipment (macrogotero & microgoter) + sterile blankets for the newborn + neonatal nasogastric tube + sterile IV catheter No. 18 + metal clamp/umbilical tape. No break in supply of the following inputs in the last three months (including the day of the survey): ergonovine/ergometrine/oxytocin + povidone-iodine + insulin syringe + lidocaine without epinephrine (simple lidocaine) + hyoscine butylbromide/butylscopolamine + ringer's lactate/hartmann's/saline solution + ophthalmic chloramphenicol drops/1% silver nitrate/oxytetracycline ophthalmic + vitamin K/phytonadione

Complete: Observed on the day of the survey: serum equipment (macrogotero & microgoter) + sterile blankets for the newborn + neonatal nasogastric tube + sterile IV catheter No. 18 + metal clamp/umbilical tape. No break in supply of the following inputs in the last three months (including the day of the survey): ergonovine/ergometrine/oxytocin + povidone-iodine + insulin syringe + lidocaine without epinephrine (simple lidocaine) + hyoscine butylbromide/butylscopolamine + ringer's lactate/hartmann's/saline solution + ophthalmic chloramphenicol drops/1% silver nitrate/oxytetracycline ophthalmic + vitamin K/phytonadione

# 7050: Health facilities that have continuous availability of modern family planning methods

#### Denominator:

Total number of health facilities that store family planning methods in the sample.



#### Formula:

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

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

Complete: Facility reported the following personnel: doctor trained in tubal ligation + doctor trained in vasectomy. Observed on the day of the survey: IUD kit. No break in supply of the following inputs in the last three months (including the day of the survey): male condom + any oral pill + any injectable + IUD

# 7190: Health facilities with staff available 24 hours a day, 7 days a week

Denominator:

Total number of complete health facilities in the sample.

Formula:

Complete: 24/7 on call availability of: gynecologist + internist + anesthesiologist

#### 7210: Access to safe blood

Denominator:

Total number of complete health facilities in the sample.

Formula:

Complete: Facilities have access to safe blood

# 8870: Health facilities with socio-cultural services

Denominator:

Total number of complete health facilities in the sample.

Formula:

Complete: Health facility self-reports adapting services to the sociocultural conditions of women