

SM2015 Initiative El Salvador



Baseline Health Facility Report October 2011

Data Quality Report

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This data quality report on the Salud Mesoamérica 2015-El Salvador baseline health 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.

Chapter 1 SURVEY METHODOLOGY

1.1 Overview

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

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. Equally important, the facility survey captures changes in interventions at the level of the health services access point, the facility, and predicts changes in population health outcomes. The baseline health facility survey, recounted in this data quality 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 2011 baseline El Salvador health facility survey

The baseline health facility survey includes two components: an interview questionnaire and an observation checklist. The questionnaire captures information reported by the facility manager; the checklist captures objective data observed by the surveyors at the time of the survey. In both parts of the survey, data are collected on multiple indicators for general facility characteristics; infrastructure; human resource composition; supply logistics; infection control; child health care; vaccines; family planning; and maternal antenatal, delivery, and postpartum care. On child and maternal care and family planning, information was collected on the types of services provided, components of the care offered, equipment utilized, and quality of record-keeping.

1.3.2 Methods for data collection

The facility survey was conducted using a computer-assisted personal interview (CAPI). CAPI was programmed using DatStat Illume and installed into 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

All facilities at the primary level of care present in the 138 segments of intervention selected for the household survey were sampled: 55 basic health units (ECOS) and 10 specialized health units (three specialized ECOS and seven health centers).

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 El Salvador in March 2011. Thirteen surveyors with a medical background underwent three days of training. The training included an introduction to the initiative, proper conduct of survey, in-depth view of the instrument, and hands-on training on the CAPI software. Training was followed by a two-day pilot at actual health facilities.

1.5.3 Data collection and management

Data collection began in April 2011 and ended in May 2011. As described in section 1.3.2, data were collected using computer netbooks equipped with CAPI software. A lead surveyor monitored conduction 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 instrument survey would be ready for use on the following day of data collection.

1.5.4 Data analysis and report writing

Ongoing data analysis was done at IHME, and new data were continuously incorporated. Analysis was done using STATA version 11. A mid-survey report was submitted to the Inter-American Development Bank with estimates on key for-payment indicators.

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

Key for presented tables below:

N = total non-missing observations
 num = number of observations
 satisfying the option specified in each
 row
 DK/DR = Don't know/Decline to
 respond
 se = standard error

2.1 General description of the facility

2.1.1 Type of health facility

A total of 65 facilities were evaluated. The facilities were located in 14 municipalities in a total of eight departments (Table 2.1.1, Table 2.1.2).

Table 2.1.1 Types of facilities

| | Number (%) |
|------------------|------------|
| ECOS | 55 (85%) |
| Specialized ECOS | 3 (5%) |
| Health center | 7 (11%) |

Table 2.1.2 Geographical representation

| Department name | Number of municipalities | Number of facilities |
|-----------------|--------------------------|----------------------|
| Ahuachapán | 1 | 10 |
| Cabañas | 3 | 22 |
| Cuscatlán | 2 | 6 |
| La Libertad | 1 | 3 |
| La Paz | 2 | 5 |
| La Unión | 1 | 1 |
| Morazán | 1 | 1 |
| San Vicente | 5 | 17 |

2.1.3 Time in existence

On average, facilities have been located in their current location around 19 months (median is four months) for ECOS, and 252 months (median is 14 months) in the specialized health units. 16.4% of ECOS were located elsewhere; 10% of specialized health units were located elsewhere.

2.1.4 Referrals

2.1.4.1 Referral network

In response to “What is the health referral network (SIBASI) for this facility?” facilities reported the government network specific to each department.

2.1.4.2 Distance to referral health unit

The distance to the nearest referral health unit was measured by distance in kilometers and time in minutes on foot or in a vehicle (Table 2.1.4.2). Two facilities (ECOS) reported that reaching the referral health center by foot was not applicable.

Table 2.1.4.2 Percent coverage of assigned population

| | ECOS | | | Specialized health units | | |
|----------------------------|------|-----------|-------|--------------------------|-----------|-------|
| | N | mean(se) | DK/DR | N | mean(se) | DK/DR |
| Distance (Km) | 49 | 19(2.1) | 6 | 10 | 19.1(5.6) | 0 |
| Time (minutes): by foot | 51 | 186(22.1) | 4 | 10 | 147(34.7) | 0 |
| Time (minutes): by vehicle | 55 | 39(3.8) | 0 | 10 | 32(7.7) | 0 |

2.1.5 Governing authority

All ECOS and specialized health units were public institutions.

2.1.6 Outreach services

All ECOS and specialized health units reported that they participate in outreach programs and services. This includes any activities done outside the facility, for example, child vaccination or public screening for health conditions.

2.2 Basic infrastructure

2.2.1 Infrastructure

On average, an ECOS structure was 83 m² of built area and included four rooms, excluding restrooms. Specialized health units included 20 rooms, excluding restrooms. An accurate measure of space area was not possible for specialized health units since most answers were reported as “Don’t Know” (Table 2.2.1).

About 82% of ECOS were well-maintained (i.e., no or minor damage to roof, wall, and doors). Eighty-nine percent included a waiting area for clients receiving health services. Ninety percent of specialized units were well maintained; all had a waiting area (Table 2.2.2).

Table 2.2.1 Facility space

| | ECOS | | | Specialized health units | | |
|------------------------|------|------------|-------|--------------------------|-----------|-------|
| | N | mean(se) | DK/DR | N | mean(se) | DK/DR |
| Area (m ²) | 22 | 83.2(39.1) | 33 | 1 | 30 | 9 |
| Room number | 54 | 4.3(0.49) | 1 | 10 | 20.1(7.9) | 0 |

2.2.2 Electricity and water

Only 70.9% of ECOS had functional electricity. Of those, 92.3% used a central electricity supply and 2.6% owned an in-facility generator. All specialized units had functional electricity; 90% of those used a central electricity supply.

Only 68.9% of ECOS reported having a water source, 88.2% of which were actually observed by the surveyors. About 41% reported severe shortage or lack of water occurring last year. Of those ECOS with a water source, most had water piped into the facility. All specialized health facilities reported a water source that was observed by the surveyors. One source for all specialized health facilities included water piped into the facility. Fifty percent reported a severe shortage or lack of water occurring last year (Table 2.2.2).

Table 2.2.2 Infrastructure, electricity, and water

| | ECOS | | | | Specialized health units | | | |
|------------------------------|------|----|-----------|---------|--------------------------|----|--------|---------|
| | N | n | %(se) | DK/DR | N | n | %(se) | DK/DR |
| Maintained infrastructure | 55 | 45 | 81.8(5.3) | 0 | 10 | 9 | 90(10) | 0 |
| Waiting area | 55 | 49 | 89.1(4.2) | 0 | 10 | 10 | 100 | 0 |
| Electricity | | | | | | | | |
| Functional electricity | 55 | 39 | 70.9(6.2) | 0 | 10 | 10 | 100 | 0 |
| Source of electricity | 39 | | | 0 | 10 | | | 0 |
| Central supply | 36 | | 92.3 | | 10 | 9 | 90 | |
| Private supply | 2 | | 5.1 | | 10 | 1 | 20 | |
| Solar | 0 | | 0 | | 10 | 0 | 0 | |
| In-facility generator | 1 | | 2.6 | | 10 | 0 | 0 | |
| Other source | 0 | | 0 | | 10 | 0 | 0 | |
| | N | n | %(se) | missing | N | n | %(se) | missing |
| Water | | | | | | | | |
| Source reported | 45 | 31 | 68.9(7.0) | 10 | 9 | 9 | 100 | 1 |
| Source observed | 17 | 15 | 88.2(8.1) | 14 | 9 | 8 | 100 | 1 |
| Water shortage | 29 | 12 | 41.4(9.3) | 2 | 8 | 4 | 50 | 1 |
| Source of water | 31 | | | 0 | 9 | | | 0 |
| Piped into facility | 21 | | 67.7 | | 9 | | 100 | |
| Public well | 5 | | 16.1 | | 0 | | 0 | |
| Facility well | 1 | | 3.2 | | 0 | | 0 | |
| Bottled water | 7 | | 22.6 | | 1 | | 11.1 | |
| Tanker truck | 1 | | 3.2 | | 0 | | 0 | |
| Source just outside facility | 2 | | 6.5 | | 0 | | 0 | |
| Other | 2 | | 6.5 | | 0 | | 0 | |

2.3 Personnel

2.3.1 ECOS

In general, the staff composition was similar across most ECOS. This composition is detailed in table 2.3.1. Seventy-four percent (37/50) ECOS housed a full team of at least one GP, one nurse, one polyvalent, and three health promoters.

Table 2.3.1 Personnel composition in ECOS as self-reported by the house-staff manager

| ECOS | | | |
|----------------------|----|----------|----------------------|
| | N | mean(se) | Missing [†] |
| General practitioner | 51 | 1 | 4 |
| Nurse | 51 | 2(0.1) | 4 |
| Polyvalent | 50 | 3.2(.1) | 5 |
| Health promoter | 51 | 0.8(0.1) | 4 |

[†] Missing due to program error

2.3.2 Specialized ECOS and health centers

Specialized health units offer a larger array of medical services. The personnel composition, however, shows a large variation across the different units (Table 2.3.2). None of the specialized units had a complete set of human resources according to the regulations. This includes at least one pediatrician, one intern, one OB/GYN, one nurse, one nurse assistant, three dentists, one physiotherapist, and one health educator.

Table 2.3.2 Personnel composition in specialized health units as self-reported by the house-staff manager

| Specialized health units | | |
|------------------------------|----|-----------|
| | N | mean(se) |
| Primary care physician | 10 | 3(0.8) |
| Nurse | 10 | 5.2(1.4) |
| Polyvalent | 10 | 0.8(0.3) |
| Health promoter | 10 | 15.9(7.1) |
| Pediatrician | 10 | 0.4(0.2) |
| Dentist | 10 | 1.4(0.3) |
| Intern | 10 | 0.2(0.1) |
| Ob-Gyn | 10 | 0.4(0.2) |
| Physiotherapist | 10 | 0.4(0.2) |
| Health educator | 10 | 0.3(0.2) |
| Statistician | 10 | 0.4(0.2) |
| Psychologist | 10 | 0.5(0.2) |
| Nutritionist | 10 | 0.4(0.2) |
| Pharmacist | 10 | 0.7(0.3) |
| Emergency medical technician | 10 | 0 |

Chapter 3 CHILD HEALTH

3.1 Child services offered – a background

All ECOS and specialized health units provide child health care services. In ECOS, 98.2% provide child vaccination services, and 55.6% of those provide this service daily. On the other hand, all specialized units provide vaccination services and do so on a daily basis. Ninety percent of specialized units and 69.1% of ECOS provide well-baby clinic services where a child is assessed for growth and development and screened for early signs of disease. This service is offered on average 16 days per month (median is 20 days) in ECOS and 15 days in specialized health units (median is 20) (Table 3.1).

Table 3.1 Child health care service provision

| | ECOS | | | | Specialized health units | | | |
|------------------------------------|------|----|-------------------------|-------|--------------------------|----|-------------------------|-------|
| | N | n | %(se) | DK/DR | N | n | %(se) | DK/DR |
| Child health care services | 55 | 55 | 100 | 0 | 10 | 10 | 100 | 0 |
| Child vaccination | 55 | 54 | 98.2(1.8) | 0 | 10 | 10 | 100 | 0 |
| Vaccination every day | 54 | 30 | 55.6(6.8) | 0 | 10 | 10 | 100 | 0 |
| Well baby clinic services | 55 | 38 | 69.1(6.3) | 0 | 10 | 9 | 90(10) | 0 |
| Days per month of well-baby clinic | 37 | | 15.9 [†] (1.1) | 1 | 9 | | 15.2 [†] (2.4) | 0 |

[†] Reported is the mean number of days per month

3.2 Child exam

With the exception of one specialized health unit, all other ECOS and specialized units reported performing all basic components of the child exam. This includes measuring weight and height of the child and plotting it on a growth chart. The exam also includes measuring the child's temperature, checking their vaccination status, and assessing vitamin A and micronutrient supplementation status (Table 3.2).

Table 3.2 Child exam reported components

| | ECOS | | | Specialized health units | | |
|-------------------------------|------|----|-------|--------------------------|----|--------|
| | N | n | %(se) | N | n | %(se) |
| Weight | 55 | 55 | 100 | 10 | 10 | 100 |
| Height | 55 | 55 | 100 | 10 | 10 | 100 |
| Graphing height and weight | 55 | 55 | 100 | 10 | 9 | 90(10) |
| Temperature | 55 | 55 | 100 | 10 | 10 | 100 |
| Vaccination status | 55 | 55 | 100 | 10 | 10 | 100 |
| Vitamin A supplementation | 55 | 55 | 100 | 10 | 9 | 90(10) |
| Micronutrient supplementation | 55 | 55 | 100 | 10 | 9 | 90(10) |

3.3 Child health care equipment

Below is a list of medical equipment required for providing basic child health care (Table 3.3). All items were observed by the surveyors.

Table 3.3 Child health care observed equipment

| | ECOS | | | Specialized health units | | |
|----------------------|------|----|-----------|--------------------------|----|----------|
| | N | n | %(se) | N | n | %(se) |
| Infant scale | 55 | 49 | 89.1(4.2) | 10 | 9 | 90(10) |
| Child scale | 55 | 48 | 87.3(4.5) | 10 | 9 | 90(10) |
| Thermometer | 55 | 53 | 96.4(2.6) | 10 | 10 | 100 |
| Watch with two hands | 55 | 54 | 98.2(1.8) | 10 | 9 | 90(10) |
| Perfusion set | 55 | 47 | 85.5(4.8) | 10 | 10 | 100 |
| Intravenous fluids | 55 | 32 | 58.2(6.7) | 10 | 8 | 80(13.3) |
| Cup and spoon | 55 | 43 | 78.2(5.6) | 10 | 10 | 100 |

3.4 Important drugs and supplements

Listed below are drugs and supplements important for basic child health care, namely an oral rehydration solution, albendazole, zinc, vitamin A, and micronutrient supplements. In both ECOS and specialized health units, albendazole is least prevalent. Table 3.4 displays the percentage of health units where at least one unit of the drug/solution was observed during the time of the survey.

Table 3.4 Child health - observed drugs and supplements

| | ECOS | | | | Specialized health units | | | |
|---------------------------|------|----|-----------|-------|--------------------------|----|----------|-------|
| | N | n | %(se) | DK/DR | N | n | %(se) | DK/DR |
| Oral rehydration solution | 55 | 49 | 89.1(4.2) | 0 | 10 | 10 | 100 | 0 |
| Albendazole | 55 | 27 | 49.1(6.8) | 0 | 10 | 4 | 40(16.3) | 0 |
| Zinc | 55 | 47 | 85.5(4.8) | 0 | 10 | 10 | 100 | 0 |
| Vitamin A | 43 | 31 | 72.1(6.9) | 8 | 10 | 7 | 70(15.3) | 0 |
| Micronutrient supplements | 43 | 22 | 51.2(7.7) | 8 | 10 | 7 | 70(15.3) | 0 |

3.5 Teaching material

Both ECOS and specialized health units promoted awareness on multiple child diseases and acute health events in various ways. Table 3.5 lists some educational material observed either as cards handed to the caretaker or as illustration of disease management flowcharts hung on the unit walls.

Table 3.5 Child health education and awareness

| Education material on: | ECOS | | | Specialized health units | | |
|---------------------------------|------|----|-----------|--------------------------|----|----------|
| | N | n | %(se) | N | n | %(se) |
| IMCI [†] mother cards | 55 | 29 | 52.7(6.8) | 10 | 9 | 90(10) |
| Other visual aids for mothers | 55 | 37 | 67.3(6.4) | 10 | 10 | 100 |
| Pneumonia attention | 55 | 30 | 54.5(6.8) | 10 | 10 | 100 |
| Child respiratory problems | 55 | 29 | 52.7(6.8) | 10 | 10 | 100 |
| Asthma exacerbation crisis | 55 | 27 | 49.1(6.8) | 10 | 10 | 100 |
| Dengue management | 55 | 30 | 54.5(6.8) | 10 | 9 | 90(10) |
| Social risk assessment in <5 yr | 55 | 27 | 49.1(6.8) | 10 | 8 | 20(13.3) |
| Diarrhea treatment | 55 | 40 | 72.7(6.1) | 10 | 10 | 100 |

[†] IMCI: Integrated management of childhood illness by WHO

3.6 Record-keeping

Ninety percent of specialized health units and 81.5% of ECOS reported maintaining a register for children under 5 years of age. A record-keeping file/register is considered valid only if it indicates that the child is under 5 years of age and lists the diagnosis or major symptom. Of the units that reported having a child register, a valid register was only observed in 90% of ECOS facilities; another 6% had a register that combined both children and adults. In specialized health units, a valid under-5 child register was observed in all units that reported storing child registers.

3.7 Composite basic child health care

Basic child health care components were defined as having present, by observation, at the time of the survey, an infant scale, a child scale, a thermometer, oral rehydration solution, albendazole, and zinc supplements. Thirty-nine percent of ECOS met the above criteria; only 30% of specialized units did (Table 3.6).

Table 3.7 Child health composite value

| | ECOS | | | Specialized health units | | |
|--|------|----|-----------|--------------------------|---|----------|
| | N | n | %(se) | N | n | %(se) |
| Percent of health facilities with a complete set of child health care components | 54 | 21 | 38.9(6.7) | 10 | 3 | 30(15.3) |

Chapter 4 VACCINES

4.1 Vaccination services

When asked about vaccination services, 94.5% of ECOS and 100% of specialized health units reported that they offer those services. All but one ECOS provides vaccination for both children and pregnant women.

Table 4.1 Vaccination services offered

| | ECOS | | | Specialized health units | | |
|-----------------------|------|----|-----------|--------------------------|----|-------|
| | N | n | %(se) | N | n | %(se) |
| Vaccine provision | 55 | 52 | 94.5(3.1) | 10 | 10 | 100 |
| Children only | | 1 | 2 | | 0 | 0 |
| ANC only | | 0 | 0 | | 0 | 0 |
| Both children and ANC | | 50 | 96 | | 10 | 100 |
| DK /DR | | 1 | 2 | | 0 | 0 |

4.2 Vaccine logistics

4.2.1 Storage

In general, ECOS pick up their vaccine stocks from another facility, while specialized health units store their vaccines in the facility (Table 4.2.2).

4.2.2 Demand and supply

In general, both ECOS and specialized health units order vaccine supplies as determined by their own need, primarily to maintain a fixed stock supply. The routine system for deciding when to order vaccines is most commonly predetermined in the ECOS (i.e., not necessarily at a fixed time frequency), while specialized health units receive their vaccine supplies at fixed time intervals. The time required for a requested order to arrive is zero to seven days in both health units; 88.5% of ECOS and 70% of specialized health units indicated that during the past six months they received the quantity of vaccines that they had ordered or were supposed to receive (Table 4.2.2).

Table 4.2.2 Supply and Demand in facilities that provide vaccination services

| | ECOS | | | | Specialized health units | | |
|--|------|----|------|-----------|--------------------------|----|-----|
| | N | n | % | DK/ DR | N | n | % |
| Storage | | | | | | | |
| Stored in facility | 52 | 18 | 34.6 | 0 | 10 | 10 | 100 |
| Picked up from another facility | 52 | 30 | 57.7 | 0 | 0 | 0 | 0 |
| Delivered when services are being provided | 52 | 5 | 9.6 | 0 | 0 | 0 | 0 |
| None of the above | 52 | 1 | 1.9 | 0 | 0 | 0 | 0 |
| Supply and Demand | | | | | | | |
| Ordering strategy | 52 | | | 0 | 10 | | |
| Determines own needs | | 51 | 98.1 | | | 9 | 90 |
| Need determined elsewhere | | 1 | 1.9 | | | 1 | 10 |
| Both (differ by vaccine) | | 0 | 0 | | | 0 | 0 |
| Quantity to order strategy | 52 | | | 0 | 10 | | |
| To maintain a fixed stock | | 32 | 61.5 | | | 6 | 60 |
| Order same amount | | 9 | 17.3 | | | 1 | 10 |
| Based on consumption | | 4 | 7.7 | | | 3 | 30 |
| Other | | 7 | 13.5 | | | 0 | 0 |
| Time to order strategy | 51 | | | 1 | 10 | | |
| Predetermined | | 20 | 39.2 | | | 3 | 30 |
| Fixed time, > once/week | | 4 | 7.8 | | | 0 | 0 |
| Fixed time, < once/week | | 13 | 25.5 | | | 6 | 60 |
| Order when needed | | 11 | 21.6 | | | 0 | 0 |
| Other | | 3 | 5.9 | | | 1 | 10 |
| Time to receive supplies | 52 | | | 0 | 10 | | |
| 0 – 1 week | | 44 | 84.6 | | | 8 | 80 |
| 2 – 4 weeks | | 8 | 15.4 | | | 2 | 20 |
| 5 – 8 weeks | | 0 | 0 | | | 0 | 0 |
| > 8 weeks | | 0 | 0 | | | 0 | 0 |
| Reception of quantity ordered | 52 | | | 0 | 10 | | |
| Always | | 46 | 88.5 | | | 7 | 70 |
| Often but not always | | 6 | 11.5 | | | 3 | 30 |
| Never or almost never | | 0 | 0 | | | 0 | 0 |

4.3 Equipment

All specialized health units and most ECOS use single-use syringes for vaccine administration. Few ECOS also use the auto-disposable syringe type (Table 4.3).

Table 4.3 Injection equipment

| | ECOS | | | Specialized health units | | |
|-----------------|------|----|-----------|--------------------------|----|-------|
| | N | n | %(se) | N | n | %(se) |
| Single-use | 54 | 52 | 96.3(2.6) | 10 | 10 | 100 |
| Sterilizable | 54 | 0 | 0 | 10 | 0 | 0 |
| Auto-disposable | 54 | 2 | 3.7(2.6) | 10 | 0 | 0 |
| Other | 54 | 0 | 0 | 10 | 0 | 0 |

4.4 Immunization services

4.4.1 In-facility

Table 4.4.2 below details the percent of facilities that reported provision of a specific vaccine inside the facility. This table also displays the average and median number of days per week the service was provided. The median was included due to the variability across facilities.

4.4.2 Outreach

In addition to the provision of specific vaccines inside the facility, table 4.4.2 details the percent of facilities that reported provision of vaccines as an outreach service. The average and median number of days per month the services was provided were detailed and included due to the variability across facilities.

Table 4.4.2 In-facility and outreach vaccination services

| Vaccine types | ECOS | | | | | | Specialized health units | | | | | |
|---------------|-------------|---------|--------|----------|---------|--------|--------------------------|---------|--------|----------|---------|--------|
| | In-facility | | | Outreach | | | In-facility | | | Outreach | | |
| | % | days/wk | | % | days/mo | | % | days/wk | | % | days/mo | |
| | | mean | median | | mean | median | | mean | median | | mean | median |
| Pentavalent* | 70.4 | 2.9 | 5 | 75.9 | 9.7 | 5 | 100 | 5.4 | 5 | 100 | 16.3 | 20 |
| DPT only | 63 | 2.7 | 4 | 66.7 | 8.4 | 5 | 100 | 5.4 | 5 | 100 | 16.3 | 20 |
| HepB only | 35.2 | 0.9 | 0 | 44.4 | 3.1 | 0 | 30 | 1 | 0 | 20 | 2 | 0 |
| Hib only | 44.4 | 1.4 | 0 | 46.3 | 5 | 0 | 40 | 2.2 | 0 | 40 | 6.5 | 0 |
| Polio | 68.5 | 2.9 | 5 | 72.2 | 9.7 | 5 | 100 | 5.4 | 5 | 100 | 16.3 | 20 |
| Measles only | 37 | 1.2 | 0 | 46.3 | 4.1 | 0 | 50 | 2.2 | 0 | 50 | 3.3 | 0 |
| MMR | 81.8 | 4.3 | 5 | 86.4 | 12.2 | 20 | 88.9 | 5.4 | 5 | 100 | 18 | 20 |
| Flu | 61.1 | 2.3 | 1 | 64.8 | 7.7 | 5 | 50 | 2.2 | 0 | 50 | 9 | 0 |
| Rotavirus | 68.5 | 2.9 | 5 | 74.1 | 9.7 | 5 | 90 | 5.4 | 5 | 80 | 16.3 | 20 |
| Pneumococcal | 64.8 | 2.6 | 2 | 72.2 | 8.8 | 5 | 60 | 3.7 | 5 | 70 | 12.5 | 20 |
| BCG | 63 | 2.3 | 1 | 66.7 | 7.8 | 5 | 90 | 5 | 5 | 80 | 13.5 | 20 |

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

4.5 Vaccines observed

Table 4.5 details the number and percent of facilities that possessed at least one unit of a specified vaccine as observed on the day of the survey.

Table 4.5 Vaccine stocks observed

| | ECOS | | | | Specialized health units | | | |
|----------------|------|----|------|-----------|--------------------------|----|------|-----------|
| | N | n | % | DK/ DR | N | n | % | DK/ DR |
| Pentavalent* | 43 | 22 | 51.2 | 8 | 10 | 10 | 100 | 0 |
| DPT | 43 | 19 | 44.2 | 8 | 10 | 10 | 100 | 0 |
| HepB | 43 | 5 | 11.6 | 8 | 10 | 3 | 30 | 0 |
| Hib | 43 | 8 | 18.6 | 8 | 10 | 0 | 0 | 0 |
| Polio | 43 | 19 | 44.2 | 8 | 10 | 8 | 80 | 0 |
| Measles | 43 | 9 | 20.9 | 8 | 10 | 3 | 30 | 0 |
| Flu | 18 | 5 | 27.8 | 33 | 10 | 5 | 50 | 0 |
| Rotavirus | 43 | 18 | 41.9 | 8 | 10 | 8 | 80 | 0 |
| Pneumococcal | 43 | 16 | 37.2 | 8 | 10 | 8 | 80 | 0 |
| BCG | 43 | 16 | 37.2 | 8 | 10 | 9 | 90 | 0 |
| Tetanus toxoid | 43 | 19 | 44.2 | 8 | 10 | 7 | 70 | 0 |
| MMR | 42 | 18 | 42.9 | 9 | 9 | 7 | 77.8 | 1 |

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

4.6 Cold chain

ECOS store their vaccines in an electric refrigerator or a cold box. All specialized health units store their vaccine supplies in electric refrigerators (Table 4.6.1). Only 63.5% of ECOS own either a fridge or a cold box, however, 88.5% of ECOS reported owning a vaccine carrier. On average, those 88.5% of facilities owned three vaccine carriers per facility. All specialized units own vaccine storage equipment and vaccine carriers. On average the number of carriers observed was around 10 at these specialized units. Twenty ECOS reported using temperature charts for their cold chain. In 85% of those, a chart was observed by a surveyor. In all specialized units, a temperature chart was observed. The mean temperature in the cold chain was 3.7°C and 3°C in ECOS and specialized facilities, respectively.

Table 4.6.1 Cold chain characteristics

| | ECOS | | | | Specialized health units | | | |
|-------------------|------|----|------|-------|--------------------------|----|-----|-------|
| | N | n | % | DK/DR | N | n | % | DK/DR |
| Storage | | | | | | | | |
| Electric fridge | 51 | 20 | 39.2 | 0 | 10 | 10 | 100 | 0 |
| Kerosene fridge | 51 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| Gas fridge | 51 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| Solar fridge | 51 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| Cold box | 51 | 17 | 43 | 1 | 10 | 0 | 0 | 0 |
| Any of the above | 51 | 33 | 63.5 | 0 | 10 | 10 | 100 | 0 |
| Vaccine carrier | 52 | 46 | 88.5 | 0 | 10 | 10 | 100 | 0 |
| Temperature chart | 20 | 17 | 85 | 0 | 10 | 10 | 100 | 0 |

Table 4.6.2 Cross-tabulation of electricity with availability of an electric fridge

| | | ECOS | | Specialized health units | |
|--------|---------|-------------|--------|--------------------------|--------|
| | | Electricity | | Electricity | |
| | | Present | Absent | Present | Absent |
| Fridge | Present | 19 | 1 | 10 | 0 |
| | Absent | 20 | 15 | 0 | 0 |

Table 4.6.3 Cold chain characteristics in facilities with a cold chain

| | ECOS | | | Specialized health units | | |
|--------------------------------|------|----------|-------|--------------------------|-----------|-------|
| | N | mean(se) | DK/DR | N | mean(se) | DK/DR |
| Number of vaccine carriers | 33 | 3.2(0.6) | 0 | 10 | 10.4(7.7) | 0 |
| Temperature of cold chain (°C) | 16 | 3.7(0.8) | 17 | 10 | 3(1.3) | 0 |

Chapter 5 FAMILY PLANNING

5.1 Service provision

All ECOS and specialized health units provided family planning services as both in-facility and outreach services. Services are provided around 18 days per month for both facility types (Table 5.1).

Table 5.1 Family planning (FP) services provision

| | ECOS | | Specialized health units | |
|-----------------------------|------|-----------|--------------------------|-----------|
| | N | mean(se) | N | mean(se) |
| In-facility FP (days/month) | 55 | 18.8(0.6) | 10 | 18(2.2) |
| Outreach FP (days/month) | 55 | 19.1(0.5) | 10 | 18.4(2.6) |

5.2 Logistics – supply and demand

Contraceptive methods are provided by all facilities. In general, both facility types determine their own needs when ordering contraception methods and the quantity ordered serves to maintain a fixed stock. Supplies are usually received within a week and it is uncommon not to receive the amount ordered. Specifics regarding the logistics of contraceptive methods are further detailed in Table 5.2.

Table 5.2 Logistics of contraception methods

| | ECOS | | | Specialized health units | | |
|--|------|----|------|--------------------------|----|-----|
| | N | n | % | N | n | % |
| Storage location | 55 | | | 10 | | |
| FP service area site | | 16 | 29.1 | | 6 | 60 |
| Pharmacy or other site | | 37 | 67.3 | | 4 | 40 |
| Locked area | | 1 | 1.8 | | 0 | 0 |
| No methods stored | | 1 | 1.8 | | 0 | 0 |
| Supply and demand in facilities that store methods | | | | | | |
| Ordering strategy | 54 | | | 10 | | |
| Determines own needs | | 49 | 90.7 | | 9 | 90 |
| Need determined elsewhere | | 3 | 5.6 | | 1 | 10 |
| Both (differ by method) | | 2 | 3.7 | | 0 | 0 |
| Quantity to order strategy | 54 | | | 10 | | |
| To maintain a fixed stock | | 51 | 94.4 | | 9 | 90 |
| Order same amount | | 1 | 1.9 | | 1 | 10 |
| Based on consumption | | 2 | 3.7 | | 0 | 0 |
| Other | | 0 | 0 | | 0 | 0 |
| Time to order strategy | 54 | | | 10 | | |
| Predetermined | | 23 | 42.6 | | 4 | 40 |
| Fixed time | | 21 | 38.9 | | 6 | 60 |
| Order when needed | | 10 | 18.5 | | 0 | 0 |
| Other | | 0 | 0 | | 0 | 0 |
| Time to receive supplies | 54 | | | 10 | | |
| 0 – 1 week | | 52 | 96.3 | | 10 | 100 |
| 2 – 4 weeks | | 2 | 3.7 | | 0 | 0 |
| 5 – 8 weeks | | 0 | 0 | | 0 | 0 |
| > 8 weeks | | 0 | 0 | | 0 | 0 |
| Reception of quantity ordered | 54 | | | 10 | | |
| Always | | 38 | 70.4 | | 8 | 80 |
| Often but not always | | 15 | 27.8 | | 1 | 10 |
| Never or almost never | | 1 | 1.9 | | 1 | 10 |

5.3 Observed contraception methods

Table 5.3 details the percent of facilities in which the surveyor observed at least one unit of a specific contraception method on the day of the survey. Most popular in both facility types are male condoms, the combined injectable, and the combined oral pill. Eighty percent and 100% of ECOS and specialized health units, respectively, had at least four contraception methods in stock during the time of the survey. Only 21.8% of ECOS reported having a pregnancy test, however, surveyors reported observing a pregnancy test in 33% of cases. In specialized health units, 50% reported having a pregnancy test while surveyors observed a test in 60% of the cases.

Table 5.3 Observed contraception method stocks and pregnancy tests

| | ECOS | | | Specialized health units | | |
|--------------------------------------|------|----|------|--------------------------|----|-----|
| | N | n | % | N | n | % |
| Combined oral pill | 55 | 45 | 81.8 | 10 | 9 | 90 |
| Progestin-only pill | 55 | 18 | 32.7 | 10 | 3 | 30 |
| Combined injectable (1 month) | 55 | 43 | 78.2 | 10 | 10 | 100 |
| Progestin-only injectable (3 months) | 55 | 43 | 78.2 | 10 | 9 | 90 |
| Male condom | 55 | 49 | 89.1 | 10 | 10 | 100 |
| Female condom | 55 | 1 | 1.8 | 10 | 0 | 0 |
| IUD | 55 | 8 | 14.5 | 10 | 6 | 60 |
| Implant | 55 | 0 | 0 | 10 | 0 | 0 |
| Spermicide | 55 | 0 | 0 | 10 | 0 | 0 |
| Diaphragm | 55 | 0 | 0 | 10 | 0 | 0 |
| Emergency contraception pill | 55 | 9 | 16.4 | 10 | 2 | 20 |
| Basic methods present* | 55 | 5 | 9.1 | 10 | 6 | 60 |
| At least any 4 methods present | 55 | 44 | 80 | 10 | 10 | 100 |
| Pregnancy test | | | | | | |
| Reported | 55 | 12 | 21.8 | 10 | 5 | 50 |
| Observed | 12 | 4 | 33.3 | 5 | 3 | 60 |

*Includes oral pill + male condom + IUD + (progestin-only or combined injectable)

5.4 Sexually transmitted infections (STI)

Both facility types reported that STIs are more commonly treated in the facility as opposed to alternative treatments outside the facility (Table 5.4).

Table 5.4 Management of STIs

| | ECOS | | | Specialized health units | | |
|--------------------------|------|----|------|--------------------------|---|----|
| | N | n | % | N | n | % |
| STI management* | 55 | | | 10 | | |
| Routinely treat STIs | | 47 | 85.5 | | 9 | 90 |
| Refers clients | | 8 | 14.5 | | 1 | 10 |
| No treatment or referral | | 1 | 1.8 | | 0 | 0 |

* Routinely treat and refer client sub-options are not mutually exclusive

5.5 Teaching and awareness

Table 5.5 illustrates the percent of facilities where surveyors observed teaching and awareness graphics posted in the facility. Illustrations include those related to family planning and STIs.

Table 5.5 Visuals for teaching and awareness of family planning and STIs

| | ECOS | | | Specialized health units | | |
|---------------------------|------|----|------|--------------------------|----|-----|
| | N | n | % | N | n | % |
| Samples of FP methods | 55 | 40 | 72.7 | 10 | 9 | 90 |
| Teaching about FP methods | 55 | 18 | 32.7 | 10 | 9 | 90 |
| Teaching about STIs | 55 | 35 | 63.6 | 10 | 9 | 90 |
| Teaching about HIV/AIDS | 55 | 42 | 76.4 | 10 | 10 | 100 |
| How to use condoms | 55 | 17 | 30.9 | 10 | 7 | 70 |
| Promotion of FP | 55 | 39 | 70.9 | 10 | 10 | 100 |
| Awareness of STIs and HIV | 55 | 39 | 70.9 | 10 | 10 | 100 |

5.6 FP record-keeping

In 87% of ECOS, a valid register for FP clients was observed while the same was observed in only 77.8% of specialized health units (Table 5.6). A valid register displays the chosen method and the status (new or continuing) for each client.

Table 5.6 Register and record-keeping for FP clients

| | ECOS | | | | Specialized health units | | | |
|--------------------------|------|----|------|-------|--------------------------|----|------|-------|
| | N | n | % | DK/DR | N | n | % | DK/DR |
| Register reported | 55 | 54 | 98.2 | 0 | 10 | 10 | 100 | 0 |
| Individual client charts | 54 | 51 | 94.4 | 1 | 10 | 10 | 100 | 0 |
| Register observed | 54 | 47 | 87 | 0 | 9 | 7 | 77.8 | 1 |

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

6.1 ANC – PPC service provision

All ECOS and specialized health units provided both antenatal and postpartum care services. On average, both facility types offered this service 18 days per month (median 20 days) (Table 6.1).

Table 6.1 ANC – PPC service provision

| | ECOS | | | Specialized health units | | |
|------------------------------|------|----|------------------|--------------------------|----|------------------|
| | N | n | mean(se) | N | n | mean(se) |
| ANC and PPC provision | 55 | 55 | 100 [†] | 10 | 10 | 100 [†] |
| Number of days/month offered | 55 | | 18.3(0.6) | 10 | | 18(2.4) |

[†] Percent reported

6.2 ANC routine activities

Table 6.2 shows the percent of facilities that reported offering the listed ANC activities on a routine basis. For various blood tests, the facility reported “not routinely done,” “routinely done in the facility,” “blood is drawn and sent to a laboratory,” “or patient is referred to perform the specified test.”

Table 6.2 Reported ANC routine activities

| | ECOS | | | | Specialized health units | | | |
|-----------------------------|------|----|------|-----------|--------------------------|----|-----|-----------|
| | N | n | % | DK/ DR | N | n | % | DK/ DR |
| Basic ANC activities | | | | | | | | |
| Weight | 54 | | | 1 | 10 | | | 0 |
| Not routinely done | | 1 | 1.9 | | | 0 | 0 | |
| Routinely done | | 53 | 98.1 | | | 10 | 100 | |
| Blood pressure | 54 | | | 1 | 10 | | | 0 |
| Not routinely done | | 2 | 3.7 | | | 0 | 0 | |
| Routinely done | | 52 | 96.3 | | | 10 | 100 | |
| Anemia testing | 55 | | | 0 | 10 | | | 0 |
| Not routinely done | | 12 | 21.8 | | | 0 | 0 | |
| Routinely done | | 7 | 12.7 | | | 6 | 60 | |
| Sample sent to the lab | | 1 | 1.8 | | | 2 | 20 | |
| Patient referred | | 35 | 63.6 | | | 2 | 20 | |
| Syphilis testing | 55 | | | 0 | 10 | | | 0 |
| Not routinely done | | 13 | 23.6 | | | 0 | 0 | |
| Routinely done | | 6 | 10.9 | | | 6 | 60 | |
| Sample sent to the lab | | 1 | 1.8 | | | 2 | 20 | |
| Patient referred | | 35 | 63.6 | | | 2 | 20 | |
| Blood typing | 55 | | | 0 | 10 | | | 0 |
| Not routinely done | | 13 | 23.6 | | | 0 | 0 | |
| Routinely done | | 6 | 10.9 | | | 6 | 60 | |
| Sample sent to the lab | | 1 | 1.8 | | | 2 | 20 | |
| Patient referred | | 35 | 63.6 | | | 2 | 20 | |
| Rh factor | 55 | | | 0 | 10 | | | 0 |
| Not routinely done | | 13 | 23.6 | | | 0 | 0 | |
| Routinely done | | 6 | 10.9 | | | 6 | 60 | |
| Sample sent to the lab | | 1 | 1.8 | | | 2 | 20 | |
| Patient referred | | 35 | 63.6 | | | 2 | 20 | |
| Protein in urine | 55 | | | 0 | 10 | | | 0 |
| Not routinely done | | 10 | 18.2 | | | 0 | 0 | |
| Routinely done | | 10 | 18.2 | | | 6 | 60 | |
| Sample sent to the lab | | 1 | 1.8 | | | 2 | 20 | |
| Patient referred | | 34 | 61.8 | | | 2 | 20 | |
| Glucose in urine | 55 | | | 0 | 10 | | | 0 |
| Not routinely done | | 13 | 23.6 | | | 2 | 20 | |
| Routinely done | | 6 | 10.9 | | | 4 | 40 | |
| Sample sent to the lab | | 1 | 1.8 | | | 2 | 20 | |
| Patient referred | | 35 | 63.6 | | | 2 | 20 | |

| More ANC activities | | | | | | | | |
|------------------------------|----|----|------|---|----|----|------|---|
| Tetanus toxoid vaccination | 55 | 31 | 56.4 | 0 | 10 | 10 | 100 | 0 |
| Rubella antibody testing | 55 | | | 0 | 10 | | | 0 |
| No testing | | 54 | 98.2 | | | 8 | 80 | |
| Testing pre-conception | | 1 | 1.8 | | | 2 | 20 | |
| Testing during pregnancy | | 0 | 0 | | | 0 | 0 | |
| Pap smear | 55 | 52 | 96.3 | 0 | 10 | 10 | 100 | 0 |
| STI screening and Rx | 55 | | | 0 | 10 | | | 0 |
| Not done | | 0 | 0 | | | 0 | 0 | |
| In-facility | | 45 | 81.8 | | | 10 | 100 | |
| Patient referred | | 10 | 18.2 | | | 0 | 0 | |
| Preventative antimalarial Rx | 55 | 12 | 21.8 | 0 | 10 | 2 | 20 | 0 |
| HIV counseling | 55 | 55 | 100 | 0 | 10 | 9 | 90 | 0 |
| Voluntary HIV testing | 55 | 45 | 81.8 | 0 | 10 | 10 | 100 | 0 |
| Toxoplasma screening and Rx | 55 | 9 | 16.4 | 0 | 10 | 4 | 40 | 0 |
| Bacteriuria screening and Rx | 55 | 51 | 92.7 | 0 | 10 | 10 | 100 | 0 |
| GBS screening and Rx | 55 | 17 | 30.9 | 0 | 9 | 6 | 66.7 | 1 |

Rx = treatment; GBS = Group B streptococcus; STI = sexually transmitted infection

6.3 ANC equipment

Table 6.3 details the percent of facilities where specific ANC equipment was observed on the day of the survey. In both facility types, fetal stethoscope was least prevalent.

Table 6.3 Observed ANC equipment

| | ECOS | | | Specialized health units | | |
|-----------------------------|------|----|------|--------------------------|----|-----|
| | N | n | % | N | n | % |
| Spotlight for pelvic exam | 55 | 30 | 54.5 | 10 | 10 | 100 |
| Blood pressure apparatus | 55 | 49 | 89.1 | 10 | 10 | 100 |
| Stethoscope | 55 | 50 | 90.9 | 10 | 10 | 100 |
| Fetal stethoscope | 55 | 16 | 29.1 | 10 | 5 | 50 |
| Adult weighing scale | 55 | 54 | 98.2 | 10 | 10 | 100 |
| Vaginal speculum – small | 55 | 30 | 54.5 | 10 | 10 | 100 |
| Vaginal speculum – medium | 55 | 39 | 70.9 | 10 | 10 | 100 |
| Vaginal speculum – large | 55 | 37 | 67.3 | 10 | 10 | 100 |
| Vaginal speculum – any size | 55 | 41 | 74.5 | 10 | 10 | 100 |
| Thermometer | 55 | 49 | 89.1 | 10 | 10 | 100 |

6.4 Composite ANC

The composite ANC indicator includes facilities that have, as observed on the day of the survey, the following basic ANC equipment: spotlight for pelvic exam, blood pressure apparatus, stethoscope, fetal stethoscope, adult weighing scale, and any size vaginal speculum (Table 6.4).

Table 6.4 Composite basic ANC services and equipment

| | ECOS | | | Specialized health units | | |
|---------------|------|----|---------|--------------------------|---|----------|
| | N | n | %(se) | N | n | %(se) |
| Composite ANC | 55 | 11 | 20(5.4) | 10 | 5 | 50(16.7) |

6.5 Home-based ANC

Most health facilities offer home-based ANC services, most of which consist of four or more home visits in the antenatal period. The visits include a physical exam and counseling on obstetric emergencies and healthy behavior.

Table 6.5 Home based ANC service provision

| | ECOS | | | | Specialized health units | | | |
|--------------------------------------|------|----|------|-------|--------------------------|---|------|-------|
| | N | n | % | DK/DR | N | n | % | DK/DR |
| Home based ANC | 50 | 52 | 94.5 | 0 | 10 | 9 | 90 | 0 |
| Number of ANC visits | 51 | | | 1 | 7 | | | 2 |
| 1 visit | | 1 | 2 | | | 1 | 14.3 | |
| 2 visits | | 9 | 17.6 | | | | | |
| 3 visits | | 4 | 7.8 | | | | | |
| > 3 visits | | 37 | 72.5 | | | 6 | 85.7 | |
| Component of ANC visits | 52 | | | 0 | 9 | | | 0 |
| Check fetal heart rate | | 50 | 96.2 | | | 8 | 88.9 | |
| Measure fundal height | | 49 | 94.2 | | | 8 | 88.9 | |
| Counsel on danger signs [†] | | 52 | 100 | | | 8 | 88.9 | |
| Advise on preparation for delivery | | 51 | 98.1 | | | 8 | 88.9 | |
| Counsel on breastfeeding | | 44 | 84.6 | | | 8 | 88.9 | |

[†] Pregnancy danger signs include signs of abortion, preeclampsia, etc.

6.6 Delivery preparations for the pregnant woman

Table 6.6 displays a list of advice that facility staff give to pregnant women pertaining to delivery; all methods are self-reported by the staff and not observed by the surveyors. The table includes a list of advice given to a pregnant woman pertaining to delivery. Both facility types particularly stress the importance of a transportation plan and the advantages of a delivery in a health facility.

Table 6.6 Advice to pregnant women in preparation for delivery

| | ECOS | | | Specialized health units | | |
|-----------------------------------|------|----|------|--------------------------|----|-----|
| | N | n | % | N | n | % |
| Plan for transportation | 55 | 55 | 100 | 10 | 10 | 100 |
| Set aside emergency funds | 55 | 37 | 67.3 | 10 | 1 | 10 |
| Supplies to bring to the facility | 55 | 37 | 67.3 | 10 | 10 | 100 |
| Supplies to have at home | 55 | 39 | 70.9 | 10 | 8 | 80 |
| In-facility delivery | 55 | 44 | 80 | 10 | 9 | 90 |
| Other | 55 | 5 | 9.1 | 10 | 1 | 10 |

6.7 Emergency obstetric care transfer and referral

6.7.1 Referral and transport

Table 6.7 displays the details and logistics regarding transfer/referral systems for emergency obstetric cases. In ECOS, 61.8% transfer to their facility and/or to another facility. In those facilities that refer, 86.8% always allow an accompanying staff member with the woman. Only a few ECOS have a vehicle, however, the majority radio or phone the other facility. Women arriving to ECOS usually do so by a public or private car/bus. At least 70% of specialized health units transfer women with obstetric emergencies to their facility and/or to another facility. Women with an obstetric event arriving at a specialized health facility do so most commonly by ambulance or by private vehicle.

Table 6.7.1 Referral and transport of emergency obstetric cases

| | ECOS | | | Specialized health units | | |
|--|------|----|------|--------------------------|----|-----|
| | N | n | % | N | n | % |
| Transfer/referral system | | | | | | |
| Transfer to this facility | 55 | 6 | 10.9 | 10 | 1 | 10 |
| Transfer to another facility | 55 | 8 | 14.5 | 10 | 1 | 10 |
| Both | 55 | 20 | 36.4 | 10 | 5 | 50 |
| None | 55 | 21 | 38.2 | 10 | 3 | 30 |
| Transportation modes | | | | | | |
| Ambulance | 55 | 6 | 10.9 | 10 | 5 | 50 |
| Private car/bus | 55 | 20 | 36.4 | 10 | 6 | 60 |
| Public car/bus | 55 | 15 | 27.3 | 10 | 3 | 30 |
| Motorcycle (public/private) | 55 | 1 | 1.8 | 10 | 0 | 0 |
| Bicycle | 55 | 1 | 1.8 | 10 | 0 | 0 |
| People carry the patient | 55 | 0 | 0 | 10 | 0 | 0 |
| Animals carry the patient | 55 | 0 | 0 | 10 | 0 | 0 |
| Other | 55 | 0 | 0 | 10 | 4 | 40 |
| Outside referral | 55 | 53 | 96.4 | 10 | 10 | 100 |
| Accompanying staff | 53 | | | 10 | | |
| Yes, always | | 46 | 86.8 | | 9 | 90 |
| Sometimes | | 5 | 9.4 | | 1 | 10 |
| Never | | 2 | 3.8 | | 0 | 0 |
| Emergency transfer/referral logistics | | | | | | |
| Vehicle | 53 | 2 | 3.8 | 10 | 2 | 20 |
| Fuel set aside | 53 | 3 | 5.7 | 10 | 0 | 0 |
| Radio or phone the other facility | 53 | 49 | 92.5 | 10 | 8 | 80 |

6.7.2 Time to referral facility

Table 6.7.2 present estimates on the time needed to get to the nearest referral facility. The table also includes estimates of the time needed to request a vehicle and transfer the patient; this time request

starts at the time a call is made to obtain a vehicle and stops at the time the patient has been transferred to the referral center.

Table 6.7.2 Referral travel time

| | ECOS | | | | Specialized health units | | | |
|--|------|-------|--------|-------|--------------------------|------|--------|-------|
| | N | mean | median | DK/DR | N | mean | median | DK/DR |
| Time to reach the nearest facility (mins) | | | | | | | | |
| Dry season | 54 | 37.9 | 30 | 1 | 10 | 29 | 17.5 | 0 |
| Wet season | 53 | 52.1 | 40 | 2 | 10 | 38.5 | 25 | 0 |
| Time for a requested vehicle to arrive, transfer the patient, and arrive at the referral facility (mins) | | | | | | | | |
| Dry season | 51 | 84.2 | 60 | 4 | 10 | 91 | 60 | 0 |
| Wet season | 50 | 112.3 | 90 | 5 | 10 | 110 | 67.5 | 0 |

6.8 Traditional birth attendants (TBA)

Only 36.4% of ECOS and 50% of specialized health facilities have a formal relation with traditional birth attendants (TBA). Of those ECOS, 65% supervise TBAs, and of those specialized health centers 80% supervise the TBAs (Table 6.8). ECOS have a relationship with two to three TBAs on average; specialized units have a relationship with five to six TBAs.

Table 6.8 Traditional birth attendants

| | ECOS | | | | Specialized health units | | | |
|---|------|----|-----------------------|-------|--------------------------|---|-----------------------|-------|
| | N | n | %(se) | DK/DR | N | n | %(se) | DK/DR |
| Relationship with facility | 55 | 20 | 36.4 | 0 | 10 | 5 | 50 | 0 |
| Number of TBAs in facilities that reported a relationship with TBAs | 18 | | 2.5(0.5) [†] | 2 | 3 | | 5.3(1.8) [†] | 2 |
| Supervision of TBAs | 20 | 13 | 65 | 0 | 5 | 4 | 80 | 0 |
| TBAs refer to this facility | 55 | 19 | 34.5 | 0 | 9 | 5 | 55.6 | 1 |

[†]Mean and standard error presented

6.9 Home-based postpartum care (PPC) services

In general, both ECOS and specialized health units offer home-based postpartum care services (Table 6.9). Each visit usually includes examination of mother and child, counseling on newborn care and exclusive breastfeeding, and delivering important micronutrients and vitamin A.

Table 6.9 Home-based PPC service provision

| | ECOS | | | | Specialized health units | | | |
|--|------|----|------|-------|--------------------------|---|------|-------|
| | N | n | % | DK/DR | N | n | % | DK/DR |
| Home-based PPC | 55 | 54 | 98.2 | 0 | 10 | 9 | 90 | 0 |
| Number of PPC visits | 54 | | | 1 | 8 | | | 1 |
| 1 visit | | 8 | 15.1 | | | 1 | 12.5 | |
| 2 visits | | 25 | 47.2 | | | 4 | 50 | |
| 3 visits | | 14 | 26.4 | | | 1 | 12.5 | |
| > 3 visits | | 6 | 11.3 | | | 2 | 25 | |
| Components of PPC visits | 54 | | | 0 | 9 | | | 0 |
| Examine mother and child for danger signs | | 54 | 100 | | | 9 | 100 | |
| Counsel about newborn care and exclusive breastfeeding | | 52 | 96.3 | | | 9 | 100 | |
| Deliver iron tablets and vitamin A | | 43 | 79.6 | | | 8 | 88.9 | |
| Other | | 4 | 7.4 | | | 8 | 88.9 | |

6.10 Record-keeping

Table 6.10 lists both the reported and observed registers for both antenatal and postpartum care. Most ECOS and all specialized health units reported maintaining a register to document maternal visits. In addition, most ECOS and all specialized health units reported keeping individual records for each patient.

Table 6.10 Record-keeping in maternal care

| | ECOS | | | | Specialized health units | | | |
|-----------------------|------|----|------|-------|--------------------------|----|------|-------|
| | N | n | % | DK/DR | N | n | % | DK/DR |
| Antenatal care | | | | | | | | |
| Reported ANC register | 55 | 53 | 96.4 | 0 | 10 | 10 | 100 | 0 |
| Individual ANC charts | 55 | 53 | 96.4 | 0 | 10 | 10 | 100 | 0 |
| Observed ANC register | 53 | 50 | 94.3 | 0 | 10 | 10 | 100 | 0 |
| Postpartum care | | | | | | | | |
| Reported PPC register | 55 | 52 | 96.3 | 0 | 10 | 10 | 100 | 0 |
| Observed PPC register | 52 | 47 | 90.4 | 0 | 9 | 8 | 88.9 | 1 |

Chapter 7 INFECTION CONTROL

7.1 Equipment protection, cleanliness, proper disposal and storage

Table 7.1 lists basic procedures important for infection control at the facility and details each criteria.

Table 7.1 Equipment protection, cleanliness, proper disposal and storage

| | ECOS | | | | Specialized health units | | | |
|--|------|----|------|-------|--------------------------|----|-----|-------|
| | N | n | % | DK/DR | N | n | % | DK/DR |
| Equipment protected ¹ | 54 | 49 | 90.7 | 1 | 10 | 10 | 100 | 0 |
| Cleanliness ² | 55 | 46 | 83.6 | 0 | 10 | 10 | 100 | 0 |
| Proper disposal ³ | 54 | 42 | 77.8 | 1 | 10 | 9 | 90 | 0 |
| Proper storage of equipment ⁴ | 55 | 47 | 85.5 | 0 | 10 | 10 | 100 | 0 |

¹ Equipment is protected from sunlight and water and is off the floor

² Area is clean including floor, counter/tables/desks, and walls

³ No sharps outside the container; sharps container not damaged or overflowing

⁴ Sterile/decontaminated equipment is wrapped in a sterile cloth, stored in a sterile container, in an autoclave, clean and covered, or in a container with disinfectant

7.2 Decontamination and sterilization

Table 7.2 list techniques used for decontaminating and sterilizing equipment. The most commonly used technique for sterilization is autoclaving. 35% of ECOS sterilize their equipment outside the facility.

Table 7.2 Decontamination and sterilization

| | ECOS | | | Specialized health units | | |
|--|------|----|------|--------------------------|---|----|
| | N | n | % | N | n | % |
| Decontamination | | | | | | |
| Soaked in disinfectant then scrubbed with water and soap | 55 | 19 | 34.5 | 10 | 6 | 60 |
| Scrubbed with soap and water then soaked in disinfectant | 55 | 17 | 30.9 | 10 | 7 | 70 |
| Only scrubbed with soap and water | 55 | 3 | 5.5 | 10 | 3 | 30 |
| Only soaked in disinfectant | 55 | 7 | 12.7 | 10 | 3 | 30 |
| Cleaned not scrubbed with soap and water | | 17 | 30.9 | 10 | 3 | 30 |
| Other | 55 | 5 | 9.1 | 10 | 1 | 10 |
| No equipment ever reused | 55 | 0 | 0 | 10 | 0 | 0 |
| Sterilization | | | | | | |
| Dry heat sterilization | 55 | 2 | 3.8 | 10 | 3 | 30 |
| Autoclaving | 55 | 34 | 65.4 | 10 | 7 | 70 |
| Boiling | 55 | 0 | 0 | 10 | 0 | 0 |
| Steam sterilization | 55 | 0 | 0 | 10 | 0 | 0 |
| Chemical sterilization | 55 | 2 | 3.8 | 10 | 3 | 30 |
| Processed outside the facility | 55 | 18 | 34.6 | 10 | 0 | 0 |

Table 7.3 details various infection control items observed at facilities. The most commonly observed item in both facilities were disposable latex gloves.

7.3 Infection control items

Table 7.3 Observed Infection control items

| | ECOS | | | Specialized health units | | |
|---|------|----|------|--------------------------|----|-----|
| | N | n | % | N | n | % |
| Running water | 55 | 37 | 67.3 | 10 | 10 | 100 |
| Other running water (bucket with tap or pour pitcher) | 55 | 19 | 34.5 | 10 | 3 | 30 |
| Water in bucket or basin (water reused) | 55 | 20 | 36.4 | 10 | 3 | 30 |
| Single-use hand-drying towels | 55 | 4 | 7.3 | 10 | 3 | 30 |
| Waste receptacle with lid and plastic liner | 55 | 37 | 67.3 | 10 | 9 | 90 |
| Sharps container | 55 | 48 | 87.3 | 10 | 10 | 100 |
| Disposable latex gloves | 55 | 50 | 90.9 | 10 | 10 | 100 |
| Disposable non-latex gloves | 55 | 47 | 85.5 | 10 | 10 | 100 |
| Already mixed decontamination solution | 55 | 33 | 60 | 10 | 8 | 80 |
| Auto-disposable syringes | 55 | 42 | 76.4 | 10 | 10 | 100 |
| Private room | 55 | 34 | 61.8 | 10 | 9 | 90 |
| Auditory and visual privacy | 55 | 35 | 63.6 | 10 | 7 | 70 |
| Examination table | 55 | 28 | 50.9 | 10 | 9 | 90 |

Conclusion

As part of the Salud Mesoamérica 2015 Initiative (SM2015), data was collected from 65 primary health care facilities in the poorest regions in El Salvador. The first survey collection phase was intended to measure baseline indicator estimates and set targets for the initiative. The baseline facility survey included both a questionnaire and an observation checklist. This survey included questions on the following indicators: facility composition and infrastructure, child health, antenatal and postnatal care, family planning, vaccination, and infection control. The baseline survey was conducted using computer-assisted survey instruments (CAPI) on netbooks. This technique reduced interview time as compared to paper-based surveys, reduced data-collection errors, and allowed better control of questions and their relevance to various health facilities of different scopes. Survey conduct was continuously monitored by IHME via a secured Internet link with the field teams. Data collected were compared and combined with household data to create a comprehensive picture of the situation in the target areas. In the future, follow-up surveys will be conducted to assess and monitor change in select indicators. This initial data quality report will be used as a baseline measure for the health facilities. Through the SM2015 baseline activities in El Salvador we were able to document the prevalence of several indicators from our household and facility surveys. The current report summarizes some of the findings, and the available dataset has a wealth of information. This valuable activity allows the IDB to work with the government of El Salvador to monitor progress in these health indicators as the intervention is rolled out in the area. The availability of a baseline survey in conjunction with future follow-up surveys will enable the government, donors, and IDB to measure the impact of the intervention.