

SM2015 Nicaragua Baseline Health Facility Survey

Data Quality Report

January 2013



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

About IHME

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

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Acknowledgments

Thanks to El Colegio de la Frontera Sur (ECOSUR) for their participation in data collection for this project.

Chapter 1 SURVEY METHODOLOGY

1.1 Overview

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

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

1.2 Health facility survey

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

1.3 Contents and methods for data collection

1.3.1 Contents of the 2013 baseline Nicaragua health facility survey

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

months prior to the survey. The medical record review assesses the record keeping of the facilities and captures the facilities' treatment practices. In each part of the survey, data is 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. For the topics of child and maternal care and family planning, information is collected on the types of services provided, components of the care offered, equipment available, and quality of record keeping.

1.3.2 Methods for data collection

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

1.4 Sampling

For this evaluation, a sample of 90 health facilities was selected from a list of all facilities serving the 23 municipalities covered by the SM2015 initiative, located in the departments of Jinotega, Matagalpa, Región del Atlántico Norte (North Atlantic Autonomous Region), Madriz, and Región del Atlántico Sur (South Atlantic Autonomous Region). This list was constructed according to a referral network outlined by the Ministry of Health. All basic and complete facilities serving SM2015 areas, except the municipalities of San Dionisio and Rancho Grande, were included in the sample with certainty, due to small numbers. Basic and complete facilities in San Dionisio and Rancho Grande were excluded because the household survey was not conducted in these areas and the health facility selection was carried out to allow maximal data linkage between household and health facility data. Among all ambulatory facilities, the ECOSUR field data collection team identified those ambulatory facilities serving communities selected for the household survey. A random sample of ambulatory facilities was drawn from this shortened list of facilities to reach the quota of 60 intervention and 30 control facilities. In control areas, there were insufficient ambulatory facilities serving areas selected for the household survey, so the control sample was supplemented with four randomly selected ambulatory facilities that serve SM2015 municipalities, but not communities selected for the SM2015 household survey.

Data collection in Nicaragua faced several challenges, especially related to safety issues. Due to these safety problems, specifically to an assault suffered by a data collection team in the North Atlantic Autonomous Region, data collection had to be stopped. Therefore, only 40 facilities in intervention areas and 24 facilities in control areas were surveyed. To make sure that no bias was introduced because of this situation, the IHME team compared the characteristics of surveyed and non-surveyed areas and found no differences between them. Power calculations were also redone for the initiative performance indicators, to make sure that we have enough power with the sample sizes obtained.

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

1.5 Survey implementation

1.5.1 Data collection instruments

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

1.5.2 Training and supervision of data collectors

Training sessions and health facility pilot surveys were conducted in Nicaragua from February 25 to March 1, 2013. The 10 surveyors had a medical background (5 physicians and 5 nurses) and underwent 3 days of training. The training included an introduction to the initiative, proper conduct of the survey, an in-depth view of the instrument, and hands-on training on the CAPI software. Training was followed by a 2-day pilot of all components of the survey at actual health facilities.

1.5.3 Data collection and management

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

1.5.4 Data analysis and report writing

Ongoing data analysis was done at IHME and new data were continuously incorporated. Analysis was done using version 13. Performance indicators were calculated at IHME following the indicator definition provided by the Inter-American Development Bank (IDB). A mid-survey report was submitted to IDB with estimates on key for-payment indicators. This baseline data quality report includes information from facilities in intervention areas. An appendix of tables referring only to control areas are included (Appendix B) and an appendix of tables referring to aggregate data including both intervention and control areas are included (Appendix C).

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

2.1 General description of the facility

The main body of this report refers to facilities in intervention areas only. Information about control areas and aggregate data of both intervention and control areas are included in the appendices.

2.1.1 Type of health facility

A total of 40 facilities were evaluated: 32 ambulatory health units, 5 basic health units, and 3 complete health units. The health units are further broken down by facility classification and type in Table 2.1.1. The classification of ambulatory includes all health posts and health centers without hospitalization (without beds). Basic-level facilities include health centers with hospitalization (with beds) and primary hospitals. All other hospitals are classified as complete facilities. The facilities were located in 14 municipalities in a total of 3 departments (Table 2.1.2).

Table 2.1.1 Types of facilities

Classification	Facility type	No. of facilities
Ambulatory	Health post	30
	Health center without beds	2
Basic	Health center with beds	1
	Primary Hospital	4
Complete	Departmental Hospital	1
	Regional Hospital	2
Total	6	40

2.1.2 Geographical representation

Table 2.1.2 Geographical representation

Department	Municipality	No. of facilities
Jinotega	Bocay	2
	El Cua	4
	San Sebastián de Yali	2
	Santa María de Pantasma	1
	Wiwilí (Jinotega)	2
Matagalpa	Bocana de Paiwas	3
	Matagalpa	5
	Matiguás	3
	Tuma-La Dalia	4
Raan	Bonanza	1
	Puerto Cabezas	6
	Rosita	2
	Siuna	2
	Waspan	3
Total	14	40

2.1.3 Medical record extraction

The health facility survey included a review of 850 medical records. The number and type of medical records reviewed varied depending on the type of facility and the services it provided. Records of antenatal care were evaluated in all facilities. In addition, records of delivery, postpartum care, maternal complications, and neonatal complications were evaluated at basic- and complete- level facilities. Cases of women who stayed in maternity homes in the last 18 months, and attended their deliveries in the health facilities of the sample, were also identified in the health facilities, and reviewed for adoption of family planning methods (Table 2.1.3).

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

Medical records	Ambulatory	Basic	Complete	Total
Antenatal care	325	55	24	404
Delivery	n/a	66	24	90
Postpartum	n/a	53	24	77
Maternal complications	n/a	57	56	113
Neonatal complications	n/a	63	56	119
Maternity homes	16	18	13	47
Total	341	312	197	850

2.1.4 Referrals

In response to “Do you usually receive referred patients from another health facility?” 34.4% of ambulatory health units, and 100% of basic and complete facilities responded positively to receiving referred patients from other facilities.

2.1.5 Governing authority

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

2.1.6 Licensing and certification

When asked if the health facility was licensed by the Ministry of Health, 90% responded “Yes,” 2.5% responded “In process,” 5% responded “No,” and 2.5% responded “Don’t know.” Of the facilities that responded “Yes” or “In process,” only 13.5% presented a copy of the certificate during the interview.

2.2 Basic infrastructure

2.2.1 Electricity and water

Almost 88% of ambulatory health units had functional electricity. Of those, 92.9% used a central electricity supply, 10.7% used a solar generator, and 3.6% used an in-facility generator. All basic and complete health units had functional electricity. All basic and complete facilities used a central electricity supply. In addition to a central supply of electricity, 20% of basic and 33.3% of complete facilities owned an in-facility generator.

Among ambulatory-level facilities, reported sources of water varied. Most commonly, water was piped into the facility, although public and facility wells were also prevalent. In the “Other” response category, three ambulatory facilities reported that there was no source of water. Most basic- and complete-level facilities had water piped in, at 60% and 100% respectively, with facility wells also being an important source. One basic facility reported the water supply “tank of water” in the “Other” response option.

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

Table 2.2.1 Electricity and water

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Functional electricity	32	87.5	5.8	5	100		3	100	
DK/DR	0			0			0		
Source of electricity									
Central supply (Comisión Federal de Electricidad)	28	92.9	4.9	5	100		3	100	
Private supply	28	0	0.0	5	0		3	0	
In-facility generator	28	3.6	3.5	5	20	17.9	3	33.3	27.2
Solar generator	28	10.7	5.8	5	0		3	0	
Other source	28	3.6	3.5	5	0		3	0	
DK/ DR	0			0			0		
Source of water									
Piped into facility	32	46.9	8.8	5	60	21.9	3	100	
Public well	32	21.9	7.3	5	0		3	0	
Facility well	32	15.6	6.4	5	60	21.9	3	33.3	27.2
Unprotected well	32	3.1	3.1	5	0		3	0	
Hand pump	32	3.1	3.1	5	0		3	0	
Bottled water	32	0		5	0		3	0	
Tanker truck	32	0		5	0		3	0	
Rain water	32	3.1	3.1	5	0		3	0	
Other	32	9.4	5.2	5	20	17.9	3	0	
DK/ DR	0			0			0		

2.2.2 Internet access

Only 15% of all facilities had access to the Internet. More specifically, 3.1% of ambulatory, 40% of basic, and 100% of complete facilities reported having Internet access.

2.3 Personnel

Table 2.3.1 details the personnel composition across each facility classification. The mean represents the average number of personnel reported per category. Personnel were limited at ambulatory facilities.

While general physicians, nurses, and auxiliary nurses were common, specialty personnel were much less prevalent. In basic facilities, a wider range of personnel were represented, including the presence of surgeons, gynecologists, internists, and laboratory technicians. Complete facilities reported having, on average, at least one of each major specialty, as well as an average of 20.7 general physicians, 56.7 nurses, and 40 auxiliary nurses each. In general, midwives, social workers, health promoters, and emergency medical technicians were least prevalent. Open-ended answers to “Other” personnel types varied from dispatcher and specialist nurses to pulmonologists and physiotherapists.

Table 2.3.1 Personnel composition by facility classification

Personnel type	Ambulatory			Basic			Complete		
	N	mean	SE	N	mean	SE	N	mean	SE
General physician	32	0.8	1.4	5	3	2.0	3	20.7	12.1
Pediatrician	32	0.1	0.3	5	1.4	0.6	3	5.7	0.6
Nutritionist	32	0	0.2	5	0.2	0.4	3	1	1.0
Pharmacist	32	0	0.2	5	0.2	0.4	3	1	1.0
Nurse	32	1.4	3.1	5	17	11.9	3	56.7	32.2
Auxiliary nurse	32	0.9	1.4	5	14.8	8.6	3	40	34.9
Midwife	32	0		5	0		3	0	
Social worker	32	0		5	0		3	1.3	1.1
Laboratory technician	32	0.2	0.9	5	3.8	1.5	3	5.7	9.8
Health promoter	32	0	0.2	5	0.8	1.8	3	0	
Other	31	0.8	2.8	5	2.2	4.9	2	0.3	0.6
Internist	31	0		5	1		3	3	1.7
Gynecologist	31	0	0.2	5	1.2	0.4	3	4.7	1.5
Surgeon	31	0		5	1.2	0.4	3	8.7	6.1
Anesthesiologist	31	0		5	0.4	0.6	3	3.7	1.1
Emergency medical technician	31	0		5	0.4	0.9	2	0	
Radiology technician	31	0		5	0.8	0.4	3	5.3	5.8
Ambulance driver/polyvalent	31	0.3	0.9	5	2.6	0.6	3	4	1.7

Chapter 3 CHILD HEALTH

3.1 Child services offered — background

This chapter summarizes key indicators related to child health care. In the questionnaire component of the survey, facility representatives were asked about service provision and logistics of ordering and receiving supplies. In the observation component, interviewers observed the setting of the room in which child services were provided, functionality of equipment, stock of pharmacy inputs, stock of vaccines, and related educational materials.

All evaluated facilities reported child service provision. The majority of facilities provided a private room for these services, although some ambulatory facilities had non-private rooms instead (Table 3.1.1).

Table 3.1.1 Child health care service provision by facility classification

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N*	%	SE
Unit offers child services	32	100		5	100		3	100	
Child care room									
Private room with visual and auditory privacy	32	81.3	6.9	5	100		2	100	
Non-private room without auditory or visual privacy	32	12.5	5.8	5	0		2	0	
No privacy	32	3.1	3.1	5	0		2	0	
Other	32	3.1	3.1	5	0		2	0	

*Missing child care room data for one complete facility

3.2 Composite indicator for child care and nutrition

According to the indicator related to the continuous availability of supplies and equipment needed for child care, ambulatory and basic-level facilities were evaluated for observed and functional equipment, continuous availability of pharmacy inputs, and continuous availability of vaccines (in facilities that stored vaccines). Table 3.2.1 presents these three broad components of the indicator. As shown below, none of the evaluated facilities met all requirements. Equipment and pharmacy inputs for child care are further detailed in sections 3.3 and 3.4. Vaccines are further detailed in chapter 4.

Table 3.2.1 Continuous availability of supplies and equipment needed for child care

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Observed and functional equipment	32	3.1	3.1	5	0	
Continuous availability of pharmacy inputs	32	81.3	6.9	5	40	21.9
Continuous availability of vaccines*	23	4.3	4.3	5	0	
Meets all criteria listed above	32	0		5	0	

*Only applicable if facility store vaccines

3.3 Child health care equipment

In the health facility survey observation module, interviewers checked availability and functional status of inputs needed for child care among children under 5 years old. Table 3.3.1 lists equipment relating to basic child health care in facilities that provide these services. The mean represents the percentage of facilities that had at least one observed and functional piece of equipment at the time of the survey. Items were observed by the surveyors, rather than merely reported by facility staff. According to the country indicator manual, the indicator related to the continuous availability of supplies and equipment needed for child care is measured at ambulatory- and basic-level facilities. Ambulatory-level facilities include health posts and health centers without hospitalization. Basic-level facilities include health centers with hospitalization and primary hospitals. The equipment requirements varied depending on facility type (see Table 3.3.1 below). In general, ambulatory facilities were better equipped for child care than basic facilities.

Ambulatory: pediatric scale/balance + stadiometer + stethoscope + pediatric stethoscope (not required in health posts) + oral/axillary thermometer + and growth and development card.

Basic: pediatric scale/ balance + stadiometer + pediatric stethoscope + stethoscope + oral/axillary thermometer + and growth and development card.

Table 3.3.1 Child health care equipment observed and functional by facility type

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Pediatric balance or scale	32	81.3	6.9	5	80	17.9
Tallimeter or stadiometer	32	59.4	8.7	5	0	
Stethoscope	32	53.1	8.8	5	40	21.9
Pediatric stethoscope*	2	0		5	0	
Oral/axillary thermometer	32	18.8	6.9	5	40	21.9
Growth card	32	96.9	3.1	5	20	17.9
All equipment observed and functional	32	3.1	3.1	5	0	

*Pediatric stethoscopes were not measured in health posts

3.4 Important drugs and supplements for basic child care

3.4.1 Availability on the day of the survey

Interviewers also observed the availability and stock of important drugs and supplements used for basic child health care. According to the country indicator manual, pharmacy input requirements varied depending on facility type (see Table 3.4.1).

Ambulatory facilities should have ferrous sulfate/zinc sulfate/zinc gluconate, packets/envelopes of oral rehydration salt, albendazole/mebendazole, and antibiotics (amoxicillin/benzathine penicillin/erythromycin) in stock on the day of the survey. Antibiotics were not measured in health posts.

Basic facilities should have ferrous sulfate/zinc sulfate/zinc gluconate, Ringer's lactate/Hartmann's solution/saline solution, packets/envelopes of oral rehydration salt, albendazole/mebendazole, and

antibiotics (amoxicillin/benzathine penicillin/erythromycin) in stock on the day of the survey.

Table 3.4.1 Child health care observed drugs and supplements on the day of the survey

Pharmacy inputs	Ambulatory			Basic		
	N	%	SE	N	%	SE
Packets/envelopes of oral rehydration salt	32	90.6	5.2	5	80	17.9
Ferrous sulfate/zinc sulfate/zinc gluconate	32	96.9	3.1	5	100	
Albendazole/mebendazole	32	93.8	4.3	5	100	
Antibiotics*	2	100		5	100	
Ringer's lactate/Hartmann's solution/saline solution**	n/a	n/a	n/a	5	80	17.9
All inputs observed on the day of the survey	32	81.3	6.9	5	80	17.9

*Antibiotic = amoxicilin / benzathine penicillin / erythromycin (not applicable for health posts)

**Ringer's lactate/Hartmann's solution/saline solution not measured at ambulatory facilities

3.4.2 Continuous availability in the previous three months

In order to measure continuous availability of pharmacy inputs needed for basic child care, interviewers were instructed to check the stock of certain drugs for the previous three months in facilities if that specific drug was observed on the day of the survey. The three month stock-out of oral rehydration packets/envelopes and albendazole/mebendazole were checked at each level of facility. In addition, the stock-out of antibiotics were checked at all facilities except health posts.

As shown in Table 3.4.2, when considering the continuous availability (no stock-out in the previous three months) of certain inputs in addition to the availability of all inputs on the day of the survey, only 40% of basic-level facilities met the requirements. Ambulatory facilities remained at 81.3% for continuous availability of pharmacy inputs with no reported stock-outs in the previous three months.

Table 3.4.2 Child health care observed drugs and supplements stock in previous three months

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Availability of all pharmacy inputs on the day of the survey	32	81.3	6.9	5	80	17.9
Continuous availability of pharmacy inputs in the previous three months*	32	81.3	6.9	5	40	21.9

*Overall pharmacy availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of packets/envelopes of oral rehydration salt + albendazole/mebendazole + antibiotics

3.5 Educational material

Table 3.5.1 lists some educational material observed either as cards handed to the caretaker or as illustration of disease management flowcharts hung on the unit walls. While over 62% of ambulatory units provided printed educational materials, only 1 of the 5 basic units provided these same materials.

Table 3.5.1 Child health education and awareness

Education material	Ambulatory			Basic		
	N	%	SE	N	%	SE
Printed materials on child growth and child development	32	62.5	8.6	5	20	17.9
Printed materials on danger signs and symptoms of children at risk at risk	32	65.6	8.4	5	20	17.9

Chapter 4 VACCINES

4.1 Vaccination services

This chapter summarizes vaccination services, logistics of ordering and receiving supplies, vaccine availability, and cold chain characteristics. When asked about vaccination services, 95% of all health facilities reported that they do vaccinate children. More specifically, 100% of basic and complete and 93.8% of ambulatory facilities responded positively to providing vaccination services to children under 5 years of age. In the observation component of the survey, interviewers first recorded the setting of the room used for immunization and went on to observe related equipment and vaccine stocks in that particular room or area. While the majority of basic and complete facilities provided private rooms for vaccination services, only half (51.6%) of ambulatory facilities provided the same (Table 4.1.1).

Table 4.1.1 Vaccination services

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Unit vaccinates children under 5	32	93.8	4.3	5	100		3	100	
Immunization room									
Private room with visual and auditory privacy	31	51.6	9.0	5	80	17.9	2	100	
Non-private room without auditory or visual privacy	31	32.3	8.4	5	0		2	0	
Visual privacy only	31	3.2	3.2	5	0		2	0	
No privacy	31	6.5	4.4	5	20	17.9	2	0	
Other	31	6.5	4.4	5	0		2	0	

*Immunization room data missing for one complete facility

4.2 Vaccine logistics

4.2.1 Storage

In the questionnaire component of the survey, facilities that provided vaccination services were asked about vaccine storage. All basic- and complete-level facilities and 80% of ambulatory facilities reported storing vaccines within the facility. Ten percent of ambulatory-level facilities picked up vaccines from other facilities and 10% had the vaccines delivered facility when services were being provided (Table 4.2.2). Facilities that stored vaccines in house were then asked logistical questions about the demand and supply of vaccines, as further detailed in the rest of chapter 4.

4.2.2 Demand and supply

All complete facilities and most ambulatory facilities reported self-determination in ordering vaccine supplies, while only 40% of basic-level facilities determined their own vaccine needs. In contrast, 60% of basic facilities had their needs determined elsewhere. Facilities varied in their strategies for timing of vaccine orders, with the majority ordering on a fixed schedule and less often than once a week. Responses from facility representatives about the time it takes to receive orders indicated that supplies

almost always come within a week of ordering, and the quantity always or almost always comes as ordered (Table 4.2.2).

Table 4.2.2 Vaccine demand and supply

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Storage									
Stored in facility	30	80	7.3	5	100		3	100	
Picked up from another facility	30	10	5.5	5	0		3	0	
Delivered when services are being provided	30	10	5.5	5	0		3	0	
None of the above	30	0		5	0		3	0	
Demand and Supply									
Ordering Strategy									
Determines own needs	23	87	7.0	5	40	21.9	3	100	
Need determined elsewhere	23	8.7	5.9	5	60	21.9	3	0	
Both(differ by vaccine)	23	4.3	4.3	5	0		3	0	
DK/DR	1								
Quantity to order strategy									
Order same amount	23	95.7	4.3	5	100		3	100	
Different per vaccine	23	4.3	4.3	5	0		3	0	
Time to order strategy									
Fixed time, >= once/week	23	13	7.0	5	0		3	0	
Fixed time, < once/week	23	65.2	9.9	5	80	17.9	3	66.7	27.2
Order when needed	23	21.7	8.6	5	20	17.9	3	33.3	27.2
Time to receive supplies									
< 1 week	23	91.3	5.9	5	100		3	100	
1-2 weeks	23	4.3	4.3	5	0		3	0	
> 2 weeks	23	4.3	4.3	5	0		3	0	
Reception of quantity ordered									
Always	24	70.8	9.3	5	60	21.9	3	100	
Almost always	24	29.2	9.3	5	40	21.9	3	0	
Almost never	24	0		5	0		3	0	

4.3 Vaccines observed

4.3.1 Vaccine availability on the day of the survey

Table 4.3.1 indicates the percentage of facilities at which at least one unit of a specified vaccine was observed by the surveyors. All basic and complete facilities had MMR, pentavalent, and polio vaccines available on the day of the survey. However, BCG, and pneumococcal conjugate vaccines were much less prevalent. At the ambulatory level, 89.5% of facilities had MMR, pentavalent, and polio vaccines. BCG, and pneumococcal conjugate vaccines were less prevalent at all facilities.

Table 4.3.1 Vaccine stocks observed

Vaccine type	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Pentavalent	16	93.8	6.1	5	100		2	100	
MMR	16	93.8	6.1	5	100		2	100	
Polio	16	93.8	6.1	5	100		2	100	
Rotavirus	16	87.5	8.3	5	80	17.9	2	100	
Pneumococcal conjugate	16	68.8	11.6	5	40	21.9	2	50	35.4
BCG	16	31.3	11.6	5	20	17.9	2	0	
DPT alone	16	81.3	9.8	5	100		2	100	
HepB alone	16	18.8	9.8	5	0		2	0	

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

4.3.2 Continuous availability of vaccines

As previously stated in chapter 3, the indicator related to the continuous supply of equipment needed for child care includes a vaccine component. According to the country indicator manual, all facilities were checked for the availability of MMR, pentavalent, polio, rotavirus, pneumococcal conjugate, and BCG vaccines on the day of the survey. In order to measure continuous availability, interviewers were instructed to check the stock in the previous three months for BCG and MMR at facilities contained those vaccines on the day of the survey.

4.4 Cold chain

4.4.1 Cold chain characteristics

Facilities that either stored vaccines, collected vaccines from other health units, or had vaccines delivered to the unit to be immediately applied were asked more specific questions related to cold chain. Interviewers first observed the type of fridges used to store vaccines. Electric fridges were most common, with 100% of basic and complete facilities and 73.1% of ambulatory facilities owning an electric fridge. Cold boxes were also common at the ambulatory level, with 65.4% of facilities having at least one cold box. Only 20% of basic facilities and 0% of complete facilities reported owning at least one cold box.

Table 4.4.1 Vaccine storage

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Storage									
Electric fridge	24	79.2	8.29	5	100		2	100	
Kerosene fridge	24	0		5	0		2	0	
Gas fridge	24	0		5	0		2	0	
Solar fridge	24	4.2	4.08	5	0		2	0	
Any of the above	24	83.3	7.61	5	100		2	100	

4.4.2 Cold chain indicator

According to the indicator related to cold chain, facilities (health posts, health centers, and primary hospitals) were checked for the availability of a temperature monitoring chart for each fridge, with the temperature monitoring chart being completed twice daily during the previous 30 days.

Forty percent of basic-level and 26.1% of ambulatory-level facilities met the indicator for cold chain managed according to the standards (Table 4.4.2). While over half of all facilities had a temperature monitoring chart for each functional fridge, a much smaller fraction of facilities had recorded the temperature of the fridges twice per day over the last 30 days.

Table 4.4.2 Cold chain indicator

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Cold chain						
Temperature monitoring chart for each functioning fridge	23	56.5	10.3	5	60	21.9
Temperature was recorded twice daily during the last 30 days for each fridge	23	26.1	9.2	5	40	21.9
Cold chain according to standards (meets above criteria)	23	26.1	9.16	5	40	21.91

Chapter 5 FAMILY PLANNING

5.1 Service provision

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

All ambulatory, basic, and complete facilities reported providing family planning services in-facility (Table 5.1.1). Interviewers recorded the setting of the room used for family planning services, finding that all basic- and complete-level units offered private rooms for patients seeking family planning services. At the ambulatory level, the majority (84.4%) offered a private room, while non-private rooms were also found. All facilities reported providing and storing contraceptive methods in-house (Table 5.1.2).

Table 5.1.1 Family planning (FP) services provision

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N*	%	SE
Offers FP services	32	100		5	100		3	100	
FP room									
Private room with visual and auditory privacy	32	84.4	6.4	5	100		2	100	
Non-private room without auditory or visual privacy	32	9.4	5.2	5	0		2	0	
Visual privacy only	32	0		5	0		2	0	
No privacy	32	3.1	3.1	5	0		2	0	
Other	32	3.1	3.1	5	0		2	0	

*Missing family planning room data for one complete facility

Table 5.1.2 Family planning (FP) storage

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
FP Storage									
Yes, stores contraceptives	32	100		5	100		3	100	
No, delivered when services are being provided	32	0		5	0		3	0	

5.2 Observed contraception methods and reported family planning services

5.2.1 Observed contraception methods and reported family planning services in ambulatory facilities

Table 5.2.1 lists the percentage of facilities in which the surveyor observed at least one unit of a specific

contraception method at the time of the survey. Most popular in all facility types were male condoms, pills, and injectables. Spermicide, diaphragms, and implants were not found in any of the evaluated facilities.

In the questionnaire component, facility representatives were asked about the availability of pregnancy tests, trained doctor to perform IUD insertion, trained doctor to perform tubal ligation, and trained doctor to perform vasectomy. All basic and complete facilities both offered pregnancy tests and had a trained doctor on staff to perform tubal ligation. A trained doctor to perform vasectomy was less prevalent at 80% and 50% at basic and complete facilities, respectively. At ambulatory facilities, 59% offered pregnancy tests and 59.4% had a trained doctor to perform IUD insertion on staff.

Table 5.2.1 Observed contraception methods and reported services in basic and complete facilities

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N**	%	SE
Observed FP methods									
Any pill	32	81.3	6.9	5	60	21.9	2	50	35.4
Combined oral pill	32	68.8	8.2	5	60	21.9	2	50	35.4
Progestin-only pill	32	21.9	7.3	5	0		2	0	
Any injectable	32	96.9	3.1	5	100		2	100	
Combined injectable (1 month)	32	90.6	5.2	5	80	17.9	2	100	
Progestin-only injectable (3 months)	32	93.8	4.3	5	100		2	50	35.4
Male condom	32	78.1	7.3	5	80	17.9	2	100	
Female condom	32	0		5	20	17.9	2	0	
IUD*	2	50	35.4	5	80	17.9	2	50	35.4
Spermicide	32	0		5	0		2	0	
Diaphragm	32	0		5	0		2	0	
Emergency contraception pill	32	0		5	0		2	50	35.4
Implant	n/a	n/a	n/a	5	0		2	0	
Reported services									
Offers pregnancy test	39	59	7.9	5	100		2	100	
Trained doctor to perform IUD insertion	32	59.4	8.7	n/a	n/a	n/a	n/a	n/a	n/a
Trained doctor to perform tubal ligation	n/a	n/a	n/a	5	100		2	100	
Trained doctor to perform vasectomy	n/a	n/a	n/a	5	80	17.9	2	50	35.4

*Intrauterine device (not applicable for health posts)

**Missing data for one complete facility

5.3 Composite Family planning indicator

According to the country indicator manual, the composite family planning indicator was measured at ambulatory- and basic-level facilities. Facilities that stored contraceptive methods were checked for continuous availability (no stock-out in the last three months) of male condoms, any pill, and any injectable. With the exception of health posts, surveyors document intrauterine devices at all facilities on the day of the survey and not for stock-out in the previous three months. All inputs were observed in the room or area designated for family planning. In total, 59.5% of ambulatory- and basic-level facilities

met these requirements. The components of this indicator are further broken down by facility classification in Table 5.3.1.

Table 5.3.1 Composite family planning indicator

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Condom	32	78.1	7.4	5	80	20.0
Any pill	32	81.3	7.0	5	60	24.5
Any injectable	32	96.9	3.1	5	100	
Intrauterine device*	2	50	50.0	5	80	20.0
All above methods available on the day of the survey	32	68.8	8.3	5	60	24.5
Continuous availability of FP inputs in the previous three months**	32	59.4	8.8	5	60	24.5

*Intrauterine device not applicable for health posts

**Overall pharmacy availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of condoms + any pill + any injectable

5.4 Teaching and awareness

Table 5.4.1 illustrates the percentage of facilities that promoted family planning through counseling, teaching, and educational graphics posted in the facility. Nearly all facilities provided individual family planning counseling, and the majority of units had family planning posters on the walls of the facility.

Table 5.4.1 Teaching and awareness on family planning and STIs

	Ambulatory				Basic				Complete			
	N	%	SE	DK	N	%	SE	DK	N	%	SE	DK
Individual FP counseling*	32	93.8	4.3	0	5	100		0	3	100		0
Group FP counseling*	31	71	8.1	1	4	75	21.6	1	3	100		0
FP posters on walls of facility**	32	75	7.7	0	5	60	21.9	0	2	100		0
STI/HIV posters on walls of facility**	32	43.8	8.8	0	5	20	17.9	0	2	50	35.4	0

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

**Data for the family planning room missing from one complete facility in the observation module

Chapter 6 ANTENATAL CARE (ANC), DELIVERY, AND POSTPARTUM CARE (PPC)

6.1 Service provision

This chapter summarizes key indicators related to maternal and neonatal health. In the questionnaire component of the survey, facility representatives were asked questions about the provision of specific services related to maternal and neonatal health. In the observation component, interviewers observed the functionality of equipment, the availability of drugs and supplements, and key lab inputs related to the provision of antenatal, delivery, and postpartum care.

All ambulatory facilities reported offering antenatal care services. The antenatal care room, as observed by surveyors, was private with auditory and visual privacy for the majority of ambulatory facilities (90.6%). However, non-private rooms and rooms with visual privacy only were also observed (Table 6.1.1). All basic facilities reported offering antenatal, routine delivery, and postpartum care services. In complete facilities, 66.7% offered antenatal care, and 100% offered routine delivery service and postpartum care. Interviewers observed private rooms with auditory and visual privacy in all facilities (Table 6.1.2).

Table 6.1.1 ANC service provision in ambulatory facilities

	Ambulatory		
	N	%	SE
Offers ANC services	32	100	
ANC room			
Private room with auditory and visual privacy	32	90.6	5.2
Non-private room without auditory or visual privacy	32	3.1	3.1
Visual privacy only	32	3.1	3.1
No privacy	32	3.1	3.1

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

	Basic			Complete		
	N	%	SE	N	%	SE
Offers ANC services	5	100		3	66.7	27.2
Offers routine delivery services (non-urgent)	5	100		3	100	
Offers PPC services	5	100		3	100	
ANC - PPC room						
Private room with auditory and visual privacy	5	100		2	100	
Non-private room without auditory or visual privacy	5	0		2	0	
Visual privacy only	5	0		2	0	
No privacy	5	0		2	0	
Delivery room						
Private room with auditory and visual privacy	5	100		2	100	
Non-private room without auditory or visual privacy	5	0		2	0	
Visual privacy only	5	0		2	0	
No privacy	5	0		2	0	

6.2 Antenatal and postpartum care

6.2.1 Supplies and equipment needed for antenatal and postpartum care

According to the indicator related to the availability of supplies and equipment needed for antenatal and postpartum care, ambulatory facilities were evaluated for the presence of certain functional equipment and basic-level facilities were evaluated for both functional equipment and laboratory inputs. Although the broad components are listed in Table 6.2.1, specific equipment and laboratory inputs are further detailed in sections 6.2.2 and 6.2.3. In total, 10.8% of facilities met this requirement: 12.5% of ambulatory health units and 0% of basic health units.

Table 6.2.1 Indicator for supplies and equipment needed for antenatal and postpartum care

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Observed and functional equipment	32	12.5	5.8	5	0	
Observed and functional laboratory inputs	n/a	n/a	n/a	5	40	21.9
Indicator according to the norm (meets criteria listed above)	32	12.5	5.8	5	0	

6.2.2 ANC - PPC equipment

In the observation component of the survey, interviewers checked for certain equipment in the room or areas designated for antenatal and postpartum care. Table 6.2.1 indicates the percentage of facilities where specific ANC/PPC equipment was present and observed as functional by a surveyor at the time of the survey. According to the indicator relating to the continuous availability of supplies and equipment necessary for antenatal and postpartum care, certain equipment is required depending on facility type (see Table 6.2.2).

Health posts (ambulatory): standing scales + stadiometer + gynecological exam table + CLAP obstetrical tape + gooseneck lamp + blood pressure apparatus + stethoscope + gestogram + oral/axillary thermometer

Health centers without hospitalization (ambulatory): standing scales + stadiometer + gynecological exam table + CLAP obstetrical tape + gooseneck lamp + blood pressure apparatus + stethoscope + IUD insertion kit + gestogram + oral/axillary thermometer

Health centers with hospitalization and primary hospitals (basic): standing scales + stadiometer + gynecological exam table + CLAP obstetrical tape + gooseneck lamp + blood pressure apparatus + stethoscope + IUD insertion kit + gestogram

Only four ambulatory facilities (12.5%) had all required equipment observed and functional on the day of the survey. None of the basic-level facilities met these requirements. Most prevalent in both ambulatory and basic facilities were standing scales, gynecological exam table, and blood pressure apparatus. Less prevalent in ambulatory facilities were hand lamps, stadiometers, and thermometers. In

basic facilities, less than half had gestograms, IUD insertion kits, or obstetrical tape.

Table 6.2.2 Observed and functional ANC - PPC equipment by facility classification

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Standing scales	32	90.6	5.2	5	80	17.9
Stadiometer	32	56.3	8.8	5	60	21.9
Gynecological exam table	32	90.6	5.2	5	100	
CLAP obstetrical tape	32	81.3	6.9	5	40	21.9
Gooseneck lamp	32	53.1	8.8	5	80	17.9
Blood pressure apparatus	32	87.5	5.8	5	100	
Stethoscope	32	84.4	6.4	5	100	0.0
IUD insertion kit*	2	0		5	20	17.9
Gestogram	32	81.3	6.9	5	20	17.9
Oral/axillary thermometer**	32	68.8	8.2	n/a	n/a	n/a
All equipment observed and functional	32	12.5	5.8	5	0	

*Not applicable for health posts

**Not applicable for basic facilities

6.2.3 ANC - PPC important laboratory and pharmacy inputs

According to the indicator related to the availability of supplies and equipment needed for antenatal and postpartum care, basic facilities were evaluated for the availability of certain laboratory inputs which are displayed in Table 6.2.3. While all basic facilities had a glucose meter/blood glucose strips, HemoCue /automated cell counter, and urinalysis equipment/urine protein strips, about 60% had equipment needed to test for HIV/AIDS or syphilis. In total, 40% of basic-level facilities had all laboratory equipment available on the day of the survey (Table 6.2.3).

Table 6.2.3 ANC - PPC laboratory inputs

Laboratory inputs	Basic		
	N	%	SE
Blood glucose strips/glucose meter	5	100	
HemoCue/automated cell counter	5	100	
Rapid HIV/AIDS test/fluorescence microscope	5	60	21.9
Rapid syphilis test/dark field microscope/enzyme immunoassay kit	5	60	21.9
Urine protein strips/urinalysis equipment	5	100	
All lab equipment observed	5	40	21.9

In the pharmacy observation section, interviewers checked for the availability of important supplies and medications related to maternal health. Table 6.2.4 indicates the percentage of facilities where specific

medications related to antenatal were available at the time of the survey. Certain pharmacy inputs were observed depending on facility type. The stock of tetanus vaccine was also observed, although only 25% of ambulatory units and 0% of basic units had it available on the day of the survey. In general, ambulatory facilities were better stocked than basic facilities with the pharmacy inputs observed for maternal health.

Table 6.2.4 Antenatal and postpartum care pharmacy inputs by facility classification

Pharmacy inputs	Ambulatory			Basic		
	N	%	SE	N	%	SE
Ayre's spatula	n/a	n/a	n/a	5	0	
Folic Acid	32	75	7.7	5	60	21.9
Iron	32	90.6	5.2	5	80	17.9
Tetanus vaccine	32	28.1	7.9	5	0	
All inputs observed on the day of the survey	32	25	7.7	5	0	

6.3 Supplies and equipment needed for delivery

In the room designated for delivery, interviewers checked for certain supplies and equipment in basic and complete facilities. Table 6.3.1 lists the percentage of facilities that had important equipment for delivery care observed and functional by a surveyor on the day of the survey.

Table 6.3.1 Equipment needed for delivery care

Equipment type	Basic			Complete		
	N	%	SE	N	%	SE
Intravenous catheter sterile N ° 18	5	80	17.9	2	0	
Metallic Clamp or umbilical tape	5	100		2	50	35.4
Equipment p/serum c /macro drip and microdrip	5	100		2	50	35.4
Nasogastric tube K 33	5	20	17.9	2	50	35.4
Sterile fields or sheltering for a baby	5	60	21.9	2	50	35.4

Interviewers also observed the availability of certain drugs important for delivery and newborn care in the pharmacy section (Table 6.3.2).

Table 6.3.2 Pharmacy inputs needed for delivery care

Pharmacy inputs	Basic			Complete		
	N	%	SE	N	%	SE
Hyoscine bromide/Butylhyoscine	5	80	17.9	2	0	
Plastic clamp or umbilical tape	5	20	17.9	2	0	
Ergonovine maleate/Ergometrine/ Oxytocin	5	100		2	100	
Chloramphenicol eye drops /1% silver nitrate	5	60	21.9	2	0	
Povidone-iodine	5	0		2	0	
Ringer's lactate/Hartmann's solution/ saline solution	5	80	17.9	2	100	
S lidocaine/S epinephrine	5	100		2	100	
C/mounted needle syringe (syringe insulin)	5	0		2	0	
Vitamin K 1 mg	5	60	21.9	2	50	35.4

6.4 Delivery medical record review

During the review of delivery medical records in basic and complete facilities, interviewers recorded administration of 10 IU of intramuscular oxytocin after deliveries for women who gave birth in the last two years. Of those records, 96.7% reported the administration of oxytocin or another uterotonic after delivery.

6.5 Essential obstetric and neonatal care

6.5.1 Supplies and equipment needed for essential obstetric and neonatal care

In the health facility survey observation module, interviewers checked availability and functionality of inputs in designated room. Table 6.5.1 lists the percentage of facilities that had certain equipment available and functioning, as observed by a surveyor, on the day of the survey.

Table 6.5.1 Observed and functional equipment for EONC

Equipment type	Basic			Complete		
	N	%	SE	N	%	SE
Autoclave (or dry heat sterilizer)	5	20	17.9	2	0	
Blood pressure apparatus	5	80	17.9	2	100	
Laryngoscope	5	40	21.9	2	50	35.4
Basic curettage equipment/MVA equipment*	5	100		2	50	35.4
Oxygen tank	5	60	21.9	2	50	35.4
Portable Doppler (or Pinard stethoscope)	5	40	21.9	2	0	
Adult resuscitation bag	5	40	21.9	2	50	35.4
Neonatal resuscitation bag	5	40	21.9	2	50	35.4
Stethoscope	5	80	17.9	2	100	

*Basic curettage equipment was measured at basic facilities & MVA equipment was measured at complete facilities

6.5.2 Important drugs needed for essential obstetric and neonatal care

According to the indicator related to essential obstetric and neonatal care, health centers with hospitalization and primary hospitals were evaluated for continuous availability (no stock-out in the previous three months) of certain drugs (see Table 6.5.2). Basic facilities should have: dexamethasone or betamethasone, crystalline penicillin or ampicillin or amoxicillin or cephalexin or nitrofurantoin, magnesium sulfate, ergonovine maleate or ergometrine or oxytocin, hydralazine ampoules, and gentamicin.

In addition to observing the input on the day of the survey, interviewers were instructed to also check stock in the previous three months of dexamethasone/betamethasone, gentamicin, magnesium sulfate, and oxytocin/ergometrine/ergonovine maleate. Of basic facilities that provide essential obstetric and neonatal care, 60% had all drugs available on the day of the survey and had no recorded stock-out in the previous three months (Table 6.5.2).

Table 6.5.2 Drugs needed for essential and neonatal care in basic-level facilities

Drug availability	Basic		
	N	%	SE
Dexamethasone/betamethasone	5	100	
Ergonovine maleate or ergometrine or oxytocin	5	100	
Gentamicin	5	80	17.9
Hydralazine ampoules	5	80	17.9
Magnesium sulfate	5	80	17.9
Antibiotics*	5	100	
Continuous availability of drugs in the previous three months**	5	60	21.9

*Antibiotics = crystalline penicillin / ampicillin / amoxicillin / cephalexin / nitrofurantoin

**Overall drug availability including availability of all inputs on the day of the survey and no-stock out in the previous three months of dexamethasone/betamethasone + ergonovine maleate/ergometrine/oxytocin + gentamicin + magnesium sulfate

Chapter 7 MATERNITY HOMES

7.1 Health facility relationship with maternity homes

This chapter summarizes health facility connections with maternity homes, and women housed in maternity homes with access to educational trainings and family planning methods. In the questionnaire component of the survey, facility representatives were asked questions about the relationship between the health unit and maternity homes. All basic and complete facilities and 96.9% of ambulatory facilities reported having a connection with a maternity home. However, none of the complete facilities and only 32.3% of ambulatory facilities that reported having a relationship with a maternity home had a registry or report about women placed in maternity homes in the last year. All basic facilities reported having this registry/report, but only 40% could provide it for observation (Table 7.1.1).

Table 7.1.1 Health facility relationship with maternity homes

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Health facility has connection with maternity homes	32	96.9	3.1	5	100		3	100	
Health facility has report/registry about women placed in maternity homes for the last year	31	32.3	8.4	5	100		3	0	
Report/registry about women placed in maternity homes for the last year is observed*	10	90	9.5	5	40	21.9	n/a	n/a	n/a

*Asked only if a health facility has a report/registry about women placed in maternity homes for the last year

7.2 Educational materials and training for women housed in maternity homes

Surveyors only measured the number of women who, in the last year, were housed at a maternity home, at health facilities where a report/registry was observed. Among those seven facilities who had reported the number of women housed, a total of 583 women were registered.

Interviewers observed the report/registry for record of specific trainings given at these maternity homes. Only 3 facilities had record of pregnancy, newborn, breastfeeding, nutrition, or family planning training. In total, 16 women out of the total of 583 registered women had record of training in each of the aforementioned categories.

Table 7.2.1 Women with access to educational materials and training

	# of facilities with record of training	# of trained women	% of women with recorded training
Pregnancy care training	3	16	2.74
Newborn care training	3	16	2.74
Breastfeeding training	3	16	2.74
Nutrition training	3	16	2.74
Family Planning training	3	16	2.74

7.3 Maternity homes and family planning

In the medical record review component of the survey, records of women who stayed in maternity homes in the previous 18 months were selected systematically and reviewed. Surveyors reviewed these records and found that 38.3% of women had adopted a family planning methods within 40 days of giving birth.

Table 7.3.1 Women housed in maternity homes and adopted family planning method

	N	%	SE
Women housed in maternity homes who adopted family planning method within 40 days of giving birth	47	38.3	7.1

Chapter 8 INFECTION CONTROL

8.1 Equipment for disposal and disposal methods

8.1.1 Equipment for disposal

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

Table 8.1.1 Equipment for disposal

	Ambulatory				Basic				Complete			
	N	%	SE	DK/DR	N	%	SE	DK/DR	N	%	SE	DK/DR
Incinerator at facility	32	46.9	8.8	0	5	80	17.9	0	3	66.7	27.2	0
Manual for decontamination*	29	20.7	7.5	3	5	100		0	3	100		0

*Missing data for three ambulatory facilities

8.2 Decontamination and sterilization

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

Table 8.2.1 Decontamination and sterilization

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Decontamination methods									
Submerged in disinfectant, then scrubbed with a brush, soap and water	32	31.3	8.2	5	40	21.9	3	33.3	27.2
Scrubbed with a brush, soap and water, then submerged in disinfectant	32	12.5	5.8	5	60	21.9	3	0	
Scrubbed with a brush, soap and water only	32	15.6	6.4	5	0		3	0	
Submerged in disinfectant, without scrubbing with brush	32	21.9	7.3	5	0		3	0	
Cleaned with water and soap, without scrubbing with a brush	32	9.4	5.2	5	20	17.9	3	0	
Equipment never reused	32	9.4	5.2	5	0		3	33.3	27.2
Other	32	6.3	4.3	5	0		3	33.3	27.2
Sterilization methods									
Dry heat	32	6.3	4.3	5	0		3	0	
Autoclave	32	34.4	8.4	5	100		3	100	
Boiling	32	3.1	3.1	5	0		3	0	
Steam	32	3.1	3.1	5	0		3	0	
Chemical sterilization	32	9.4	5.2	5	0		3	0	
Processed away from facility	32	37.5	8.6	5	0		3	0	
Facility doesn't sterilize	32	6.3	4.3	5	0		3	0	
Other	32	3.1	3.1	5	0		3	0	

Appendix A: SM2015 Indicators

Table A.1 Indicator matrix

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

SM2015 Indicators	N	%	SE
Health facilities with continuous availability of supplies and equipment needed for child care, immunization and nutrition	37	0	
Number of health facilities that have cold chain according to the norms	28	28.6	8.5
Health facilities that have supplies of modern family planning methods (oral, injectable, barrier, IUD)	37	59.5	8.1
Health facilities with continuous availability of supplies and equipment needed for antenatal and postpartum care	37	10.8	5.1
Health Facilities with continuous availability of supplies and equipment needed for essential obstetric and neonatal care	5	60	21.9
Management of third stage of delivery	90	96.7	1.9
Women with obstetric complications (sepsis, hemorrhage, severe pre-eclampsia and eclampsia) managed according to the norm in the last two years for monitoring purposes	113	4.4	1.9
Neonates with complications (low birth weight, prematurity, birth asphyxia and sepsis) managed according to standards in hospitals in the last two years for monitoring purposes	119	0	
Women of reproductive age (15-49) who received ≥ 4 ANC visits by qualified personnel according to best practices for a birth in the last two years for monitoring purposes	135	20.7	3.5
Women of reproductive age (15-49) who received their first prenatal care visit by qualified personnel before 12 weeks gestation in the last two years for monitoring purposes	135	24.4	3.7
Proportion of births in the last two years that used a partograph for monitoring purposes	90	87.8	3.5
Health centers with socio-cultural services for monitoring purposes*	3	100	
Neonates who received care according to standards from medical personnel within the first 48 hours after birth in the last 2 years for monitoring purposes**	71	7.0	3.0
Proportion of women who received family planning (sterilization, IUD, condoms, injectable) after birth in the last two years for monitoring purposes***	74	47.3	5.8

*Restricted to centros de salud sin cama and centros de salud con cama (excluding puestos de salud, hospitals)

**The value represented excludes the criteria of timing (within 24 hours), check of cardiac frequency, and the neonate being attended by a doctor/nurse/midwife due to a program error

***Removed from the denominator are 3 cases where women were referred to another facility for a family planning method. Injectable was not specifically asked in the baseline survey, but rather specified as an "other method" option

A.2 Indicator Definitions

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

Denominator:

Total number of health units (health posts, primary health centers, primary hospitals) that provide child care in the sample.

Formula:

Ambulatory (health posts): Observe the following on the day of the survey: pediatric scale/balance + stadiometer + stethoscope + oral/axillary thermometer + growth and development card + ferrous sulfate/zinc sulfate/zinc gluconate + pentavalent (Hepb + DPT) vaccine + polio vaccine + rotavirus vaccine + pneumococcal conjugate vaccine. No break in supply of the following inputs in the last three months (including the day of the survey): packets/envelopes of oral rehydration salt + albendazole/mebendazole + BCG vaccine + MMR vaccine

Ambulatory (health centers): Observe the following on the day of the survey: pediatric scale/balance + stadiometer + stethoscope + pediatric stethoscope + oral/axillary thermometer + growth and development card + ferrous sulfate/zinc sulfate/zinc gluconate + pentavalent (Hepb + DPT) vaccine + polio vaccine + rotavirus vaccine + pneumococcal conjugate vaccine. No break in supply of the following inputs in the last three months (including the day of the survey): packets/envelopes of oral rehydration salt + albendazole/mebendazole + antibiotics (amoxicillin/benzathine penicillin/erythromycin) + BCG vaccine + MMR vaccine

Basic: Observe the following on the day of the survey: pediatric scale/balance + stadiometer + stethoscope + pediatric stethoscope + oral/axillary thermometer + growth and development card + ferrous sulfate/zinc sulfate/zinc gluconate + Ringer's lactate/Hartmann's solution/saline solution + pentavalent (Hepb + DPT) vaccine + polio vaccine + rotavirus vaccine + pneumococcal conjugate vaccine. No break in supply of the following inputs in the last three months (including the day of the survey): packets/envelopes of oral rehydration salt + albendazole/mebendazole + antibiotics (amoxicillin/benzathine penicillin/erythromycin) + BCG vaccine + MMR vaccine

2. Number of health facilities that have cold chain according to the norms:

Denominator:

Total number of health units (health posts, primary health centers, primary hospitals) that store vaccines in the sample.

Formula:

All facilities: temperature was observed on the day of the survey for each functioning refrigerator + temperature for each refrigerator operating temperature was recorded twice daily in the last 30 days

3. Health facilities that have supplies of modern family planning methods (oral, injectable, barrier, IUD)

Denominator:

Total number of health units (health posts, primary health centers, primary hospitals) that store family planning methods in the sample.

Formula:

Ambulatory (health posts): 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

Ambulatory (health centers): Observed on the day of the survey: IUD. 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 (primary hospitals): Observed on the day of the survey: IUD. 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

4. Health facilities with continuous availability of supplies and equipment needed for antenatal and postpartum care

Denominator:

Total number of health units (health posts, primary health centers, primary hospitals) that provide antenatal and postpartum care (and a laboratory in basic facilities) in the sample.

Formula:

Ambulatory (health post): Observed on the day of the survey: standing scales + stadiometer + gynecological exam table + CLAP obstetrical tape/metric tape + gooseneck lamp + blood pressure apparatus + stethoscope + gestogram + oral/axillary thermometer

Ambulatory (health center): Observed on the day of the survey: standing scales + stadiometer + gynecological exam table + CLAP obstetrical tape/metric tape + gooseneck lamp + blood pressure apparatus + stethoscope + IUD insertion kit + gestogram + oral/axillary thermometer

Basic: Observed on the day of the survey: standing scales + stadiometer + gynecological exam table + CLAP obstetrical tape/metric tape + gooseneck lamp + blood pressure apparatus + stethoscope + IUD insertion kit + gestogram + blood glucose strips/glucose meter + HemoCue/automated cell counter + rapid HIV/AIDS test/fluorescence microscope + rapid syphilis test/dark field microscope/enzyme immunoassay kit + urine protein strips/urinalysis equipment

5. Health facilities with continuous availability of supplies and equipment needed for essential obstetric and neonatal care:

Denominator:

Total number of basic health units in the sample that provide care.

Formula:

Basic: Observe the following on the day of the survey: hydralazine ampoules 20mg + antibiotics (crystalline penicillin/ampicillin 1 g. IV/amoxicillin/cephalexin/nitrofurantoin 100mg). No break in supply of the following inputs in the last three months (including the day of the survey): dexamethasone/betamethasone + gentamicin 8-mg amp + magnesium sulfate 10% + ergonovine maleate 0.2mg/ergometrine ampoules 0.2mg/oxytocin 5 IU/10IU.

6. Management of third stage of delivery:

Denominator:

Total number of birth records in the sample.

Formula:

All records: oxytocin or another uterotonic was administered after delivery

7. Women with obstetric complications (sepsis, hemorrhage, severe pre-eclampsia and eclampsia) managed according to the norm in the last two years for monitoring purposes

Denominator:

Total number of maternal complications records in the sample.

Formula:

Hemorrhage:

Basic: Observe the following in the record: vital signs checked (pulse + diastolic blood pressure + systolic blood pressure) + correct treatment was given (oxytocin/other uterotonic administered + Ringer's lactate administered) + woman was transferred to another facility

Complete: Observe the following in the record: vital signs checked (pulse + diastolic blood pressure + systolic blood pressure) + lab tests performed (PT + PTT + Hb + Ht + platelet count) + cause of hemorrhage + correct treatment was given (oxytocin/other uterotonic was administered + Cesarean section or hysterectomy if woman has placenta previa/premature placental abruption/uterine rupture/ectopic pregnancy + laparotomy if woman has uterine atony/ectopic pregnancy + repair/suture if woman has cervical tears/tears in vaginal canal)

Pre-eclampsia:

Basic: Observe the following in the record: vital signs checked (diastolic blood pressure + systolic blood pressure) + lab tests performed (protein in urine) + correct treatment was given (magnesium sulfate was administered + hydralazine/nifedipine if diastolic blood pressure > 110)

Complete: Observe the following in the record: vital signs checked (pulse + diastolic blood pressure + systolic blood pressure + reflexes + respiratory rate) + lab tests performed (protein in urine + platelet count + aspartate transaminase + alanine aminotransferase + lactate dehydrogenase) + betamethasone/dexamethasone if gestational age is between 26-34 weeks) + outcome is recorded

Eclampsia:

Basic: Observe the following in the record: vital signs checked (systolic blood pressure + diastolic blood pressure) + lab tests performed (protein in urine + correct treatment was given (magnesium sulfate was

administered + hydralazine/nifedipine if diastolic blood pressure > 110)

Complete: Observe the following in the record: vital signs checked (pulse + diastolic blood pressure + systolic blood pressure + reflexes + respiratory rate) + lab tests performed (protein in urine + platelet count + aspartate transaminase + alanine aminotransferase + lactate dehydrogenase) + betamethasone/dexamethasone if gestational age is between 26-34 weeks) + outcome is recorded

Sepsis:

Basic: Observe the following in the record: vital signs checked (temperature + pulse + systolic blood pressure + diastolic blood pressure) + lab tests performed (leukocyte count) + antibiotic administration + woman was transferred to another facility

Complete: Observe the following in the record: vital signs checked (temperature + pulse + systolic blood pressure + diastolic blood pressure) + antibiotic administration + correct treatment was given (manual vacuum aspiration or revision of uterus if woman has a septic abortion and corion remains infected + hysterectomy if woman has uterine perforation + laparotomy if woman has uterine perforation/abscesses/infected ectopic pregnancy+ surgical repair if woman has tear in the vaginal canal)

8. Neonates with complications (low birth weight, prematurity, birth asphyxia and sepsis) managed according to standards in hospitals in the last two years for monitoring purposes

Denominator:

Total number of neonatal complication records in the sample.

Formula:

Low birth weight:

Basic: Observe the following in the record: gestational age + method used to determine gestational age + vital signs checked (weight + head circumference + skin color + pulse + respiratory rate + abdominal examination + Silverman score) + lab tests performed (oxygen saturation level + blood glucose level) + baby was evaluated by a doctor at admission + baby was referred/transferred to another facility

Complete: Observe the following in the record: vital signs checked (pulse + respiratory rate + Silverman score) + lab tests performed (oxygen saturation level + blood glucose level) + baby was evaluated by a doctor at admission + correct treatment was given (oxygen mask/oxygen hood/oxygen CAAP/mechanical ventilation/stay in incubator + intravenous feeding if respiratory rate > 80)

Prematurity:

Basic: Observe the following in the record: gestational age + method used to determine gestational age + vital signs checked (weight + head circumference + skin color + pulse + respiratory rate + abdominal examination + Silverman score) + lab tests performed (oxygen saturation level + blood glucose level) + baby was evaluated by a doctor at admission + baby was referred/transferred to another facility

Complete: Observe the following in the record: vital signs checked (pulse + respiratory rate + Silverman score) + lab tests performed (oxygen saturation level + blood glucose level) + baby was evaluated by a doctor at admission + correct treatment was given (oxygen mask/oxygen hood/oxygen CAAP/mechanical ventilation/stay in incubator + intravenous feeding if respiratory rate > 80)

Asphyxia:

Basic: Observe the following in the record: gestational age + vital signs checked (temperature + skin color + pulse + respiratory rate + Apgar score at 1 or 5 minutes) + lab tests performed (Hb + blood glucose level) + baby was evaluated by a doctor at admission + correct treatment was given (secretion suctioning if baby has meconium + positive pressure ventilation/100% oxygen if baby has apnea)

Complete: Observe the following in the record: vital signs checked (pulse + respiratory rate) + lab tests performed (oxygen saturation level + blood glucose level + Hb + c-reactive protein + erythrocyte sedimentation rate + chest radiograph) + baby was evaluated by a doctor at admission + correct treatment was given (antibiotic administered + oxygen mask/oxygen hood/oxygen CAAP/mechanical ventilation/stay in incubator)

Sepsis:

Basic: Observe the following in the record: gestational age + vital signs checked (temperature + pulse + respiratory rate + skin color + abdominal examination + distal coldness) + lab tests performed (leukocyte count + neutrophil morphology + platelet count + blood glucose level) + baby was evaluated by a doctor at admission + antibiotic administered + baby was referred/transferred to another facility

Complete: Observe the following in the record: vital signs checked (temperature + pulse) + lab tests performed (oxygen saturation level + leukocyte count + c-reactive protein + erythrocyte sedimentation rate) + baby was evaluated by a doctor at admission + antibiotic administered

9. Women of reproductive age (15-49) who received ≥ 4 prenatal care visits by qualified personnel according to best practices in birth in the last two years for monitoring purposes

Denominator:

Total number of antenatal care records in the sample.

Formula:

Ambulatory: Observe the following in the record: woman had at least 4 ANC visits, each with the following: doctor/nurse + checks performed (weight + blood pressure + fundal height) + fetal checks if gestational age is more than 20 weeks. Lab tests performed at least once: blood type + Rh factor + blood glucose level + VDRL + hemoglobin level + urinalysis.

Basic: Observe the following in the record: woman had at least 4 ANC visits, each with the following: doctor/nurse + checks performed (weight + blood pressure + fundal height) + fetal checks if gestational age is more than 20 weeks. Lab tests performed at least once: blood type + Rh factor + blood glucose level + VDRL + hemoglobin level + urinalysis.

10. Women of reproductive age (15-49) who received their first prenatal care visit by qualified personnel before 12 weeks gestation in the last two years for monitoring purposes

Denominator:

Total number of antenatal records in the sample

Formula:

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

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

11. Proportion of births in the last two years that used a partograph for monitoring purposes

Denominator:

Total number of delivery records in the sample

Formula:

Basic: Partograph is included and filled out

Complete: Partograph is included and filled out

12. Health centers with socio-cultural services for monitoring purposes

Denominator:

Total number of health facilities in the sample

Formula:

Health center: Health facility self-reports adapting services to the sociocultural conditions of women

13. Neonates who received care according to standards from medical personnel within the first 48 hours after birth in the last 2 years for monitoring purposes

Denominator:

Total number of postpartum records in the sample

Formula:

Basic: Vital signs checked (Apgar score in 1 or 5 minutes + respiratory rate + weight + height + head circumference + evaluation of malformations presence) + umbilical cord cleaned with water and chlorhexidine + vitamin K administered + ophthalmic oxytetracycline as prophylaxis/chloramphenicol administered + BCG vaccine administered

Complete: Vital signs checked (Apgar score in 1 or 5 minutes + respiratory rate + weight + height + head circumference + evaluation of malformations presence) + umbilical cord cleaned with water and chlorhexidine + vitamin K administered + ophthalmic oxytetracycline as prophylaxis/chloramphenicol administered + BCG vaccine administered

14. Proportion of women who received family planning (sterilization, IUD, condoms, injectable) after birth in the last 2 years for monitoring purposes

Denominator:

Total number of postpartum records in the sample

Formula:

Basic: condom/IUD/tubal ligation/injection was the method of contraception received

Complete: condom/IUD/tubal ligation/injection was the method of contraception received

Appendix B: Control-Area Tables

Table B2.1.1 Types of facilities

Classification	Facility type	No. of facilities
Ambulatory	Health post	21
	Health center without beds	2
Basic	Health center with beds	1
Total	3	24

Table B2.1.2 Geographical representation

Department	Municipality	No. of facilities
Chontales	El Ayote	1
Jinotega	Jinotega	16
Madriz	San Juan Del Rio Coco	5
	Telpaneca	2
Total	4	24

Table B2.1.3 Number of medical records by facility classification (EONC level)

Medical records	Ambulatory	Basic	Total
Antenatal care	235	12	247
Delivery	0	12	12
Postpartum	0	12	12
Maternal complications	0	25	25
Neonatal complications	0	18	18
Maternity homes	0	0	0
Total	235	79	314

Table B2.2.1 Electricity and water

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Functional electricity	23	95.7	4.3	1	100	
DK/DR	0			0		
Source of electricity						
Central supply (Comisión Federal de Electricidad)	22	90.9	6.1	1	100	
Private supply	22	4.5	4.4	1	0	
In-facility generator	22	9.1	6.1	1	0	
Solar generator	22	9.1	6.1	1	0	
Other source	22	9.1	6.1	1	0	
DK/ DR	0			0		
Source of water						
Piped into facility	23	69.6	9.6	1	0	
Public well	23	13	7.0	1	0	
Facility well	23	4.3	4.3	1	0	
Unprotected well	23	4.3	4.3	1	0	
Hand pump	23	0		1	0	
Bottled water	23	4.3	4.3	1	0	
Tanker truck	23	0		1	0	
Rain water	23	0		1	0	
Other	23	17.4	7.9	1	100	
DK/ DR	0			0		

Table B2.3.1 Personnel composition by facility classification

Personnel type	Ambulatory			Basic		
	N	mean	SE	N	mean	SE
General physician	23	0.9	2.6	1	4	n/a
Pediatrician	23	0	0.2	1	2	n/a
Nutritionist	23	0		1	0	n/a
Pharmacist	21	0	0.2	1	0	n/a
Nurse	23	1	1.7	1	10	n/a
Auxiliary nurse	23	1.2	2.1	1	16	n/a
Midwife	22	0.1	0.6	1	0	n/a
Social worker	23	0.2	0.5	1	0	n/a
Laboratory technician	22	0.2	0.6	1	2	n/a
Health promoter	22	0.8	3.2	1	0	n/a
Other	17	0.1	0.3	1	0	n/a
Internist	23	0	0.2	1	1	n/a
Gynecologist	23	0	0.2	1	1	n/a
Surgeon	23	0		1	1	n/a
Anesthesiologist	23	0	0.2	1	0	n/a
Emergency medical technician	23	0		1	0	n/a
Radiology technician	23	0		1	0	n/a
Ambulance driver/polyvalent	23	0.4	1.1	1	2	n/a

Table B3.1.1 Child health care service provision by facility classification

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Unit offers child services	23	100		1	100	
Child care room						
Private room with visual and auditory privacy	21	76.2	9.3	1	100	
Non-private room without auditory nor visual privacy	21	19	8.6	1	0	
No privacy	21	4.8	4.7	1	0	

Table B3.2.1 Continuous availability of supplies and equipment needed for child care

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Observed and functional equipment	21	4.8	4.7	1	0	
Continuous availability of pharmacy inputs	21	85.7	7.6	1	100	
Continuous availability of vaccines*	17	5.9	5.7	1	0	
Meets all criteria listed above	21	0		1	0	

* Only applicable if facility stored vaccines

Table B3.3.1 Child health care equipment observed and functional by facility type

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Pediatric balance or scale	22	90.9	6.1	1	100	
Tallimeter or stadiometer	22	86.4	7.3	1	0	
Stethoscope	22	40.9	10.5	1	100	
Pediatric stethoscope*	22	4.5	4.4	1	0	
Oral/axillary thermometer	22	13.6	7.3	1	0	
Growth card	22	90.9	6.1	1	0	
All equipment observed and functional	22	4.5	4.4	1	0	

*Health posts were not required to have pediatric stethoscopes

Table B3.4.1 Child health care observed drugs and supplements on the day of the survey

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Packets/envelopes of oral rehydration salt	23	91.3	5.9	1	100	
Ferrous sulfate/zinc sulfate/zinc gluconate	23	100		1	100	
Albendazol/mebendazole	23	100		1	100	
Antibiotics*	2	100		1	100	
Ringer's lactate/Hartmann's solution/saline solution	n/a	n/a	n/a	1	100	
All inputs observed on the day of the survey	23	91.3	5.9	1	100	

*Antibiotics = amoxicillin / erythromycin / benzathine penicillin (not applicable for health posts)

Table B3.4.2 Child health care observed drugs and supplements stock in previous three months

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Availability of all pharmacy inputs on the day of the survey	23	91.3	5.9	1	100	
Continuous availability of pharmacy inputs in the previous 3 months*	23	82.6	7.9	1	100	

*Overall pharmacy availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of packets/envelopes of oral rehydration salt + albendazole/mebendazole + antibiotics

Table B3.5.1 Child health education and awareness

Education material	Ambulatory			Basic		
	N	%	SE	N	%	SE
Printed materials on child growth and child development	21	42.9	10.8	1	0	
Printed materials on danger signs and symptoms of children at risk	21	42.9	10.8	1	0	

Table B4.1.1 Vaccination services

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Unit vaccinates children under 5	23	95.7	4.3	1	100	
Immunization room						
Private room with visual and auditory privacy	20	20	8.9	1	100	
Non-private room without auditory or visual privacy	20	70	10.3	1	0	
No privacy	20	5	4.9	1	0	
Don't provide such services	20	5	4.9	1	0	
Other	31	6.5	4.4	5	0	

Table B4.2.2 Vaccine demand and supply

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Storage						
Stored in facility	22	77.3	8.9	1	100	
Picked up from another facility	22	9.1	6.1	1	0	
Delivered when services are being provided	22	9.1	6.1	1	0	
None of the above	22	4.5	4.4	1	0	
Demand and Supply						
Ordering Strategy						
Determines own needs	17	82.4	9.3	1	100	
Need determined elsewhere	17	11.8	7.8	1	0	
Both(differ by vaccine)	17	5.9	5.7	1	0	
DK/DR	1					
Quantity to order strategy						
Order same amount	17	88.2	7.8	1	100	
Different per vaccine	17	11.8	7.8	1	0	
Time to order strategy						
Fixed time, >= once/week	17	5.9	5.7	1	0	
Fixed time, < once/week	17	47.1	12.1	1	100	
Order when needed	17	47.1	12.1	1	0	
Time to receive supplies						
< 1 week	17	100		1	100	
1-2 weeks	17	0		1	0	
> 2 weeks	17	0		1	0	
Reception of quantity ordered						
Always	17	82.4	9.3	1	100	
Almost always	17	17.6	9.3	1	0	
Almost never	17	0		1	0	

Table B4.3.1 Vaccine stocks observed

Vaccine type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Pentavalent*	19	94.7	5.1	1	100	
MMR	19	89.5	7.0	1	100	
Polio	19	78.9	9.4	1	100	
Influenza	19	31.6	10.7	1	100	
Rotavirus	19	94.7	5.1	1	100	
Pneumococcal conjugate	19	68.4	10.7	1	0	
BCG	19	36.8	11.1	1	0	
DPT alone	19	94.7	5.1	1	100	
HepB alone	19	5.3	5.1	1	0	

*Pentavalent= DPT, HepB, Hib; MMR = measles, mumps, rubella

Table B4.4.1 Vaccine storage

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Storage						
Electric fridge	22	77.3	8.9	1	100	
Kerosene fridge	22	0		1	0	
Gas fridge	22	0		1	0	
Solar fridge	22	0		1	0	
Cold box	22	77.3	8.9	1	0	
Any of the above	22	90.9	6.1	1	100	

Table B4.4.2 Cold chain indicator

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Cold chain						
Temperature monitoring chart for each functioning fridge	18	77.8	9.8	1	0	
Temperature was recorded twice daily during the last 30 days for each fridge	18	44.4	11.7	1	0	
Cold chain according to standards (meets above criteria)	18	44.4	11.7	1	0	

Table B5.1.1 Family planning (FP) services provision

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Offers FP services	23	100		1	100	
FP room						
Private room with visual and auditory privacy	22	81.8	8.2	1	100	
Non-private room without auditory or visual privacy	22	18.2	8.2	1	0	
Visual privacy only	22	0		1	0	
No privacy	22	0		1	0	
Other	22	0		1	0	

Table B5.1.2 Family planning (FP) storage

	Ambulatory			Basic		
	N	%	SE	N	%	SE
FP Storage						
Yes, stores contraceptives	23	95.7	4.3	1	100	
No, delivered when services are being provided	23	4.3	4.3	1	0	

Table B5.2.1 Observed contraception methods and reported services in ambulatory and basic facilities

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Observed FP methods						
Any pill	22	100		1	100	
Combined oral pill	22	95.5	4.4	1	100	
Progestin-only pill	22	18.2	8.2	1	0	
Any injectable	22	100		1	100	
Combined injectable (1 month)	22	95.5	4.4	1	100	
Progestin-only injectable (3 months)	22	86.4	7.3	1	100	
Male condom	22	86.4	7.3	1	100	
Female condom	22	0		1	0	
IUD*	3	100		1	100	
Spermicide	22	0		1	0	
Diaphragm	22	0		1	0	
Emergency contraception pill	22	4.5	4.4	1	0	
Implant	n/a	n/a	n/a	1	0	
Reported services						
Offers pregnancy test	23	43.5	10.3	1	100	
Trained doctor to perform IUD insertion	22	72.7	9.5	n/a	n/a	n/a
Trained doctor to perform tubal ligation	n/a	n/a	n/a	1	100	
Trained doctor to perform vasectomy	n/a	n/a	n/a	1	100	

*Intrauterine device (not applicable for health posts)

Table B5.3.1 Composite family planning indicator

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Condom	22	86.4	7.5	1	100	
Any pill	22	100		1	100	
Any injectable	22	100		1	100	
Intrauterine device*	3	100		1	100	
All above methods available on the day of the survey	22	86.4	7.5	1	100	
Continuous availability of FP inputs in the previous three months**	22	68.2	10.2	1	100	

*Intrauterine device not applicable for health posts

**Overall pharmacy availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of condoms + any pill + any injectable

Table B5.4.1 Teaching and awareness on family planning and sexually transmitted infections (STIs)

	Ambulatory				Basic			
	N	%	SE	DK	N	%	SE	DK
Individual FP counseling*	23	95.7	4.3	0	1	100		0
Group FP counseling*	23	95.7	4.3	0	1	100		0
FP posters on walls of facility	22	72.7	9.5	0	1	100		0
STI/HIV posters on walls of facility	22	40.9	10.5	0	1	100		0

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

Table B6.1.1 Antenatal care service provision in ambulatory facilities

	Ambulatory		
	N	%	SE
Offers ANC services	23	100	
ANC room			
Private room with auditory and visual privacy	22	100	
Non-private room without auditory or visual privacy	22	0	
Visual privacy only	22	0	
No privacy	22	0	

Table B6.1.2 ANC, delivery, and PPC service provision in basic facilities

	Basic		
	N	%	SE
Offers ANC services	1	100	
Offers routine delivery services (non-urgent)	1	100	
Offers PPC services	1	100	
ANC - PPC room			
Private room with auditory and visual privacy	1	100	
Non-private room without auditory or visual privacy	1	0	
Visual privacy only	1	0	
No privacy	1	0	
Delivery room			
Private room with auditory and visual privacy	1	100	
Non-private room without auditory or visual privacy	1	0	
Visual privacy only	1	0	
No privacy	1	0	

Table B6.2.1 Indicator for supplies and equipment needed for antenatal and postpartum care

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Observed and functional equipment	22	9.1	6.1	1	0	
Observed and functional laboratory inputs	n/a	n/a	n/a	1	0	
Indicator according to the norm (meets criteria listed above)	22	9.1	6.1	1	0	

Table B6.2.2 Observed and functional ANC - PPC equipment by facility classification

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Standing scales	23	78.3	8.6	1	0	
Stadiometer	23	39.1	10.2	1	0	
Gynecological exam table	23	87	7.0	1	100	
CLAP obstetrical tape	23	91.3	5.9	1	0	
Gooseneck lamp or hand lamp	23	39.1	10.2	1	100	
Blood pressure apparatus	23	78.3	8.6	1	100	
Stethoscope	23	78.3	8.6	1	100	
Set for IUD insertion*	3	66.7	27.2	1	100	
Gestogram	23	95.7	4.3	1	0	
Oral/axillary thermometer**	23	73.9	9.2			
All equipment observed and functional	22	9.1	6.1	1	0	

*Not applicable for health posts

**Not applicable for basic facilities

Table B6.2.3 ANC - PPC laboratory inputs

Equipment type	Basic		
	N	%	SE
Blood glucose strips/glucose meter	1	100	
Hemocue/automated cell counter	1	0	
Rapid HIV/AIDS test/flourescence microscope	1	100	
Rapid syphilis test/dark field microscope/ equipment for enzyme immunoassay	1	100	
Urine protein strips/urinalysis equipment	1	100	
All lab equipment observed	1	0	

Table B6.2.4 ANC - PPC pharmacy inputs by facility classification

Pharmacy inputs	Ambulatory			Basic		
	N	%	SE	N	%	SE
Ayre's spatula	n/a	n/a	n/a	1	0	
Folic Acid	22	81.8	8.2	1	100	
Iron	22	86.4	7.3	1	0	
Tetanus vaccine	22	27.3	9.5	1	0	
All inputs observed on the day of the survey	22	22.7	8.9	1	0	

Table B6.3.1 Equipment needed for delivery care

Equipment type	Basic		
	N	%	SE
Intravenous catheter sterile N ° 18	1	100	
Metallic Clamp or umbilical tape	1	100	
Equipment p/serum c/macrodrip and microdrip	1	0	
Nasogastric tube K 33	1	0	
Sterile fields or sheltering for a baby	1	0	

Table B6.3.2 Pharmacy inputs needed for delivery care

Pharmacy inputs	N	Basic	
		%	SE
Hyoscine bromide/Butylhyoscine	1	0	
Plastic clamp or umbilical tape	1	0	
Ergonovine maleate/Ergometrine/ Oxytocin	1	100	
Drops of chloramphenicol ophthalmology/1% silver nitrate	1	0	
Iodopovidona	1	0	
Ringer's lactate/Hartmann's solution/saline solution	1	100	
S lidocaine/S epinephrine	1	100	
C/mounted needle syringe (syringe insulin)	1	100	
Vitamin K 1 mg	1	100	

Table B6.5.1 Observed and functional equipment for EONC

Pharmacy inputs	N	Basic	
		%	SE
Hyoscine bromide/Butylhyoscine	1	0	
Plastic clamp or umbilical tape	1	0	
Ergonovine maleate/Ergometrine/ Oxytocin	1	100	
Drops of chloramphenicol ophthalmology/1% silver nitrate	1	0	
Iodopovidona	1	0	
Ringer's lactate/Hartmann's solution/saline solution	1	100	
S lidocaine/S epinephrine	1	100	
C/mounted needle syringe (syringe insulin)	1	100	
Vitamin K 1 mg	1	100	

Table B6.5.2 Drugs needed for EONC in basic level facilities

Drug availability	Basic		
	N	%	SE
Dexamethasone/betamethasone	1	100	
Ergonovine maleate or ergometrine or oxytocin	1	100	
Gentamicin	1	100	
Hydralazine ampoule	1	100	
Magnesium sulfate	1	100	
Antibiotics*	1	100	
Continuous availability of drugs in the previous three months**	1	100	

*Antibiotics = crystalline penicillin / ampicillin / amoxicillin / cephalixin / nitrofurantoin.

**Overall drug availability including availability of all inputs on the day of the survey and no-stock out in the previous three months of dexamethasone/betamethasone + ergonovine maleate/ergometrine/oxytocin + gentamicin + magnesium sulfate

Table B7.1.1 Health facility relationship with maternity homes

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Health facility has connection with maternity homes	23	91.3	5.9	1	100	
Health facility has report/registry about women placed in maternity homes for the last year	21	33.3	10.3	1	100	
Report/registry about women placed in maternity homes for the last year is observed*	7	85.7	13.2	1	100	

*Asked only if a health facility has a report/registry about women placed in maternity homes for the last year

Table B7.2.1 Women with access to educational materials and training

	# of facilities with record of training	# of trained women	% of women with recorded training
Pregnancy care training	3	35	6.73
Newborn care training	3	35	6.73
Breastfeeding training	3	35	6.73
Nutrition training	3	35	6.73
Family Planning training	3	35	6.73

Table B8.1.1 Equipment for disposal

	Ambulatory				Basic			
	N	%	SE	DK/DR	N	%	SE	DK/DR
Incinerator at facility	23	56.5	10.3	0	1	100		0
Manual for decontamination	23	52.2	10.4	0	1	100		0

Table B8.2.1 Decontamination and sterilization

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Decontamination methods						
Submerged in disinfectant, then scrubbed with a brush, soap and water	23	34.8	9.9	1	100	
Scrubbed with a brush, soap and water, then submerged in disinfectant	23	34.8	9.9	1	0	
Scrubbed with a brush, soap and water only	23	21.7	8.6	1	0	
Submerged in disinfectant, without scrubbing with brush	23	0		1	0	
Cleaned with water and soap, without scrubbing with a brush	23	0		1	0	
Equipment never reused	23	4.3	4.3	1	0	
Other	23	4.3	4.3	1	0	
Sterilization methods						
Dry heat	23	8.7	5.9	1	0	
Autoclave	23	43.5	10.3	1	100	
Boiling	23	8.7	5.9	1	0	
Steam	23	8.7	5.9	1	0	
Chemical sterilization	23	21.7	8.6	1	0	
Processed away from facility	23	4.3	4.3	1	0	
Facility doesn't sterilize	23	0		1	0	
Other	23	8.7	5.9	1	0	

Appendix C: Aggregate Tables

Table C2.1.1 Types of facilities

Classification	Facility type	No. of facilities
Ambulatory	Health post	51
	Health center without beds	4
Basic	Health center with beds	2
	Primary Hospital	4
Complete	Departmental Hospital	1
	Regional Hospital	2
Total	6	64

Table C2.1.2 Geographical representation

Department	Municipality	No. of facilities
Chontales	El Ayote	1
Jinotega	Bocay	2
	El Cua	4
	Jinotega	16
	San Sebastián de Yali	2
	Santa María de Pantasma	1
	Wiwilí (Jinotega)	2
Madriz	San Juan Del Rio Coco	5
	Telpaneca	2
Matagalpa	Bocana de Paiwas	3
	Matagalpa	5
	Matiguás	3
	Tuma-La Dalia	4
Raán	Bonanza	1
	Puerto Cabezas	6
	Rosita	2
	Siuna	2
	Waspan	3
Total	18	64

Table C2.1.3 Number of medical records by facility classification (EONC level)

Medical records	Ambulatory	Basic	Complete	Total
Antenatal care	560	67	24	651
Delivery	0	78	24	102
Postpartum	0	65	24	89
Maternal complications	0	82	56	138
Neonatal complications	0	81	56	137
Maternity homes	16	18	13	47
Total	576	391	197	1164

Table C2.2.1 Electricity and water

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Functional electricity	55	90.9	3.9	6	100		3	100	
DK/DR	0			0			0		
Source of electricity									
Central supply (Comisión Federal de Electricidad)	50	92	3.8	6	100		3	100	
Private supply	50	2	2.0	6	0		3	0	
In-facility generator	50	6	3.4	6	16.7	15.2	3	33.3	27.2
Solar generator	50	10	4.2	6	0		3	0	
Other source	50	6	3.4	6	0		3	0	
DK/ DR	0			0			0		
Source of water									
Piped into facility	55	56.4	6.7	6	50	20.4	3	100	
Public well	55	18.2	5.2	6	0		3	0	
Facility well	55	10.9	4.2	6	50	20.4	3	33.3	27.2
Unprotected well	55	3.6	2.5	6	0		3	0	
Hand pump	55	1.8	1.8	6	0		3	0	
Bottled water	55	1.8	1.8	6	0		3	0	
Tanker truck	55	0		6	0		3	0	
Rain water	55	1.8	1.8	6	0		3	0	
Other	55	12.7	4.5	6	33.3	19.3	3	0	
DK/ DR	0			0			0		

Table C2.3.1 Personnel composition by facility classification

Personnel type	Ambulatory			Basic		
	N	mean	SE	N	mean	SE
General physician	23	0.9	2.6	1	4	n/a
Pediatrician	23	0	0.2	1	2	n/a
Nutritionist	23	0		1	0	n/a
Pharmacist	21	0	0.2	1	0	n/a
Nurse	23	1	1.7	1	10	n/a
Auxiliary nurse	23	1.2	2.1	1	16	n/a
Midwife	22	0.1	0.6	1	0	n/a
Social worker	23	0.2	0.5	1	0	n/a
Laboratory technician	22	0.2	0.6	1	2	n/a
Health promoter	22	0.8	3.2	1	0	n/a
Other	17	0.1	0.3	1	0	n/a
Internist	23	0	0.2	1	1	n/a
Gynecologist	23	0	0.2	1	1	n/a
Surgeon	23	0		1	1	n/a
Anesthesiologist	23	0	0.2	1	0	n/a
Emergency medical technician	23	0		1	0	n/a
Radiology technician	23	0		1	0	n/a
Ambulance driver/polyvalent	23	0.4	1.1	1	2	n/a

Table C3.1.1 Child health care service provision by facility classification

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Unit offers child services	55	100		6	100		3	100	
Child care room									
Private room with visual and auditory privacy	53	79.2	5.6	6	100		2	100	
Non-private room without auditory or visual privacy	53	15.1	4.9	6	0		2	0	
No privacy	53	3.8	2.6	6	0		2	0	
Other	53	1.9	1.87	6	0		2	0	

*Missing child care room data for one complete facility

Table C3.2.1 Continuous availability of supplies and equipment needed for child care

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Observed and functional equipment	53	3.8	2.6	6	0	
Continuous availability of pharmacy inputs	53	83	5.2	6	50	20.4
Continuous availability of vaccines*	40	5	3.5	6	0	
Meets all criteria listed above	53	0		6	0	

*Only applicable if facility stored vaccines

Table C3.3.1 Child health care equipment observed and functional by facility type

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Pediatric balance or scale	54	85.2	4.8	6	83.3	15.2
Tallimeter or stadiometer	54	70.4	6.2	6	0	0.0
Stethoscope	54	48.1	6.8	6	50	20.4
Pediatric stethoscope*	54	5.6	3.1	6	0	
Oral/axillary thermometer	54	16.7	5.1	6	33.3	19.3
Growth card	54	94.4	3.1	6	16.7	15.2
All above equipment observed and functional	54	3.7	2.6	6	0	

*Pediatric stethoscopes were not measured in health posts

Table C3.4.1 Child health care observed drugs and supplements on the day of the survey

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Packets/envelopes of oral rehydration salt	55	90.9	3.9	6	83.3	15.2
Ferrous sulfate/zinc sulfate/zinc gluconate	55	98.2	1.8	6	100	
Albendazole/mebendazole	55	96.4	2.5	6	100	
Antibiotics*	4	100		6	100	
Ringer's lactate/Hartmann's solution/saline solution	n/a	n/a	n/a	6	83.3	15.2
All inputs available on the day of the survey	55	85.5	4.8	6	83.3	15.2

*Antibiotic = amoxicillin + benzathine penicillin + erythromycin (not applicable for health posts)

Table C3.4.2 Child health care observed drugs and supplements stock in previous three months

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Availability of all pharmacy inputs on the day of the survey	55	85.5	4.8	6	83.3	15.2
Continuous availability of pharmacy inputs in the previous 3 months*	55	81.8	5.2	6	50	20.4

*Overall pharmacy availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of packets/envelopes of oral rehydration salt + albendazole/mebendazole + antibiotics

Table C3.5.1 Child health education and awareness

Education material	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Printed materials on child growth and child development	53	54.7	6.8	6	16.7	15.2	2	50	35.4
Printed materials on danger signs and symptoms of children at risk	53	56.6	6.8	6	16.7	15.2	2	50	35.4

Table C4.1.1 Vaccination services

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Unit vaccinates children under 5	55	94.5	3.1	6	100		3	100	
Immunization room									
Private room with visual and auditory privacy	51	39.2	6.8	6	83.3	15.2	2	100	
Non-private room without auditory or visual privacy	51	47.1	7.0	6	0		2	0	
Visual privacy only	51	2	1.9	6	0		2	0	
No privacy	51	5.9	3.3	6	16.7	15.2	2	0	
Don't provide such services	51	2	1.9	6	0		2	0	
Other	51	3.9	2.7	6	0		2	0	

Table C4.2.2 Vaccine demand and supply

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Storage									
Stored in facility	52	78.8	5.7	6	100		3	100	
Picked up from another facility	52	9.6	4.1	6	0		3	0	
Delivered when services are being provided	52	9.6	4.1	6	0		3	0	
None of the above	52	1.9	1.9	6	0		3	0	
Demand and Supply									
Ordering Strategy									
Determines own needs	40	85	5.7	6	50	20.4	3	100	
Need determined elsewhere	40	10	4.7	6	50	20.4	3	0	
Both(differ by vaccine)	40	5	3.5	6	0		3	0	
DK/DR	1								
Quantity to order strategy									
Order same amount	40	92.5	4.2	6	100		3	100	
Different per vaccine	40	7.5	4.2	6	0		3	0	
Time to order strategy									
Fixed time, >= once/week	40	10	4.7	6	0		3	0	
Fixed time, < once/week	40	57.5	7.8	6	83.3	15.2	3	66.7	27.2
Order when needed	40	32.5	7.4	6	16.7	15.2	3	33.3	27.2
Time to receive supplies									
< 1 week	40	95	3.5	6	100		3	100	
1-2 weeks	40	2.5	2.5	6	0		3	0	
> 2 weeks	40	2.5	2.5	6	0		3	0	
Reception of quantity ordered									
Always	41	75.6	6.7	6	66.7	19.3	3	100	
Almost always	41	24.4	6.7	6	33.3	19.3	3	0	
Almost never	41	0		6	0		3	0	

Table C4.3.1 Vaccine stocks observed

Vaccine type	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Pentavalent*	38	92.1	4.4	6	100		2	100	
MMR	38	89.5	5.0	6	100		2	100	
Polio	38	84.2	5.9	6	100		2	100	
Influenza	38	31.6	7.5	6	33.3	19.3	2	0	
Rotavirus	38	89.5	5.0	6	83.3	15.2	2	100	
Pneumococcal conjugate	38	65.8	7.7	6	33.3	19.3	2	50	35.4
BCG	38	31.6	7.5	6	16.7	15.2	2	0	
DPT alone	38	86.8	5.5	6	100		2	100	
HepB alone	38	10.5	5.0	6	0		2	0	

*Pentavalent= DPT, HepB, Hib; MMR = Measles, Mumps, Rubella

Table C4.4.1 Vaccine storage

Storage	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Electric fridge	48	75	6.3	6	100		2	100	
Kerosene fridge	48	0		6	0		2	0	
Gas fridge	48	0		6	0		2	0	
Solar fridge	48	2.1	2.1	6	0		2	0	
Cold box	48	70.8	6.6	6	16.7	15.2	2	0	
Any of the above	48	93.8	3.5	6	100		2	100	

Table C4.4.2 Cold chain indicator

Cold chain	Ambulatory			Basic		
	N	%	SE	N	%	SE
Temperature monitoring chart for each functioning fridge	41	65.9	7.4	6	50	20.4
Temperature was recorded twice daily during the last 30 days for each fridge	41	34.1	7.4	6	33.3	19.3
Cold chain according to standards (meets above criteria)	41	34.1	7.4	6	33.3	19.3

Table C5.1.1 Family planning (FP) services provision

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Offers FP services	55	100		6	100		3	100	
FP room									
Private room with visual and auditory privacy	54	83.3	5.1	6	100		2	100	
Non-private room without auditory or visual privacy	54	13	4.6	6	0		2	0	
Visual privacy only	54	0		6	0		2	0	
No privacy	54	1.9	1.8	6	0		2	0	
Other	54	1.9	1.8	6	0		2	0	

*Missing family planning room data for one complete facility

Table C5.1.2 Family planning (FP) storage

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
FP Storage									
Yes, stores contraceptives	55	98.2	1.8	6	100		3	100	
No, delivered when services are being provided	55	1.8	1.8	6	0		3	0	

Table C5.2.1 Observed contraception methods and reported services in ambulatory and basic facilities

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Observed FP methods									
Any pill	54	88.9	4.3	6	66.7	19.3	2	50	35.4
Combined oral pill	54	79.6	5.5	6	66.7	19.3	2	50	35.4
Progestin-only pill	54	20.4	5.5	6	0		2	0	
Any injectable	54	98.1	1.8	6	100		2	100	
Combined injectable (1 month)	54	92.6	3.6	6	83.3	15.2	2	100	
Progestin-only injectable (3 months)	54	90.7	3.9	6	100		2	50	35.4
Male condom	54	81.5	5.3	6	83.3	15.2	2	100	
Female condom	54	0		6	16.7	15.2	2	0	
IUD*	5	80	17.9	6	83.3	15.2	2	50	35.4
Spermicide	54	0		6	0		2	0	
Diaphragm	54	0		6	0		2	0	
Emergency contraception pill	54	1.9	1.8	6	0		2	50	35.4
Implant	n/a	n/a	n/a	6	0		2	0	
Reported services									
Offers pregnancy test	62	53.2	6.3	6	100		2	100	
Trained doctor to perform IUD insertion	54	64.8	6.5						
Trained doctor to perform tubal ligation	n/a	n/a	n/a	6	100		2	100	
Trained doctor to perform vasectomy	n/a	n/a	n/a	6	83.3	15.2	2	50	35.4

*Intrauterine device (not applicable for health posts)

Table C5.3.1 Composite family planning indicator

	Ambulatory			Basic		
	N	%	SE	N	%	SE
Condom	54	81.5	5.3	6	83.3	16.7
Any pill	54	88.9	4.3	6	66.7	21.1
Any injectable	54	98.1	1.9	6	100	
Intrauterine device*	5	80	20.0	6	83.3	16.7
All above methods available on the day of the survey	54	75.9	5.9	6	66.7	21.1
Continuous availability of FP inputs in the previous three months**	54	63	6.6	6	66.7	21.1

*Intrauterine device not applicable for health posts

**Overall FP availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of condoms + any pill + any injectable

Table C5.4.1 Teaching and awareness on family planning and STIs

	Ambulatory				Basic				Complete			
	N	%	SE	DK	N	%	SE	DK	N	%	SE	DK
Individual FP counseling*	55	95	3.1	0	6	100		0	3	100		0
Group FP counseling*	54	82	5.3	1	5	80	17.9	1	3	100		0
FP posters on walls of facility**	54	74	6.0	0	6	67	19.3	0	2	100		0
STI/HIV posters on walls of facility**	54	43	6.7	0	6	33	19.3	0	2	50	35.4	0

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

**Data for the family planning room missing from one complete facility in the observation module

Table C6.1.1 ANC service provision in ambulatory facilities

	Ambulatory		
	N	%	SE
Offers ANC services	55	100	
ANC room			
Private room with auditory and visual privacy	54	94.4	3.1
Non-private room without auditory or visual	54	1.9	1.8
Visual privacy only	54	1.9	1.8
No privacy	54	1.9	1.8

Table C6.1.2 ANC, delivery, and PPC service provision in basic and complete facilities

	Basic			Complete		
	N	%	SE	N	%	SE
Offers ANC services	6	100		3	66.7	27.2
Offers routine delivery services (non-urgent)	6	100		3	100	
Offers PPC services	6	100		3	100	
ANC - PPC room						
Private room with auditory and visual privacy	6	100		2	100	
Non-private room without auditory or visual						
privacy	6	0		2	0	
Visual privacy only	6	0		2	0	
No privacy	6	0		2	0	
Delivery room						
Private room with auditory and visual privacy	6	100		2	100	
Non-private room without auditory or visual						
privacy	6	0		2	0	
Visual privacy only	6	0		2	0	
No privacy	6	0		2	0	

Table C6.2.1 Indicator for supplies and equipment needed for antenatal and postpartum care

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Observed and functional equipment	54	11.1	4.3	6	0	
Observed and functional laboratory inputs	n/a	n/a	n/a	6	33.3	19.3
Indicator according to the norm (meets criteria listed above)	54	11.1	4.3	6	0	

Table C6.2.2 Observed and functional ANC - PPC equipment by facility classification

Equipment type	Ambulatory			Basic		
	N	%	SE	N	%	SE
Standing scales	55	85.5	4.8	6	66.7	19.3
Stadiometer	55	49.1	6.7	6	50	20.4
Gynecological exam table	55	89.1	4.2	6	100	
CLAP obstetrical tape	55	85.5	4.8	6	33.3	19.3
Gooseneck lamp or hand lamp	55	47.3	6.7	6	83.3	15.2
Blood pressure apparatus	55	83.6	5.0	6	100	
Set for IUD insertion*	5	40	21.9	6	33.3	19.3
Gestogram	55	87.3	4.5	6	16.7	15.2
Oral/axillary thermometer	55	70.9	6.1	n/a	n/a	n/a
All equipment observed and functional	54	11.1	4.3	6	0	

*Not applicable for health posts

**Not applicable for basic facilities

Table C6.2.3 ANC - PPC laboratory inputs

Equipment type	Basic		
	N	%	SE
Blood glucose strips/glucose meter	6	100	
HemoCue/automated cell counter	6	83.3	15.2
Rapid HIV/AIDS test/flourescence microscope	6	66.7	19.3
Rapid syphilis test/dark field microscope/ equipment for enzyme immunoassay	6	66.7	19.3
Urine protein strips/urinalysis equipment	6	100	
All lab equipment observed	6	33.3	19.3

Table C6.2.4 ANC - PPC pharmacy inputs by facility classification

Pharmacy inputs	Ambulatory			Basic		
	N	%	SE	N	%	SE
Ayre's spatula	n/a	n/a	n/a	6	0	
Folic Acid	54	77.8	5.7	6	66.7	19.3
Iron	54	88.9	4.3	6	66.7	19.3
Tetanus vaccine	54	27.8	6.1	6	0	
All inputs observed on the day of the survey	54	24.1	5.8	6	0	

Table C6.3.1 Equipment needed for delivery care

Equipment type	Basic			Complete		
	N	%	SE	N	%	SE
Intravenous catheter sterile N ° 18	6	83.3	15.2	2	0	
Metallic Clamp or umbilical tape	6	100		2	50	35.4
Equipment p/serum c /macro drip and micro drip	6	83.3	15.2	2	50	35.4
Nasogastric tube K 33	6	16.7	15.2	2	50	35.4
Sterile fields or sheltering for a baby	6	50	20.4	2	50	35.4

Table C6.3.2 Pharmacy inputs needed for delivery care

Pharmacy inputs	Basic			Complete		
	N	%	SE	N	%	SE
Hyoscine bromide/Butylhyoscine	6	66.7	19.3	2	0	
Plastic clamp or umbilical tape	6	16.7	15.2	2	0	
Ergonovine maleate/ergometrine/oxytocin	6	100		2	100	
Chloramphenicol eye drops /1% silver nitrate	6	50	20.4	2	0	
Povidone-iodine	6	0		2	0	
Ringer's lactate/Hartmann's solution/saline solution	6	83.3	15.2	2	100	
S lidocaine/S epinephrine	6	100		2	100	
C /mounted needle syringe (syringe insulin)	6	16.7	15.2	2	0	
Vitamin K 1 mg	6	66.7	19.3	2	50	35.4

Table C6.5.1 Observed and functional equipment for EONC

Equipment type	Basic			Complete		
	N	%	SE	N	%	SE
Intravenous catheter sterile N ° 18	18	88.9	7.4	9	77.8	13.9
Metallic Clamp or umbilical tape	18	94.4	5.4	9	100	
Equipment p/serum c/macrodrip and microdrip	18	77.8	9.8	9	100	
Nasogastric tube K 33	18	27.8	10.6	9	44.4	16.6
Sterile fields or sheltering for a baby	18	77.8	9.8	9	100	
All equipment observed and functional	18	27.8	10.6	9	22.2	13.9

Table C6.5.2 Drugs needed for EONC in basic-level facilities

Drug availability	Basic		
	N	%	SE
Dexamethasone/betamethasone	6	100	
Ergonovine maleate or ergometrine or oxytocin	6	100	
Gentamicin	6	83.3	15.2
Hydralazine ampoules	6	83.3	15.2
Magnesium sulfate	6	83.3	15.2
Antibiotics*	6	100	
Continuous availability of drugs in the previous three months**	6	66.7	19.3

*Antibiotics = crystalline penicillin / ampicillin / amoxicillin /cephalexin / nitrofurantoin

**Overall drug availability including availability of all inputs on the day of the survey and no stock-out in the previous three months of dexamethasone/betamethasone + ergonovine maleate/ergometrine/oxytocin + gentamicin + magnesium sulfate

Table C7.1.1 Health facility relationship with maternity homes

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Health facility has connection with maternity homes	55	94.5	3.1	6	100		3	100	
Health facility has report/registry about women placed in maternity homes for the last year	52	32.7	6.5	6	100		3	0	
Report/registry about women placed in maternity homes for the last year is observed*	17	88.2	7.8	6	50	20.4	0		

*Asked only if a health facility as a report/registry about women placed in maternity homes for the last year

Table C7.2.1 Women with access to educational materials and training

	# of facilities with record of training	# of trained women	% of women with recorded training
Pregnancy care training	6	51	4.62
Newborn care training	6	51	4.62
Breastfeeding training	6	51	4.62
Nutrition training	6	51	4.62
Family Planning training	6	51	4.62

Table C7.3.1 Women housed in maternity homes and adopted family planning method

	N	%	SE
Women housed in maternity homes who adopted family planning method within 40 days of giving birth	47	38.3	7.09

Table C8.1.1 Equipment for disposal

	Ambulatory				Basic				Complete			
	N	%	SE	DK/DR	N	%	SE	DK/DR	N	%	SE	DK/DR
Incinerator at facility	55	50.9	6.7	0	6	83.3	15.2	0	3	66.7	27.2	0
Manual for decontamination*	52	34.6	6.6	3	6	100		0	3	100		0

*Missing data for three ambulatory facilities

Table C8.2.1 Decontamination and sterilization

	Ambulatory			Basic			Complete		
	N	%	SE	N	%	SE	N	%	SE
Decontamination methods									
Submerged in disinfectant, then scrubbed with a brush, and water, then submerged in disinfectant	55	32.7	6.3	6	50	20.4	3	33.3	27.2
Scrubbed with a brush, soap and water only	55	21.8	5.6	6	50	20.4	3	0	
Submerged in disinfectant, without scrubbing with	55	18.2	5.2	6	0		3	0	
Cleaned with water and soap, without scrubbing	55	12.7	4.5	6	0		3	0	
Equipment never reused	55	5.5	3.1	6	16.7	15.2	3	0	
Other	55	7.3	3.5	6	0		3	33.3	27.2
Sterilization methods									
Dry heat	55	5.5	3.1	6	0		3	0	
Autoclave	55	7.3	3.5	6	0		3	0	
Boiling	55	38.2	6.6	6	100		3	100	
Steam	55	5.5	3.1	6	0		3	0	
Chemical sterilization	55	5.5	3.1	6	0		3	0	
Processed away from facility	55	14.5	4.8	6	0		3	0	
Facility doesn't sterilize	55	23.6	5.7	6	0		3	0	
Other	55	3.6	2.5	6	0		3	0	
	55	5.5	3.1	6	0		3	0	