



Imunizasaun Proteje Labarik

Baseline Assessment Report

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List of Abbreviations

BSP	: Basic Service Package
CCT	: Clinic Café Timor
CCVM	: Cold Chain and Vaccine Management
CHC	: Community Health Center
cMYP	: Comprehensive Multi-year Plan (for immunization)
CRS	: Catholic Relief Services
CSO	: Civil Society Organization
DHC	: District Health Council
DHS	: District Health Services
DPHO	: District Public Health Officer
EPI	: Expanded Program on Immunization
FBO	: Faith-Based Organization
EVM	: Essential Vaccine Management
HAI	: Health Alliance International
HMIS	: Health Management Information System
HP	: Health Post
ICRC	: International Committee of Red Cross
IMCI	: Integrated Management of Childhood Illness
IIP	: Immunization In Practice
IPL	: Imunizasaun Proteje Labarik (Immunization Protects Children project)
MCC-TPI	: Millennium Challenge Corporation – Threshold Project on Immunization
MCHIP	: Maternal and Child Health Integrated Program
MDM	: <i>Medicos do Mundo</i>
MOH	: Ministry of Health
MSI	: Marie Stopes International
NGO	: Non-governmental Organization
PSF	: <i>Promotor Saúde Familiar</i> (Community Health Volunteer)
RDTL	: Democratic Republic of Timor-Leste
RSF	: <i>Registro Saúde Familiar</i> (Family Health Register)
RED	: Reaching Every District (approach)
SISCa	: <i>Serviço Integrado da Saúde Comunitária</i>
SS	: Supportive Supervision
TAIS	: <i>Timor-Leste Assistência Integrada Saúde</i>
TLDHS	: Timor-Leste Demographic and Health Survey
UNFPA	: United Nations Population Fund
UNICEF	: United Nations Children’s Fund
USAID	: United States Agency for International Development
WHO	: World Health Organization

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Disclaimer

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Executive Summary

Funded through a USAID Threshold Grant from the Millennium Challenge Corporation, the Imunizasaun Proteje Labarik (IPL) project (2011-2013) is assisting the Democratic Republic of Timor-Leste to increase DTP3 and measles immunization rates nationally. The project has directly targeted the seven districts (Ainaro, Baucau, Dili, Ermera, Liquiça, Manufahi and Viqueque), where more than 59% of Timorese children under the age of one reside.

Timor-Leste continues to report the lowest administrative and official immunization coverage in the WHO/SEARO region. The 2009/2010 Timor-Leste Demographic and Health Survey (TLDHS) found immunization coverage for Timor-Leste at 66.7% for DTP3 and 68.2% for measles. The Ministry of Health (MOH) has recently reported a slight downward trend of immunization coverage.

In order to fully understand the context for IPL implementation and to obtain baseline values for key indicators, the project conducted a baseline study that included a rapid health facility assessment of immunization services in the seven districts and interviews with 250 chefes suco, 34 sub-district administrators or their representatives, 34 community health centers (CHC) directors and vaccinators, and all District Public Health Officers (DPHOs). The data collection took place during May and June 2011. The team faced enormous challenges during collecting data, including, heavy rainfall, landslides, an unexpected measles outbreak, poor recording and data reporting systems.

Utilizing data from EPI registers for the first quarter of 2011 (January to March), this study team tried to calculate immunization coverage by suco. In order to identify the sub-districts with poor immunization coverage and to help direct more intensive assistance, all sucos' data were compiled by sub-district. These data show an incredible variation in coverage levels among sucos and sub-district as well as a wide gap between coverage recorded in registers and coverage reported in the MOH's health management information system (HMIS).

Community participation: This baseline highlighted weak community participation and mobilization for immunization and other health programs. Only 10 of 250 suco councils had established health committees, of which eight had received an orientation on immunization. To offer integrated health services for *Serviço Integrado da Saúde Comunitária* (SISCa). Although almost all chefes suco knew about the functions of SISCa, almost two-thirds of them were unaware of the SISCa schedule. The *Promotor Saúde Familiar* (PSFs), the frontline health workforce in the Timor-Leste health system, must play a crucial role if Ministry of Health is to reach its vision of "Healthy East Timorese people in a healthy Timor-Leste." Almost nine of ten PSFs were found active, that is working to support SISCa and offering some health promotion in the community. However, none had received any orientation on immunization. The *Registo Saúde Familiar* (RSF) (family health register), to be maintained by community leaders, is considered a priority tool by the MOH. However, in fewer than one in 10 sucos, RSFs were found up-to-date.

Local government involvement. District Health Councils are to be established by the District Health Services (DHS) to coordinate and guide health actions by the government and its partners. Only four of seven DHS had established District Health Councils and only the ones in Ainaro, Ermera, and Liquiça were found to meet at least quarterly. All focus DHS except for Viqueque had regular program review meetings involving CHC directors, NGOs, and other stakeholders. Most took place quarterly except for Liquiça, which was monthly.

Access to communication technology: 80% of suco council offices were found with mobile phone coverage. Baucau and Manufahi districts had lower-than-average coverage, with 56% and 45% respectively. Health facilities are supposed to have a functional remote radio but only 19 out of 156 visited health facilities were found with functional radio, and 11 health facilities neither have any functioning radio nor mobile phone coverage. One-quarter of health facilities were not able to communicate with their referral health facility by either radio or mobile phone.

SISCa locations: The MOH has given special emphasis to strengthen SISCa in order to deliver integrated health services in hard-to-reach communities. However, the reality on the ground too often deviates from the implementation guidelines. 24 of 176 SISCa were found within 1 km of their nearby health facility, and about 99 were located within 5 kms. Most SISCa took place at the suco council's office regardless of its distance from and ease of access to health services. All focus districts except for Dili had outreach activities in remote communities, mostly focused on nutrition.

Civil Society Organizations (CSOs) can play a role in service delivery, political action, and in policy-making either by filling gaps left by the public authorities or complementing existing activities in health service delivery. Almost all sub-districts have the support of one or more CSOs, which include NGOs (Non-governmental Organizations), CBOs (Community-Based Organizations), and FBOs (Faith-Based Organizations). Nevertheless, the assessment found that most of the NGOs working on health follow their own, rather than the MOH's vision and mission. The MOH could benefit by harmonizing relationships and service delivery with that of NGOs.

Human resources: The assessment found both a shortage of human resources for immunization and maldistribution of staff favoring cities and towns. Moreover, existing staff lack immunization training: 23 health facilities, including three CHCs, were found without staff trained on Immunization in Practice (IIP), and 32 health facilities, including seven CHCs, without staff trained on Cold Chain and Vaccine Management (CCVM). Nine health facilities were identified whose staff had not received training on either IIP or CCVM. All focus DHS are staffed with DPHO for Maternal and Child Health; three districts had separate DPHOs assigned for EPI only and four others had an Assistant DPHO for EPI.

The cold chain: Most CHCs were found to have functioning refrigerators, although CHC St. Joaquin in Maubesse and most health posts lacked a functioning refrigerator. Supportive supervision (SS) visits and the recent Effective Vaccine Management (EVM) assessment found

that many health facilities could not maintain the cold chain properly nor fix minor problems with their refrigerators. Nineteen health facilities with functioning refrigerators lacked staff trained on cold chain maintenance and repair. Staff often called on central level technicians to fix those minor problems.

Micro-plans at CHC and DHS levels are the mechanism through which to improve efficiency and effectiveness of immunization at those levels. This assessment found that only one-fifth of health facilities and only Liquica and Viqueque DHS had micro-plans for 2011, none of which followed the national strategy Reaching Every District (RED) approach.

Daily vaccination: The national EPI policy and Basic Service Package (BSP) recommend that vaccination be available daily at all CHCs. The assessment found only 17 of 34 CHCs offer all antigens daily, whereas 18 CHCs offer daily BCG services, 17 measles, and 23 DPT-HepB. The biggest problem seems to be in Dili, but at least one CHC lacks daily vaccination in most districts. BCG vaccine is given daily by just over half of the CHCs and other antigens by slightly more. This is undoubtedly one of the reasons for low immunization coverage in Timor-Leste.

Vehicle management: Because of the need for SISCa and outreach, proper vehicle management plays a critical role in enabling higher immunization coverage. Although 44% of CHCs were found with a proper vehicle management system, a few districts were found with extremely poor management; for example, 0%, 17%, and 20% of CHCs in Ainaro, Baucau, and Ermera respectively. Six of seven DHS have both functional vehicle and vaccine management systems.

This assessment provided a valuable description of immunization services in over half of the country and the basis for tracking key immunization indicators over the next few years.

1. Introduction

Both the Timor-Leste Demographic and Health Survey (TLDHS 2009-10) and Population Census 2010 describe tremendous progress in health and development over the past decade. Access to basic health services has improved; immunization coverage for children 12-23 months rose; an increasing number of births are supervised by health care professionals; the contraceptive prevalence rate increased and the total fertility, population growth and infant mortality rates declined significantly.

The Government of Timor-Leste and its Ministry of Health (MOH) are committed to improving the health status of all East Timorese, and the Expanded Program on Immunization (EPI) is considered central to this. The MOH is working with its different partners to overcome enormous challenges and increase immunization coverage. The MOH prioritizes reaching unreached communities by revitalizing the PSFs (Community Health Volunteers), strengthening community mobilization, and ensuring active community participation.

The Millennium Challenge Corporation's Threshold Project on Immunization (MCC-TPI), *Imunizasaun Proteje Labarik* (IPL), supports the MOH in Timor-Leste to improve immunization coverage through the government health system. The project is administered by John Snow Inc. via USAID's MCHIP project. A few months after beginning operations, IPL conducted a study that to provide a reliable baseline assessment of the current state of the immunization and to provide a basis for comparison. This paper describes the context of this study, its methodological approach and its findings on the current state of immunization in the country.

1.1. Background

The Democratic Republic of Timor-Leste covers the eastern half of the island of Timor, the nearby islands of Atauro and Jaco, and Oecussi, an exclave within Indonesian West Timor. The small country of 5,376 square miles is located about 400 miles northwest of Darwin, Australia. The 2010 census enumerated 1,066,409 people with 31,219 children under one year of age¹.

Timor-Leste's health system does not have the multiple layers that health systems in most other countries do. The MOH provides medical services from the national hospital in Dili, five referral hospitals, 66 community health centers (CHCs), and 192 health posts (HPs). HPs serve as an extension of the CHC in villages (*sucos*) serving 1,000-5,000 people (200-1,000 households), providing basic primary health care services. Some HPs are staffed by a resident midwife, nurse, or assistant nurse; others function only during outreach. In 2008, the SISCa (*Serviço Integrado da Saúde Comunitária*) was added to the system structure to offer integrated health services, including immunization, in every community down to the *suco* level. *Suco* councils coordinate all sector activities and programs at village level. Through the *suco* councils, the Ministry of State Administration has overall responsibility for maintenance of *suco* population

¹National Statistics Directorate (NSD) of Ministry of Finance, Democratic Republic of Timor-Leste, and United Nations Population Fund (UNFPA), (2010). *Population and Housing Census*. Dili, Timor-Leste

registers, which are central to all the sectors that require this information for the planning and monitoring of program activities. Access to health facilities is difficult for many people: average walking distance from household to nearest health facility is about 70 minutes, and during the wet season even short distances can become impassable². The study on “Health Care Seeking Behavior” described how indigenous knowledge and practices regarding childhood illnesses impacts on accessing services³.

After independence from Indonesia in 1999, routine childhood immunization services were re-established. Today, most immunizations are given at CHCs and during monthly SISCa sessions. WHO, UNICEF, IPL, and the National Health Training Institute coordinate support to the MOH’s EPI through a national EPI Working Group. The efforts of the Working Group led to an initial national EPI policy and strategy, which was approved in 2004 and revised in early 2007. A comprehensive Multi-year Plan for immunization (cMYP), covering the years 2011-2015, was finalized by the Working Group and approved by the MOH in 2011.

TLDHS 2009-2010 found immunization coverage for one-year-olds in Timor-Leste to be 66.7% for completed diphtheria, tetanus and pertussis (DTP3) and 68.2% for measles. A particularly alarming finding was that 22.5% of one-year-olds had never received a vaccination. This means that many infants and young children are seriously exposed to risks of preventable disease and death.

Although the EPI has made significant progress since independence, issues pertaining to both immunization coverage and quality persist. The cold chain needs improvement and expansion; data collection and use continue to be serious problems; and community participation in health service is improving but still weak. According to the 2008 national EPI review, more than 20% of Timor-Leste’s communities have difficulty accessing routine immunization services, and there are insufficient health personnel to handle both facility-based and community outreach activities. Adding to the pressure on staff is the fact that the district and CHC staff responsible for EPI are also responsible for other programs. In addition, despite increased refresher training and supportive supervision in the past few years, vaccinators lack the necessary interpersonal communication skills needed to prevent drop-out.

1.2. Overview of the Project

IPL’s specific objective is to assist the MOH to increase DPT3 and measles immunization rates nationally. The project targets seven districts (Ainaro, Baucau, Dili, Ermera, Liquiça, Manufahi and Viqueque) where more than 59% of Timorese children under the age of one reside. Reaching the project goal of a national average of 81.5% DPT3 and measles coverage of children below one year of age by 2013 is a key criterion for Timor-Leste’s eligibility for

² The Ministry of Health (2002). *Health Profile, Democratic Republic of Timor-Leste*. Dili, Timor-Leste.

³ Zwi, A.B., BIGNAULT, I., Glazebrook, D., Correia, V., Bateman, C.R., Ferreira, E. and Pinto, B. (2009). *Timor- Leste Health Care Seeking Behaviour Study*. The University of New South Wales, Sydney.

Millennium Challenge Compact funding. A complementary goal is to strengthen the EPI so that it is able to sustain and expand the gains achieved.

MCC-TPI is helping the MOH improve its ability to achieve the medium-term priorities set out in the cMYP for 2009-2013, which in turn will help the country reduce child morbidity and mortality associated with vaccine-preventable diseases. To achieve the project's ambitious goals, IPL collaborates with the MOH to:

- Strengthen service delivery to identify and reach unimmunized children at least five times a year,
- Strengthen district and CHC-level program management capacity and technical skills among government health personnel,
- Strengthen SISCa as an effectively functioning community-based outreach mechanism for providing immunization and other health services, and
- Strengthen program monitoring and reporting through better collection of routine data and the routine analysis and use of data for decision-making and targeted action.

IPL uses approaches intended to reach the desired immunization coverage for infants and children and that will endure beyond the life of the MCC-TPI. These approaches:

- Build on the existing Ministry policies, plans and delivery system, especially the SISCa;
- Rely on community-level identification and mobilization of families to bring children for immunization; and
- Improve health workers' ability to manage and monitor the immunization delivery system through use of coverage data.

The Timor-Leste MCC-TPI began operations the first week of April 2011; it was inaugurated officially at a colorful launching ceremony on 21st June 2011.

2. The Baseline Assessment

2.1 Study Objectives

IPL conducted a baseline assessment study in May and July 2011 with the following objectives:

- I. Collect basic information from different health facilities, sucos, sub-districts, and DHS level related to immunization services and coverage, training and community participation.
- II. Describe the community and health systems in the project focus areas
- III. Analyze data in order to identify the sub-districts and sucos with poor immunization coverage
- IV. Identify challenges that need to be addressed in order to improve routine immunization coverage.

The study results have provided IPL with a good basis for implementation and an essential baseline of the indicators described in the Program Monitoring Plan (PMP).

2.2 Methods

The basic assessment methods used were interviews and observations. In total, 34 CHCs and 105 HPs were visited in seven focus districts. Two hundred fifty chefes suco, 34 sub-district administrators or their representatives, 34 CHC directors and vaccinators, and all DPHOs of the seven focus districts were interviewed.

After examining assessment tools from various organizations and countries, IPL drafted semi-structured questionnaires for different levels, which were reviewed by project team members, pretested, finalized and used. Special attention was given to cultural sensitivities in phrasing questions.

- i. Suco level: The primary respondent was the chefe suco; if s/he was not around, the secretary of suco council or any other member of suco council was interviewed. Information was also collected and verified from the CHC.
- ii. Health facility level: The primary respondent was the CHC Director; if s/he was not available, the vaccinator or DPHO/EPI or Assistant DPHO/EPI was interviewed. For checking the vehicle management system, the multi-function car/ambulance and vaccinator's motorcycle were checked physically on the day of visit.
- iii. Sub-district level: The primary respondent was the Sub-district Administrator; if s/he was not available, the Deputy Sub-district Administrator was interviewed. Some of the information collected was verified at the CHC.

- iv. District level: The primary respondent was the Director of DHS was interviewed, and if s/he was not available, the Deputy Director or DPHO/EPI or Assistant DPHO/EPI was interviewed. To assess the vehicle management system, multi-function car/ambulance and DPHO-EPI's motorcycle were checked physically on the day of the visit.

All participants were informed of the study objectives and procedures and participated voluntarily. Ethical issues were considered, such as, informed verbal consent from respondents and/or the local health authority before initiating the instrument. Anonymity of the respondents and confidentiality of information identifying the respondent were maintained. No physical, psychosocial, chemical or biological intervention was done on the human subjects involved directly or indirectly in the study process.

Data from this study were analyzed with Microsoft Excel using a pivotal table. Some data were summarized in graphs designed on Microsoft Excel.

2.3 Limitations and Challenges

Because the intent of the study was to inform internal planning, implementation and monitoring, a protocol was not presented to the Cabinet of Health Research and Development Technical and Ethical Review Committee of the MOH to get ethical approval. However, the EPI Department of MOH and all focus DHS were informed and involved.

- Due to poor road condition and heavy rain, the team could not reach seven sucos in Manufahi, four in Ermera, three in Viqueque, two in Ainaro, two in Baucau, and one in Liquiça.
- A few health posts were found open due to unavailability of health staff; some of them were on leave, and some were attending SISCa or other health activities: two in Dili, four in Ermera, Manufahi, and Viqueque each, one in Baucau and Ainaro each, and nine in Liquiça.
- Time was very limited time considering the number of sucos, sub-districts and health facilities; moreover, the team was involved in measles catch-up activities.
- EPI registers were not available in some facilities; a few health facilities were still using the old register and a few others were kept at PSFs' homes. Therefore, it was not possible to obtain immunization coverage of all sucos by antigen.

3. Findings and Implications

3.1 District Health Service (DHS) level

The role of the District Health Management Team is to plan, supervise, coordinate, monitor, report and evaluate all health activities at the district level. The team carries out administrative, financial and logistical functions that fall under their jurisdiction⁴. The success of the EPI program also depends on DHS' effective stewardship and their ability to foster multi-sectoral collaboration that spans the public, private and voluntary sectors. This baseline study explored the stewardship roles of DHS and multi-sectoral involvement.

3.1.1 Stewardship Role of DHS

Only four of seven DHS established District Health Councils (DHCs). Only the DHCs in Ainaro, Ermera and Liquiça DHS met at least quarterly. All focus DHS, except for Viqueque, have regular program review meetings, usually quarterly, except for the Liquiça DHS, which meets monthly. Micro-plans for EPI are crucial and all DHS are supposed to have their own micro-plans; however, only the Liquiça and Viqueque DHS were found to have EPI micro-plans for 2011 (Table 1).

Table 1: District Indicators of Stewardship

Name of District	Is there any District Health Council (DHC)?	Frequency of DHC meeting	Does this DHS have any program review meeting involving chefe CHCs, NGOs and other stakeholders?	Frequency of program review meeting?	Did this DHS have any micro-plan for EPI for 2011?
Ainaro	Yes	Quarterly	Yes	Quarterly	No
Baucau	No	Not applicable	Yes	Quarterly	No
Dili	No	Not applicable	Yes	Quarterly	No
Ermera	Yes	Quarterly	Yes	Quarterly	No
Liquiça	Yes	Quarterly	Yes	Monthly	Yes
Manufahi	No	Not applicable	Yes	Quarterly	No
Viqueque	No	Not applicable	No	N/A	Yes

3.1.2. Resource Management

All DHS were assessed for functional vehicle and vaccine management systems. Only Manufahi lacked a functional vehicle management system, and only Viqueque lacked proper vaccine management. The district level was much better than the CHC level on these indicators.

⁴ The Ministry of Health (2007). Basic Services Package For Primary Health Care and Hospitals. Dili, Timor-Leste.

3.1.3 Availability of Human Resources

Health services, a labor intensive activity, depend ultimately on the performance of their workers⁵. Improving the availability and performance of health workers, especially of DPHOs, is central to rebuilding health services, including EPI. The baseline study looked into the availability and training status in EPI of the district-based EPI focal person. Table 2 shows that all focus DHS were staffed with DPHOs for Maternal and Child Health. Three districts were found with separate DPHOs assigned to EPI only. In the others, the DPHO for MCH handled EPI along with an Assistant DPHO for EPI.

Table 2: Availability of DHS-based Staff for Immunization

Name of District	DPHO-EPI only	DPHO MCH	Assistant DPHO-EPI
Ainaro	1	1	0
Baucau	1	1	0
Dili	0	1	1
Ermera	1	1	0
Liquiça	0	1	1
Manufahi	0	1	1
Viqueque	0	1	1
Total	3	7	4

3.2 Suco Level

3.2.1 Health Committee in Suco Council

Aiming to create a supportive environment for behavior change through developing partnerships with relevant organizations, the MOH set a target to establish a health committee in each suco⁶. Table 3 shows that only 4% of the suco councils in the seven focus districts had health committees. This indicator varied from district to district; for example, 13% in Liquiça, 7% in Baucau, 6% in Viqueque, and 2% in Ermera. Ainaro, Dili, and Manufahi districts did not have a suco council but did have a health committee. Unfortunately, only 3% of them received orientation on immunization.

Multi-sectoral collaboration with the MOH, as well as development of clear terms of reference, roles and supporting the maintenance of the operation, could facilitate establishment health committees as an avenue for community participation.

⁵ Malcolm Segall (2003). District health systems in a neoliberal world: a review of five key policy areas. *International Journal of Health Planning and Management*; 18: S5–S26.

⁶ The Ministry of Health (2011). *National Health Sector Strategic Plan 2011-2030*. Dili, Timor-Leste.

3.2.2 Knowledge of Suco Council Members about SISCa

Table 3 shows that almost all chefe sucos knew about SISCa and its functions; however, many chefes suco (60%) were unaware of the SISCa schedule. The failure to better engage chefes suco in mobilizing families to attend SISCa is a missed opportunity to increase attendance and extend the benefits of SISCa. Informing chefes suco should be an integral part of all micro-plans. In cases when chefes have cell phones, the CHC could simply send them a reminder SMS two or three days before each SISCa.

3.2.3 PSF (Promotor Saude Familiar) and Registro Saúde Familiar

Table 3 shows that 89% of PSFs were active. Ainaro, Ermera, Liquiça, and Viqueque districts have about 85% active PSFs, whereas Baucau and Manufahi have 98% and 100% respectively. Potentially, PSFs could play a key role in stimulating demand for immunization as well as in tracking dropouts and reaching unimmunized children. Unfortunately, none of them have been trained in immunization or oriented on these tasks.

The Registro Saúde Familiar (RSF) is considered a key tool by the MOH. Planning to socialize this community-based vital registration system nationwide, the HMIS the MOH's health information department recently revised and printed the register. Table 3 shows that in the sucos that had introduced RSFs, only 8% of the registers were kept up to date.

PSFs have the potential to play a vital role in raising health awareness and mobilizing the community to utilize services. To become more effective, PSFs need more training (in immunization and other areas) and other capacity building. IPL might consider working with other partners to provide such training. The question and answer booklet, immunization schedule tool, and other resources could be used to build their understanding. PSFs may also need more compensation. Unfortunately, due to the irregularity of their small routine incentives and their lack of salary, there is a fairly high dropout among PSFs. Their continually expanding workload also contributes to the need for the MOH and partners to assess and respond to these issues.

3.2.4 Access to Mobile Phones

The feasibility of using mobile phone technology to strengthen communication with the health system was assessed during the survey. Mobile phone functioning was checked in suco council offices. Table 3 shows that 80% of suco council offices have mobile phone coverage. Baucau and Manufahi districts have lower-than-average coverage, with 56% and 45% respectively.

A reciprocal communication system between health service provider and community could be established using existing mobile phones.

Table 3: Participation of Chefes Suco, Councils, and PSFs in Immunization

	Ainaro	Baucau	Dili	Ermera	Liquiça	Manu-fahi	Vique-que	Total/ Average
Total sucos	21	59	31	52	23	29	35	250
% sucos with health committee	0%	7%	0%	2%	13%	0%	6%	4%
% suco councils received orientation on immunization	0%	10%	0%	0%	9%	0%	0%	3%
% chefe suco who know about SISCa function	100%	100%	100%	96%	100%	100%	100%	99%
% chefe suco who know about SISCa schedule	33%	36%	58%	64%	30%	30%	30%	40%
% of sucos with up-to-date Registro Saúde Familiar	0%	10%	10%	15%	9%	3%	6%	8%
% of PSFs who are active	84%	98%	87%	85%	84%	100%	83%	89%
% of PSFs who received orientation on immunization	0%	0%	0%	0%	0%	0%	0%	0%
% of suco council offices that have mobile phone coverage	95%	56%	100%	85%	100%	45%	80%	80%

3.2.5 Distribution of SISCa

SISCa is a kind of satellite clinic that offers curative, preventive and promotive health services to people who cannot easily access fixed health services. It is usually operated by health center staff, support by PSFs. The guidelines state that CHC directors, chefes suco, and aldeia and suco councils are responsible for supporting SISCa operations on a monthly basis. PSFs are supposed to register basic data and give health education on hygiene, sanitation and other health issues, while community leaders are expected to organize, plan, mobilize and assist health staff operating SISCa.

The guidelines indicate that SISCa should be held monthly at any suitable community location in each suco, such as the suco council office, a community center, a community member's home, a school or a church. SISCa can also be held under a shaded area providing it is comfortable⁷. The location for SISCa is established based on community consensus, so that the maximum number of families has access. This implies that SISCa should be not be located close to the CHC and/or staffed health post because such a location does not support the objective of SISCa services to improve access to health services to families living far from health services. As described in the table and figure below, some SISCa's occur close to a CHC, which undermines the intention of the accessing of remote communities.

Table 4 shows that 24 SISCa in the seven districts are located within 1 km of its nearby health facility. Figure 1 shows that about 60% of total SISCa in focus districts are located within 5 km from its nearby health facility, although this varies by district. Usually, SISCa are organized at the suco council's office regardless of the distance and access to health services.

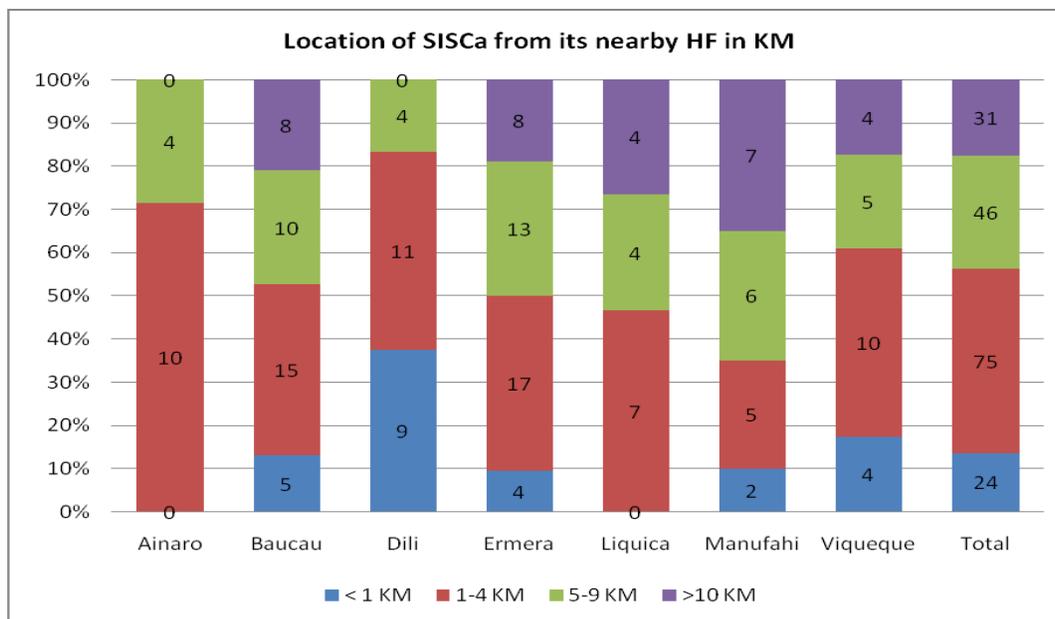
Poor location of SISCa is a sufficiently common problem to warrant attention at all levels of the MOH. This issue can and should be addressed at the time of micro-planning. CHCs could simply move certain SISCa to more remote, but well-populated, locations; or they could hold a SISCa in alternating months in the old and a new locations, so each location should have six SISCa per year. In the former case, the CHC staff would need to explain to communities losing SISCa why services were being moved elsewhere and encourage them to use the CHC in the same way they would have used SISCa.

⁷ The Ministry of Health (2007). *The SISCa Implementation Guide*. Dili, Timor-Leste.

Table 4: SISCa Location

Indicators	Ainaro	Baucau	Dili	Ermera	Liquiça	Manu-fahi	Viqueque	Average
Average distance of SISCa from its nearby health center, in km and minutes walking	3.1 km/ 104 minutes	5 km/ 86 minutes	2 km /48 minutes	5.4 km/ 96 minutes	6 km/ 118 minutes	9 km/ 169 minutes	4 km/ 103 minutes	4.93 km/ 103 minutes
Maximum distance of SISCa from its nearby health center, in km and minutes walking	8 km/ 240 minutes	30 km/ 420 minutes	7 km/ 120 minutes	22 km/ 300 minutes	20 km/ 300 minutes	35 km/ 480 minutes	16 km/ 420 minutes	19.71 km/ 326 minutes
Minimum distance of SISCa from its nearby health center, in km and minutes walking	1 km/ 30 minutes	0 km/ 0 minute	0 km/ 0 minute	0.1 km/ 3 minutes	1 km/ 10 minutes	0.3 km/ 5 minutes	0.2 km/ 2 minutes	0.37 km/ 7 minutes
# SISCa located within 1 km of distance from its nearby health facility	0	5	9	4	0	2	4	24

Figure 1: Distance of SISCa from Closest CHC



3.2.6 Other Community Health Outreach

Health care is not still easily accessible because of long distances and difficult walking conditions. Average walking distance from household to the nearest health facility is about 70 minutes⁸, and during the wet season even short distances can become impassable. The Basic Services Package recommends providing basic health services to those people who cannot

⁸ The Ministry of Health (2002). *Health Profile, Democratic Republic of Timor-Leste*. Dili, Timor-Leste.

easily access to health services through a remote area mapping exercise that involves all levels of the health service as well as community leaders and other ministries. Different districts are implementing strategies besides SISCa to make the health services more accessible. Table 5 shows that all focus districts except for Dili have carried out different outreach activities, mostly focused on nutrition. Having a more integrated approach to outreach activities could result in more services being offered at a more cost effective and efficient way.

Table 5: Type and Frequency of Health Outreach

District	Any outreach/ mobile clinic?	Types of outreach activities	Frequency
Ainaro	Yes	Nutrition and general consultation	Monthly
Baucau	Yes	Nutrition, EPI, and general consultation	Varies sub-district to sub-district, mostly monthly
Dili	No	Not applicable	Not applicable
Ermera	Yes	Mostly mobile clinic, few EPI	Mostly monthly
Liquiça	Yes	Mobile clinic, nutrition and general consultation	Monthly
Manufahi	Yes	Nutrition and general consultation	Monthly
Viqueque	Yes	Nutrition and general consultation	Monthly

3.2.7 EPI Coverage by Suco

Data collectors tried to access all EPI registers by suco and use them to calculate coverage for the first quarter of 2011 (January to March). Data show (see Annex X) an incredible variation in coverage levels among sucos. Some of the strange data may be caused by data-recording problems. The gap between coverage recorded in registers and coverage reported in the HMIS definitely merits investigation, in collaboration with the HMIS office if possible.

The micro-planning process, as recommended by WHO and adapted in Timor-Leste, should identify and map communities by coverage levels. Planners should then analyze the reasons for discrepancies in coverage and plan corrective actions. IPL staff could assist with this task at the CHC and district levels. Regular supportive supervision addressing HMIS and a periodic data quality audits could provide more reliable data that could strengthen micro-planning.

3.3 Sub-district Level

3.3.1 Community Participation

Almost all health strategy papers in Timor-Leste, such as the National Health Sector Strategic Plan, IMCI strategy paper, SISCa guidelines, and PSF guidelines, emphasize community participation. The National Health Sector Strategic Plan 2011-2030 offers its vision of “Healthy East Timorese People in a healthy Timor-Leste” through various means, including promotion of community participation in the improving of national health system⁹. However, there is still a

⁹ The Ministry of Health (2011). *National Health Sector Strategic Plan 2011-2030*. Dili, Timor-Leste

long way to go to develop a solid partnership between communities and health services – to utilize available resources and deliver demand-driven, quality services by formal institutions that have accountability at the local level. The low level of community participation in Timor-Leste reflects a lack of awareness of the benefits that can flow from genuine efforts to involve patients and clients, and the community in general, in “working partnerships” on health care planning, delivery, monitoring and evaluation.

Table 6 shows that 31 of 34 focus sub-district administrators meet with respective chefes suco and chefes aldeia periodically. Usually, these meetings take place once a quarter, although the frequency of meeting varies from sub-district to sub-district even within one district. Health issues are normally discussed, which indicates impressive progress toward involving community leaders and non-health sectors in health care delivery systems.

Table 6: Meetings of Sub-district and Local Administrative Staff

District	Sub-district	Does the sub-district administrative office meet with the chefe suco and aldeia?	How often do they meet?	Do they talk about any health issue?
Ainaro	Ainaro villa	Yes	Monthly	No
	Hatobulico		Quarterly	Yes
	Hatu-udo		Monthly	Yes
	Maubisse		Quarterly	Yes
Baucau	Baguia	Yes	Monthly	Yes
	Baucau Villa		Bimonthly	No
	Laga		Monthly	Yes
	Quelicaí		Monthly	Yes
	Vemassee		Monthly	Yes
	Venilale		Quarterly	Yes
Dili	Atauro	Yes	Monthly	Yes
	Cristo Rei	Yes	Monthly	Yes
	Dom Aleixo	No	N/A	N/A
	Metinaro	Yes	Monthly	No
	Nain Feto	Yes	Monthly	Yes
	Vera Cruz	No	N/A	N/A
Ermera	Atsabe	Yes	Monthly	Yes
	Ermera Vila	Yes	Quarterly	Yes
	Hatulia	Yes	Quarterly	Yes
	Letefoho	Yes	Monthly	Yes
	Railaku	Yes	Quarterly	Yes
Liquiça	Bazartete	Yes	Monthly	Yes
	Liquiça Vila	Yes	Quarterly	No
	Maubara	No	N/A	N/A
Manufahi	Alas	Yes	Quarterly	Yes
	Fatuberlihu	Yes	Quarterly	Yes
	Same	Yes	Quarterly	Yes

	Turiscari	Yes	Quarterly	Yes
Viqueque	Lacluta	Yes	Quarterly	Yes
	Osso	Yes	Quarterly	No
	Uatucarbau	Yes	Monthly	Yes
	Uatulari	Yes	Quarterly	Yes
	Viqueque Villa	Yes	Monthly	Yes

3.3.2 Involvement of Civil Society Organizations

CSOs can play a role in service delivery, political action, and in policy-making. They either fill gaps left by the public authorities or complement existing minimal packages of activities in health service delivery. CSOs also have the potential to affect the social determinants of health and empowerment of people, and to promote social inclusion into policy and practice.

Almost all sub-districts have the support of one or more CSOs, including NGOs (Non-governmental Organizations), CBOs (Community-Based Organizations), and FBOs (Faith-Based Organizations). It appears that most NGOs working on health follow their own, rather than the MOH's vision and mission. The MOH could benefit if CSOs worked in more integrated and coordinated manner with the MOH.

The MOH could encourage the formulation of a policy and advocacy cell at the Ministry of Health that engaged CSOs to address policy issues and evidence-based practices. The cell could review the policies of different CSOs to see if their existing policy documents and implementation procedures were in compliance with generally accepted evidence-based practices, local and country context, and the health system.

Table 7: NGOs Working in Health, by District

District	Number of NGOs working in health	Major focus areas
Ainaro	4 (HealthNet, Save the Children, MSI, HAI International)	SISCa, health promotion, and FP
Baucau	5 (CRS, MSI, World Vision, Alola Foundation, Caritas)	FP, nutrition,
Dili	3 (MSI, Alola Foundation, CWS)	HIV/AIDS, nutrition, FP (RH),
Ermera	8 (HAI, TAIS, MSI, CCT, Frontline, Edmund Rice, SHARE, ICRC,)	FP, curative care (BSP), SISCa, HP, school health, sanitation,
Liquiça	8 (HAI, ChildFund, Oxfam, Kilbur Domin, Esmaic, Edmund Rice, Water Aid, ICRC)	SISCa, nutrition, HP, TB, MCH, water and sanitation
Manufahi	4 (CCT, Save the Children, JOCUM, Protestant clinic)	Curative care, SISCa, HP
Viqueque	4 (MSI, MDM, Caritas, Alola)	SISCa, nutrition, health promotion, FP

3.3.3 EPI Coverage by Sub-district

In order to help direct more intensive assistance to the sub-districts with poor immunization coverage, all sucos' data were compiled by sub-district. Interestingly, none of the compiled

reports matched with the HMIS report of the respective CHC (see Table 8). There are several possible explanations; for example, not all registers by suco were available or filled in properly, poor recording system in vaccination sites etc. It would be worthwhile to better understand these reasons.

Table 8: Coverage by Sources of Data

Source of Data→	Register Book	HMIS	Register Book	HMIS	Register Book	HMIS
District	DPT1-HepB coverage (Jan-Mar 11)	DPT1-HepB coverage (Jan-Mar 11)	DPT3-HepB coverage (Jan-Mar 11)	DPT3-HepB coverage (Jan-Mar 11)	Measles coverage (Jan-Mar 11)	Measles coverage (Jan-Mar 11)
Ainaro	64%	52%	46%	37%	54%	47%
Baucau	95%	81%	87%	71%	88%	74%
Dili	66%	58%	42%	58%	40%	47%
Ermera	43%	59%	35%	57%	34%	53%
Liquiça	30%	53%	34%	60%	26%	48%
Manufahi	67%	56%	64%	61%	58%	58%
Viqueque	53%	104%	40%	80%	47%	82%

3.4 Health Facility Level

3.4.1 Availability of Immunization in Health Facilities

The national EPI policy and Basic Service Package recommend that vaccination should be available daily at CHC level for eligible children present in a place of vaccination, even if there is no formal “immunization” service scheduled for that day. The assessment found only 17 of 34 CHCs offer all antigens daily, whereas 18 CHCs offer daily BCG services, 17 measles, and 23 DPT-HepB. The biggest problem seems to be in Dili, but there is at least one CHC lacking daily vaccination in most districts (see Figure 2 and Table 9).

Figure 2: Immunization Services Offered by CHC, by Antigen

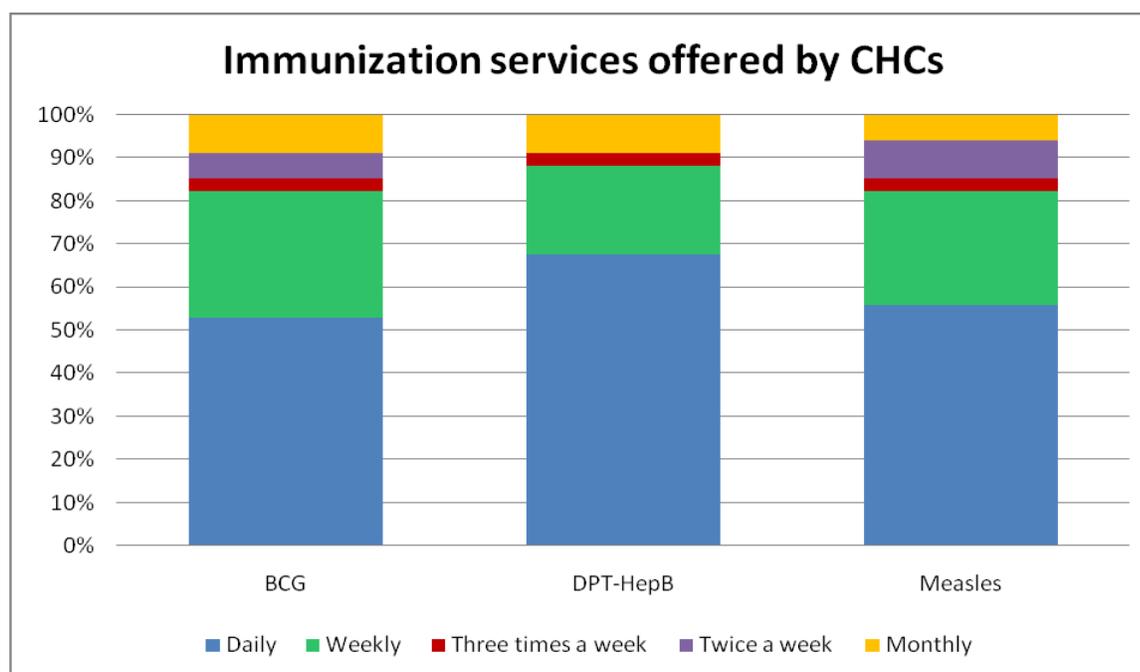


Table 9: Immunization Schedule by Antigen and Health Facility

District	Sub-district	Name of the Health Facility	BCG	DPT-HepB	Measles
Ainaro	Ainaro	CHC Ainaro	Daily	Daily	Daily
	Hatubuilico	CHC Mulo	Daily	Daily	Daily
	Hatu-Udo	CHC Leolima	Daily	Daily	Daily
Baucau	Maubessi	CHC St. Joaquin	Monthly	Monthly	Monthly
	Baguia	CHC Baguia	Weekly	Daily	Twice a week
	Baucau Villa	CHC Wailili	Weekly	Daily	Weekly
	Laga	CHC Laga	Weekly	Weekly	Weekly
	Queliquai	CHC Queliquai	Daily	Daily	Daily
	Vemasse	CHC Vemasse	Daily	Daily	Daily
	Venilale	CHC Venilale	Daily	Daily	Daily
	Dili	Atauro	CHC Atauro	Weekly	Weekly
Cristo Rei		CHC Becora	Weekly	Daily	Weekly
Dom Aleixo		CHC Comoro	Daily	Daily	Daily
Metinaro		CHC Metinaro	Daily	Daily	Daily
Nain Feto		CHC Formosa	Twice a week	Daily	Twice a week
Vera Crus		CHC Bairo Pite	Three times a week	Three times a week	Three times a week
Ermera		Atsabe	CHC Atsabe	Daily	Daily
	Ermera Vila	CHC Ermera	Daily	Monthly	Daily
		CSI Gleno	Twice a week	Daily	Twice a week
	Hatulia	CHC Hatulia	Daily	Daily	Daily
	Letefoho	CHC Letefoho	Weekly	Weekly	Weekly
	Railako	CHC Railako	Daily	Daily	Daily
Liquiça	Bazartete	CHC Bazartete	Daily	Daily	Daily
	Liquiça Villa	CHC Villa	Daily	Daily	Daily
	Maubara	CHC Maubara	Weekly	Weekly	Weekly
Manufahi	Alas	CHC Alas	Daily	Daily	Daily
	Fatuberlihu	CHC Fatuberlihu	Monthly	Daily	Daily
	Same	CHC Same	Daily	Daily	Daily
	Turiscail	CHC Caimauk	Weekly	Weekly	Weekly
Viqueque	Lacluta	CHC Lacluta	Daily	Daily	Daily
	Osso	CHC Osso	Daily	Daily	Daily
	Uatucarbau	CHC Uatucarbau	Monthly	Monthly	Monthly
	Uatulari	CHC Uatulari	Weekly	Weekly	Weekly
	Viqueque-Vila	CHC Viqueque	Weekly	Weekly	Weekly

Figure 2 shows that BCG vaccine is given daily by just above 50% of health facilities, followed by measles and DPT-HepB at about 55% and 68% respectively. This situation definitely contributes to low immunization coverage in Timor-Leste. The principal reasons for not offering all antigens every day are: (1) on SISCa days, many facilities lack sufficient staff to offer all facility-based as well as SISCa services, and (2) health staff want to avoid wasting vaccine, particularly measles and BCG, by opening a new vial when only one or few eligible children are present.

Daily immunization service is highly recommended to increase immunization access and coverage. It appears that there are missed opportunities for vaccinations when parents bring their children to attend other health services such as curative consultations and the supplementary feeding program. This issue should be discussed in micro-planning sessions, program review meetings at DHS level, and national-level discussions.

3.4.2 Tracking Systems

Where coverage is not sufficiently high, the international recommendation is for health staff, with community members if feasible, to list, monitor and facilitate immunization of dropouts and un-immunized children. This assessment found only a few facilities following these practices, as shown in Table 10.

Table 10: Health Facilities with a List of Unreached Children, by Suco

District	Sub-district	Name of the Health Facility
Baucau	Baucau Villa	HP Bucoli
		HP Caisido
	Vemasse	CHC Vemasse
		HP Ostico
Venilale	HP Osso Waque	
Viqueque	Osso	CHC Osso

3.4.3 Micro-planning and Partnering with Communities

The Reaching Every District (RED) strategy was developed by WHO, UNICEF and other partners to improve immunization services at district level focuses on strengthening the cold chain, supportive supervision, community participation, budgeting and financing, and micro-planning to identify local problems and find corrective solutions, using local data. A key component is health facility (service delivery) micro-plans, which are then compiled to make the district micro-plan. Thus, micro-plans at CHC and DHS levels are the mechanism through which to improve efficiency and effectiveness of immunization at those levels. Community representatives should participate in the micro-planning process. This assessment found that only 19% of health facilities had micro-plans for the year of 2011.

The study assessed community participation at different levels of the health system. Less than half of the CHCs (47%) in focus districts were found to conduct meetings with all health staff, PSFs, and chefes suco on a quarterly basis. This figure varies from district to district: all CHCs in Ainaro were having regular meetings with its potential stakeholders, while only 20% in Ermera (Table 11).

Table 11: Various CHC Indicators, by District

District	Ainaro	Baucau	Dili	Ermera	Liquiça	Manufahi	Viqueque	Average of seven districts
% CHCs with micro-plan for EPI	0%	0%	33%	0%	33%	25%	40%	19%
% CHCs meeting at least quarterly with all health staff, PSF and chefe suco	100%	50%	33%	20%	33%	50%	40%	47%
% CHCs with functional vehicle management system	0%	17%	67%	20%	67%	75%	60%	44%
% health facilities with functional refrigerator that have proper vaccine management ¹⁰	25%	17%	33%	25%	33%	25%	0%	23%
% health facilities that received EPI supportive supervision visit in the last 6 months	33%	67%	83%	60%	100%	75%	100%	74%

3.4.4. Human Resources

The assessment found both a shortage of human resources for immunization and maldistribution of staff favoring urban centers. The distribution issue is much worse in some districts (e.g., in Manufahi district, Same has 25% of the population but over 60% of the nurses and midwives). The lack of staff in many facilities makes it very difficult to offer full services in the facilities on the same days that facility staff are out at SISCa or outreach. This is clearly an issues that the MOH needs to address,

As shown in Table 12, several CHCs require more midwives to ensure better MCH services, including immunization. IPL will recruit and hire 10 midwives to support the MOH’s maternal and child health programs in districts where there are insufficient midwives. Supervision and management of midwives will be a joint MOH-IPL responsibility. This includes: deployment, annual performance evaluations, assignment of work duties, work scheduling, leave requests, travel logistics, etc.

¹⁰ Proper vaccine management: The baseline questionnaires were focused on the following key areas to consider proper vaccine management : recorded temperature twice daily in the last month, no VVM reading at discard stage (3,4) in refrigerator today, no Expired vaccine in refrigerator today, no frozen vaccine in refrigerator today, and follow MVDP guideline correctly

Table 12: Available Midwives, by District and Health Facility

District	Sub-district	Health facility	Total available midwives
Ainaro	Hatubuilico	CHC Mulo	1
	Hatu-Udo	CHC Leolima	1
	Maubessi	CHC St. Joaquin	1
Baucau	Baguia	CHC Baguia	0
	Venilale	CHC Venilale	0
Dili	Metinaro	CHC Metinaro	1
Ermera	Atsabe	CHC Atsabe	1
	Hatulia	CHC Hatulia	1
Manufahi	Alas	CHC Alas	1
	Turiscari	CHC Caimauk	1
Viqueque	Lacluta	CHC Lacluta	1
	Osso	CHC Osso	1
	Viqueque-Vila	CHC Viqueque	0

Trained and skilled human resources are crucial for quality immunization services. There was no up-to-date training data base, so IPL assessed training as part of the baseline survey.

The MOH would like all vaccinators and their supervisors to be trained in standard immunization courses, such as Immunization In Practice (IIP) and Cold Chain and Vaccine Management (CCVM). Table 13 illustrates the number of health facilities lacking even one staff trained on IIP and CCVM. 23 health facilities, including three CHCs, were found without staff trained on IIP, and 32 health facilities, including seven CHCs, without staff trained on CCVM. Nine health facilities were identified whose staff has received training on neither IIP nor CCVM. Besides more training on IIP and CCVM, in-service training is needed during supportive supervision visits.

Table 13: Health Facilities with No Staff Trained in IIP and CCVM

District	Name of health facilities with no trained staff
Dili	Clinic St. Antonio Motael, HP Balibar, HP Beloi, HP Biqueli, HP Darlau, HP Duyung, HP Hera, HP Makadade, HP Manleuana, Maternidade Fatumeta
Ermera	CCT Clinic Aifu, HP Coliati
Manufahi	CHC Alas, CHC Fatuberlihu, HP Besusu, HP Caicasa, HP Fahi – Nihan, HP Ferik Sare, HP Tutuluro, HP Weberek
Viqueque	CHC Lacluta

The recently conducted EVM assessment identified strengths and weaknesses of human resources related to the vaccine supply chain. Strengths were found in storage and transport

capacity, and buildings, equipment and transport quality; whereas temperature monitoring, stock management and distribution management were found as major weak areas¹¹. Supportive supervision reports mention similar strengths and weaknesses. The MOH is in the process of adopting Mid-Level Manager training modules for training CHC directors and other relevant managers. IPL will join the MOH and other partners to train vaccinators and other health staff on IIP and CCVM in order to increase their capacity and skills.

During SS visits and the EVM assessment, it was found that many health facilities could not maintain the cold chain properly or have facilities or personnel available to fix minor problems with their refrigerators. Staff often called on central-level technicians to fix those minor problems. Thus, it seems important to train vaccinators on the basics of cold chain maintenance and repair in order to ensure smooth vaccine management. Table 14 lists the health facilities with functioning refrigerators but with no staff trained on cold chain maintenance and repair. No staff in these facilities have been trained on either IIP or CCVM.

Table 14: Health Facilities with Functioning Refrigerator but No Staff Trained on Cold Chain Maintenance and Repair, by District

District	Health Facilities
Ainaro	CCT Dare, CCT Maubessi CHC Ainaro, CHC Hatudo, CHC Hatubuilico , HP Nuno - Moge
Baucau	CHC Baguia, CHC Queliqai, CHC Vemasse, CHC Venilale, CHC Wailili, HP Bercoli, HP Buruma, HP Lavateri, HP Loelubu, HP Nunira, HP Osso huna, HP Osso Waque, HP Sagadate
Dili	CCT Clinic, CHC Atauro, CHC Bairo Pite, CHC Becora, CHC Comoro, CHC Formosa, CHC Metinaro, HP Hera, Maternidade Fatumeta
Ermera	CCT Clinic Aifu, CCT Clinic Haupu, CCT Clinic Lauana, CCT Clinic Malabe, CCT Clinic Talimoro, CHC Atsabe, CHC Ermera, CHC Letefoho, CHC Railako Clinic Sta. Bachita, CSI Gleno
Liquica	CHC Maubara, CHC Villa
Manufahi	CHC Alas, CHC Same, CHC Caimauk, CHC Fatuberlihu
Viqueque	CHC Lacluta, CHC Osso, CHC Uatulari, CHC Viqueque

3.4.5 Availability of Functional Refrigerator

All CHCs, except CHC St. Joaquin in Maubesse, and a few health posts (Table 15) had a functioning refrigerator.

¹¹ The Ministry of Health (2011). *Effective Vaccine Management: Towards improving The Immunization Supply Chain Management in Timor-Leste*. Dili, Timor-Leste

Table 15: Lists of the Health Post with Refrigerators

District	Sub-district	Name of the Health Facility
Ainaro	Ainaro	HP Soru Craic*
	Hatubuilico	HP Nuno – Moge
Baucau	Baguia	HP Lavateri
		HP Osso huna
	Baucau Villa	HP Buruma
	Laga	HP Nunira
		HP Sagadate
	Vemasse	HP Loelubu
	Venilale	HP Bercoli
HP Osso Waque		
Dili	Cristo Rei	HP Hera
Ermera	Hatulia	HP Asulau*
Liquiça	Bazartete	HP Metagou
	Liquiça Villa	HP Darulete*
Manufahi	Fatuberlihu	HP Caicasa
Viqueque	Osso	HP Osorua
	Uatucarbau	HP Afloicai
	Uatulari	HP Babulu*
	Viqueque-Vila	HP Beaco*
		HP Buikarin

*Health post with non-functioning refrigerator

3.4.6 Health Facilities' Access to Communication

Limited access to health facilities is one of the big challenges faced by the health system, compounded by distance and poor care seeking behavior. In many rural areas, roads are very poor and become impassable during rainy season. Public transport is limited and irregular.

Health facilities are supposed to have a two-way radio; however, many of these are out of order, and many facilities have not been equipped yet (see Table 16). The Figure 3 shows that only 17% of all visited health facilities had a functional radio, whereas 24% could not communicate with their referral health facility by any means as these health facilities lacked both a functioning radio and mobile phone coverage. Better communication access and better use of existing means could help CHCs' avoid cancelling SISCa's without informing the waiting communities.

Electricity coverage has improved but is not always available in many sucos. Some more remote areas do not have electricity.

Figure 3: Health Facilities' Access to Communication

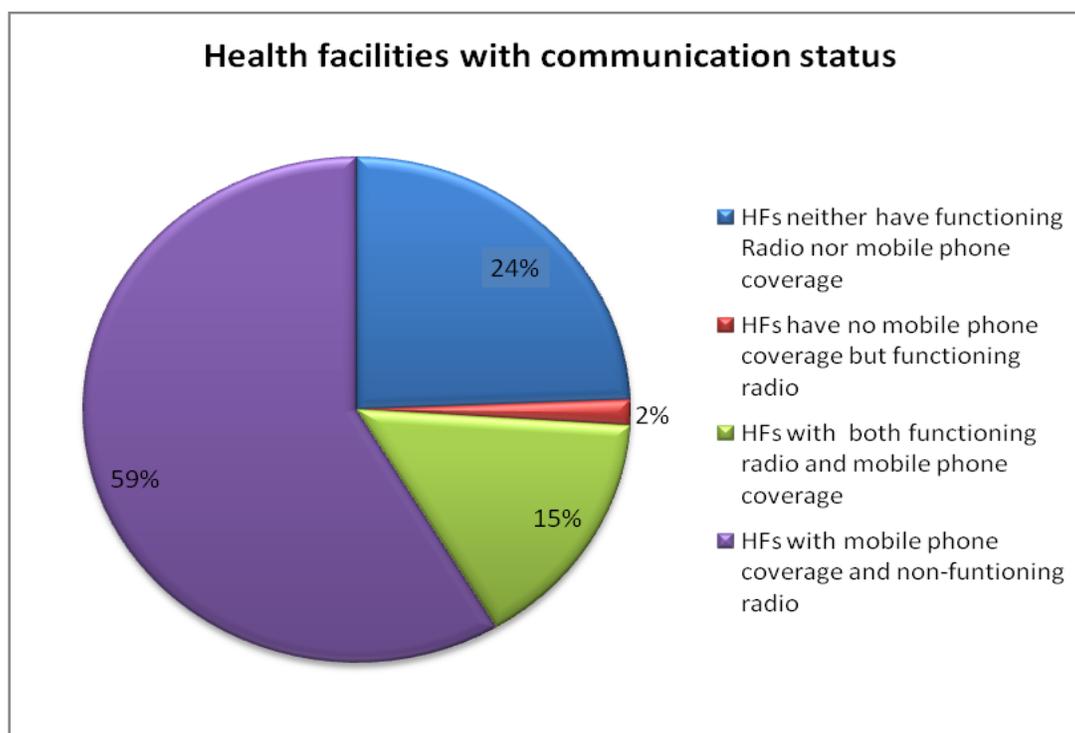


Table 16: Health Facilities without Functioning Radio or Mobile Phone Coverage

District	Sub-district	Name of the Health Facility	District	Sub-district	Name of the Health Facility	
Ainaro	Ainaro	HP Cassa	Manufahi	Alas	HP Ferik Sare	
Baucau	Baguia	HP Osso huna		Same	HP Tutuluro	
	Baucau Villa	HP Bucoli	Viqueque	Lacluta	HP Uma-Tolu	
		HP Caisido		Uatulari	HP Nunumalau	
	Laga	HP Atelari			HP Vessoro	
		HP Boleha		Viqueque-Vila	HP Beaco	
		HP Saelari			HP Bibileo	
	Vemasse	HP Loelubu			HP Luca/SP2	
		HP Waigae			HP Lugasa	

3.4.7 Health Facilities' Access to Transport

Because health workers in most sucos must go out from their facilities to provide immunization and other services, proper vehicle management is critical. A recent transport and logistics assessment cited poor operational management of vehicles. Staff are verbally assigned with transport management responsibilities; there are no standard vehicle files, extremely poor

record keeping, no logbooks or logbook details for most vehicles, and sporadic planning and scheduling that is not integrated into work plans¹². Although on an average, this study found 44% (15 of 34 CHCs) of CHCs with proper vehicle management system, some districts were found with extremely poor management: 0% (0 of 4), 17% (1 of 6), and 20% (1 of 5) of CHCs in Ainaro, Baucau, and Ermera respectively.

To supplement guidance needed from the national EPI, IPL plans to provide 25 motorcycles to the MOH in order to support outreach sessions and mobile clinics for reaching hard-to-reach areas as per micro-plans. Therefore, IPL intends to address some of the above constraints by designing, with DHS teams, mechanisms for planning and tracking of vehicle use and maintenance at district and sub-district level. It is worth mentioning that 63 of 156 assessed health facilities lacked a functional motorcycle. In order to make a proper motorcycle distribution list, the listed health CHCs in Table 17 without motorcycle will be given priority.

Table 17: Available Motorcycles, by Facility

District	Sub-district	Name of the CHC
Name of the CHC without any functioning motorcycle		
Ainaro	Maubessi	CHC St. Joaquin
Dili	Nain Feto	CHC Formosa
	Vera Crus	CHC Bairro Pite
Ermera	Ermera Vila	CSI Gleno
Liquiça	Maubara	CHC Maubara
Viqueque	Uatucarbau	CHC Uatucarbau
Name of the CHC without any functioning car		
Ainaro	Ainaro	CHC Ainaro
	Maubessi	CHC St. Joaquin
Baucau	Baucau Villa	CHC Vemasse
	Vemasse	CHC Wailili
Dili	Cristo Rei	CHC Bairro Pite
	Vera Crus	CHC Becora
Viqueque	Osso	CHC Osso

¹² Mark Nicholson (2009). *Assessment and Situational Analysis for logistic management of the Ministry of Health/Logistic Department, Timor-Leste*. Dili, Timor-Leste

3. The Way Forward

This baseline results, as well as many other contemporary studies, illustrate the enormous challenges to the MOH and its partners, in spite of significant successes. Continued progress requires coordinated efforts and strong political will. IPL will follow the strategies and execute the action plan mentioned its project proposal.

1. **Decentralization and empowering the field level team:** Each district-based team will be facilitated to develop a detailed implementation plan, which will be incorporated into DHS plans. The DHS and team plans should be reviewed quarterly by the team.
2. **Multi-sectoral coordination and collaboration:** The Ministry of State Administration and Territories plays a pivotal role in organizing SISCa and managing PSF. Therefore, IPL will work with district and sub-district administrators and suco councils and will assist in mobilizing communities and encouraging stronger partnerships with health facilities.
3. **Strengthen partnerships:** Partnerships are at the heart of all IPL activities. Therefore, IPL will foster partnerships with communities, the MOH and its partners, especially EPI working group members to share resources to maximize outcomes.
4. **Integration:** IPL believes in integration at each level (macro, mezzo and micro) of program implementation; therefore, our responsibility for one particular program, we highly encourage our team to deliver our efforts in integration other MCH programs.
5. **Sustainability:** IPL will try to involve the MOH and its partners in every level of program implementation, so that they are well informed and feel a sense of ownership. Moreover, IPL intends to document lessons learned and disseminates best practices among partners, which could be mainstreamed into the MOH system and carried forward and supported by its partners.
6. **Innovation:** Community mobilization has yet to be widely incorporated into the MOH activities, and the study reports identified different gaps, especially in tracking systems. This project will explore different participatory community mobilization approaches and community-based program tracking and monitoring systems.
7. **Contribute to health systems strengthening and policy formulation:** IPL will keep raising its voice at different policy levels and take an active part in reviewing and formulating different policy papers, strategic guidelines, and training and communication materials related not only to EPI but also to the entire health system.

Annexes

Questionnaires, Presentations

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