

# **Detailed Implementation Plan**

**for**

## **Improving Maternal and Newborn Health in Timor-Leste**

**September 30 2004-2008**

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## ABBREVIATIONS USED

AIMSI	Asistencia Integrado Saude Materno Infantil (Portuguese)
ANC	Antenatal Care
BASICS3	Basic Support for Institutionalizing Child Survival
BCC	Behavior Change and Communication
CCT	Café Timor Cooperative (coffee growers)
CHC	Community Health Center
CS	Child Survival
DHMT	District Health Management Team
DHS	Demographic and Health Surveys
DPO	District Program Officer
EmOC	Emergency Obstetric Care
EPI	Expanded Program on Immunization
HF	Health facility (includes health centers and health posts)
HAI	Health Alliance International
HMIS	Health Management Information System
HP	Health Promotion
HPN	Health, Population, and Nutrition
HQ	Headquarters
IEC	Information, Education, and Communication
IMCI	Integrated Management of Childhood Illness
IR	Intermediate Results
KPC	Knowledge, Practices and Coverage
MCH	Maternal and Child Health
MCHWG	Maternal and Child Health Working Group
MICS	Multiple Indicator Cluster Survey
MNC	Maternal and Newborn Care
MOH	Ministry of Health
MW	Midwife
NCHET	National Center for Health Education and Training
NGO	Nongovernmental Organization
OR	Operations Research
PCV	Peace Corps Volunteer
PPC	Postpartum Care
PVO	Private Voluntary Organization
RH	Reproductive Health
RHS	Reproductive Health Strategy (national)
SAMES	Central Pharmacy of Timor-Leste
STI	Sexually Transmitted Infection
TBA	Traditional Birth Attendant
TL	Timor-Leste (East Timor)
TT	Tetanus toxoid
UN	United Nations
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children's Fund
VHP	Village Health Promoters
WHO	World Health Organization

## A. Executive Summary

**Location.** Health Alliance International (HAI) submits this Detailed Implementation Plan for the Child Survival and Health program "Improving Maternal and Newborn Health in Timor-Leste". The target country is the Democratic Republic of Timor-Leste, formerly known as East Timor. The program initially will focus activities in the central region districts of Liquica, Ermera, Manatuto, and Aileu, with expansion during the final two years to Ainaro and Manufahi districts, plus limited activities in Dili District.

**Problem statement.** Timor-Leste became an independent nation in May 2002. Massive post-referendum violence in 1999 had left the country with the task of rebuilding, with limited resources, an entire infrastructure including the health system. The health problems of Timorese, particularly women and infants, are great. Current maternal mortality is estimated to be at least 800/100,000 live births. Infant mortality is estimated to be 84/1000 live births, with neonatal mortality 33/1000 live births. An estimated 109 children/1000 die before reaching age five. Use of antenatal care, skilled health providers at delivery, and postpartum and newborn care are all very low. Exclusive breastfeeding is also very limited. Severe logistical and cultural constraints are challenges to providing accessible and acceptable reproductive health services to women, particularly in remote rural areas. Prioritization of the many tasks facing staff in the new MOH is a daunting challenge. This program will assist the MOH to develop and implement a comprehensive approach to neonatal, delivery, and postnatal/ newborn care, a critically important effort that will substantially reduce the unacceptable rates of death and disability for mothers and their infants in Timor-Leste.

**Beneficiaries.** The seven target districts include approximately 100,000 women of childbearing age and 26,000 infants born to them annually. Because of very high fertility rates, children under age 5 comprise a high percentage of the population (17%).

**Program goals, objectives, and strategies.** HAI is supporting the Timor-Leste MOH to strengthen its national program to improve maternal and newborn care (MNC) in the seven districts of the central region. The program is initially conducting intensive pilot efforts in four focus districts, expanding to an additional three districts during Year 3 of the program. Careful monitoring and evaluation of the effectiveness of approaches in the focus districts will identify those to be phased in to the expansion areas during the final two years.

The *goal* of the program is to improve health and reduce mortality and morbidity for mothers and their infants in Timor-Leste. Key *objectives* are to assure that: at least 90% of MOH facilities in the program districts have at least one staff member skilled in the key elements of antenatal, postpartum, and newborn care, and will have effective systems to maintain essential supplies and materials for that care; 70% of pregnant women will receive antenatal care (at least one visit) by a skilled provider; 30% of deliveries will be attended by a skilled provider; 70% of pregnant women and their newborns will be protected against tetanus; 60% of women who deliver will have high dose Vitamin A supplementation within 8 weeks of delivery; 45% of infants aged 0-5 months will be exclusively breastfed; and 50% of mothers of children under one year of age will know at least three signs of newborn illness.

The program will accomplish these objectives by: 1) supporting the MOH to improve the quality of and access to antenatal and postnatal/newborn care services, and 2) increasing appropriate home care and care-seeking practices for MNC by mothers and other community members. Both approaches are consistent with the national commitment to implement IMCI and will be integrated with community IMCI activities.

At the level of *health services improvement*, the proposed program will support skills-based training of MOH midwives in antenatal care (with a focus on communication skills) and postnatal/newborn care services, and will provide follow-up supervision visits to reinforce the use of skills acquired during the training. The program will assist the MOH to identify and address constraints within the health system to providing quality services. Program staff are active members of the Maternal and Child Health Working Group

(MCHWG), which is advisory to the MOH and is made up of key staff in the MOH and other relevant collaborating agencies including BASICS3, UNICEF, WHO, UNFPA, and other NGOs. HAI will work with the MCHWG to identify health systems problems, operations research issues, and other kinds of support needed to reduce unnecessary maternal and newborn death and disability.

At the level of *community-based health promotion*, the program involves all relevant groups working in program districts to participate in the design and implementation of activities tailored to the needs of each district or community. Existing recent household survey data (MICS, DHS) have quantified baseline levels of key indicators. Qualitative baseline information was gathered to fill in current gaps regarding knowledge, beliefs, and practices related to reproduction, pregnancy, childbirth, the postpartum period, newborn care, breastfeeding, and the use of health services. Traditional leaders, healers, and birth attendants will assist with community-level program development and implementation. Church-based health services, international and indigenous community-based NGOs, women's groups, and the US Peace Corps are included in community health promotion for MNC, linking with other community IMCI efforts. The program will work with the school health education officer for the MOH's health promotion unit to assure that secondary teachers are trained in the key messages appropriate for that educational level. For urban areas mass media approaches, including print and broadcast, will promote key messages. In addition, development of community-theater will be explored as a health promotion medium at the village level, as well as the development of a video of key messages for the continuum of pregnancy through to the postpartum period.

**Level of effort.** The entire program focuses on maternal and newborn care. Wherever possible the program links with and reinforces the existing national IMCI program.

**Operations research.** Currently anticipated OR activities include pilot efforts to promote and evaluate 'birth-friendly' health facilities and/or maternal waiting homes; make use of cultural practices to increase postpartum/newborn care coverage; increase home delivery by midwives; and prospectively audit maternal and perinatal deaths for quality improvement.

**Program partners.** The Timor-Leste Ministry of Health is HAI's key partner in this program, to assure that its approaches are both feasible in the Timorese context and sustainable over time. HAI supports an MOH District Program Officer in each of the program districts, who is part of the District Health Management Teams and links with MOH midwives, and community groups. Training activities will be conducted with staff of the MOH's National Center for Health and Education Training (NCHET), and health promotion activities will be planned and conducted jointly with the Health Promotion unit of the MOH. A new partner in Timor-Leste is the USAID-supported AISMI program which will work with the MOH in improving child health services. Another direct partner is the US Peace Corps, with volunteers who will support the program's rural health promotion activities in all the program districts. Health services of the Café Timor Cooperative will also be partners in the effort to expand improved services to the population. Church-based groups, particularly a broad range of Catholic-supported clinics, will be invited to participate. A range of other NGOs, both local and international, are program partners at the district level. Other agencies that will be involved as informal partners include: 1) WHO, for technical support in maternal/neonatal health interventions and updated health status information; 2) UNICEF, supporting safe motherhood training, maternal tetanus immunization, and other maternal/newborn care services; and 3) UNFPA, promoting family planning and improved emergency obstetric care.

**Category and budget.** Dates for this standard category program are October 1, 2004 to September 30, 2008. USAID funding is \$1,500,000 for the four-year program.

**USAID contact.** Headquarters and field staff are in regular discussions with the USAID Senior Program Manager in Dili, Charles Oliver. Adam Slote of the Global Health Bureau was also involved in the startup planning for the program.

**Principal authors/contact person.** The DIP was developed by field staff Nadine

Hoekman and Ingrid Bucens; MOH counterparts Lidia Gomez and Natalia de Araujo; and HAI headquarters staff Mary Anne Mercer and Susan Thompson. Mary Anne Mercer is the principal contact at HAI headquarters.

## **B. CSHGP Data Form**

Annex 6 presents the Rapid CATCH data for the program area.

## **C. Description of DIP Preparation Process**

Following the award of the CSHGP grant, preparation and planning started at the HAI headquarters level. Staff for the two key expatriate positions were identified by July, 2004. In July and August planning meetings between Mary Anne Mercer, Susan Thompson (Headquarter staff) and Nadine Hoekman (Program Manager) were held in Seattle with input from Ingrid Bucens (Technical Advisor) in Australia via email and conference calls. Nadine Hoekman departed for Timor-Leste in early September to spend a month living with a local family to facilitate her learning of the Tetum language prior to program start-up.

In October all of the aforementioned staff were in Timor-Leste together to launch the program. A meeting was held with Dr. Rui Maria de Araujo, the Health Minister, and a Memorandum of Understanding with HAI was developed (see Annex 3). HAI staff made a presentation introducing the HAI/MOH Maternal and Newborn Care Program for MOH staff, USAID, and other potential partners. Valuable feedback from participants was incorporated into project planning. In October, the HAI team met the District Heads in the program districts to discuss the program and to choose a date for the introduction of HAI to stakeholders within the district. The following month, HAI traveled to each of the four program districts to do a presentation of the new HAI/MOH program. The District Health Management Team (DHMT) invited stakeholders from throughout the district: other NGOs working in the district, Peace Corps Volunteers, people from various sectors, including education, police, church, district administration as well as representatives from community groups. In these presentations it was stressed that HAI was working with and supporting the MCH department of the MOH, and would be working through the DHMT at the district level. HAI outlined the process of the baseline assessments to be conducted as well as the plan for a return visit to present findings of the assessments and to plan program activities in conjunction with stakeholders at the district level.

In addition to these meetings, visits were made to a variety of organizations in Dili including UNICEF, WHO, UNFPA, Peace Corps, CCF, CCT, Timor Aid, and Healthnet International to discuss possible areas of collaboration. Discussions were also held with the US Ambassador and Charles Oliver from the USAID Mission in Timor-Leste. Adam Slote of the Global Bureau was included in several of the discussions.

The Health Minister asked the MCH department to develop the job description for a new MOH position, a district-based program officer for MCH (MCH DPO). Discussions regarding the draft of the job description were held between HAI and the MOH staff from the MCH and Human Resources Departments. Further input was received from the District Heads. In conjunction with the MCH department and the District Heads, suitable candidates for the MCH DPO position in each of the program districts were identified in November. On December 3<sup>rd</sup> the four successful candidates were invited to an orientation day in Dili, which was conducted jointly by the MOH and HAI.

Since that time, the same position has been created in all districts throughout the country and HAI supported training of the entire group of MCH DPOs in May (see position description in Annex 10). The DPO position represents an important avenue for assuring the

sustainability of program efforts, since the ministry has committed to supporting the position as a permanent one.

After an orientation to the tools to be used, the MCH DPOs in program districts assisted in conducting the health facility baseline assessment. They accompanied HAI staff to health facilities throughout their district. This gave HAI an opportunity to establish a working relationship with the DPOs and allowed them to gain experience in conducting a health facilities assessment as well as an occasion to observe the strengths and weaknesses at a variety of health facilities within their district.

While planning for the community assessments was done in conjunction with the District Heads, district health staff were not included in the assessment teams. This was done explicitly to diminish the reluctance of community members and traditional birth attendants to share openly about practices that may not be necessarily supported by the health system.

Throughout the DIP preparation process there was regular contact with the MCH department of the MOH. Weekly meetings were scheduled with the two key staff in the MCH department. Because of numerous other demands on their time, MOH staff was not always available for scheduled meetings, but every effort was made to maintain regular contact, to keep them informed and solicit their involvement in baseline assessment activities.

The health facility assessment was completed in early January and the community assessment in February. Another stakeholders meeting was held in each district, with participants including health staff, Peace Corps Volunteers, and representatives from various sectors within the district and NGOs working in the district. Community members from communities where the assessment was conducted were also included to allow them to give direct feedback to their community regarding the results of the assessment.

Each district meeting commenced with a presentation from HAI outlining the findings from the health facility and community assessments that contribute to maternal and newborn morbidity and mortality. Following the presentation, members from the district health staff, NGOs, and community groups were invited to share MCH activities already underway within the district. Then three working groups were formed and each group was given a different list of problems that had been identified in the presentation. There was an HAI and/or Dili MOH staff facilitating each group. From their list group members chose approximately 5 problems, discussing possible causes contributing to the problem and identifying a variety of potential solutions, including who might implement them and where. In the afternoon, each of the three groups presented the results of their discussions to the larger group and there was time for questions, comments and discussion in the larger group. HAI recorded all suggestions and ideas. A number of participants voiced appreciation for the event, and it is hoped that this participation in the planning process will enhance the feeling of ownership in program activities.

During district visits, a collation of all NGOs and other groups working in health or development in each of the startup districts was developed, including the names, activities, location, and likely areas of collaboration with each group (Annex 11).

Following the district level meetings, HAI again collated the input and held a meeting with the MCH and HP departments to present assessment findings and the input from districts and to allow time for discussion and input regarding this information. This group then worked together to prioritize gaps within the current system and to design the detailed implementation plan together using the information from the assessments as well as input

from the district stakeholders meetings. Following this process, a larger meeting was held to present the program implementation plan to all MOH staff, USAID, UNICEF, WHO, UNFPA, Peace Corps, as well as representatives from partner NGOs.

#### **D. Revisions (from original application)**

No substantive revisions to the original application have been made. One of the planned startup districts was changed from Manufahi to Mantuto, based on the very active interest by Manatuto health staff to be involved in the program, and on that district's somewhat greater accessibility to Dili. Manufahi will be included in the program during the expansion phase of the program scheduled for years 3 and 4.

The original approach of the program has been affected by the recent involvement of the BASICS3 and ImmunizationBASICS programs in Timor-Leste, currently in the early stages of implementation with funding from the local USAID mission. Those two programs have merged administratively for country operations as the AISMI project (Asistencia Integrada Saude Materno Infantil). The main approaches of this new program are seen in Annex 12).

HAI and AISMI both have as their goals to improve health in Timor-Leste by working with government structures to improve the quality of health services and to promote community awareness and care-seeking for health problems. AISMI focuses on the health of the child, and HAI on maternal and infant health; the groups have an overlapping interest in the health of the newborn. The convergence of our two groups in Timor-Leste offers an ideal opportunity to provide coordinated technical support to the Ministry of Health in the full spectrum of maternal and child health. Current plans for collaboration include offices in the same building with the MCH department of the MOH (with the building rehabilitation currently under way). Headquarters staff of both groups also plan to be in frequent communication around common issues and approaches.

#### **E. Detailed Implementation Plan**

##### **1. Summary of Baseline and other assessments**

a. The overarching goal of Health Alliance International's (HAI) program is to support the Timor-Leste Ministry of Health **to improve the health and reduce the morbidity and mortality of mothers and their newborns**. There are two main strategic arms to the program: 1) health services improvement and 2) community-based health promotion. The following baseline assessments provide current information to inform the health services and the community-based health promotion arms of the program.

##### **1. Timor-Leste Demographic Health Survey (TL DHS) 2003**

A cross sectional household survey was conducted over a period of four months from May to August 2003 in which 4320 households were sampled from four different geographic areas in Timor-Leste using a cluster sampling method. The DHS used four questionnaires: the Household Questionnaire, the Women's Questionnaire for ever-married women 15-49 years old, the Men's Questionnaire for ever-married men 15-54 years old, and the Nutrition Measurements form. The raw data set from the DHS was analyzed using only women who had delivered an infant in the past 24 months (as compared to the standard DHS analysis which uses the past 5 years). Baseline rates for HAI's program indicators are now based on these more current data from the TL DHS 2003. See Annex 2A for a summary of the quantitative baseline findings.

2. A Health Facilities Assessment (HFA) was conducted in each of the four initial program districts by program staff in December 2004 (see Annex 2B for full report). The purpose of the HFA was to gather accurate and current information to facilitate detailed planning of the health services improvement arm of the program.

A detailed schedule for the HFA was determined through consultation with the Ministry of Health (MOH) at the central and district level. The sampling frame in each district included: 1) all community health centers (CHC), 2) a selection of health posts, and 3) a private health clinic in two of the districts. Every attempt was made to select health posts with contrasting conditions. Well functioning health posts as well as posts considered to have problematic management or logistics were included. Assessments were conducted at a total of 32 health facilities (19 CHCs, 11 health posts, and 2 private clinics).

Assessment tools were adapted from the WHO Safe Motherhood Needs Assessment. Each assessment included:

- A questionnaire for the head of the District Health Management Team
- An interview with the health facility manager
- Focus Group Discussions with all midwives present on the day of assessment
- Direct observation of midwives conducting antenatal consultations
- Exit interviews with mothers following antenatal consults
- Review of a sample of partographs
- Direct observation of the health facility equipment and supplies relevant to maternal and neonatal health

Qualitative Baseline Data were derived from:

3. A qualitative Community Baseline Assessment took place in two of the initial program districts during February 2005 (see Annex 2C for full report). The purpose of the community assessment was to collect information regarding beliefs, practices, experiences and perceptions of mothers and other community members regarding pregnancy, delivery, postpartum and newborn care in order to facilitate detailed planning of the community-based health promotion arm of the program.

Purposive sampling of community assessment sites to capture urban and rural variances and data relative to ease or difficulty of access to facilities included:

- District town (urban) with community health center
- Sub-district town (rural) with community health center
- Rural village with health post
- Rural village with no health post

A mix of qualitative methods were utilized among four targeted groups: community leaders, women/mothers, men/fathers and *dukuns* or traditional birth attendants (TBA) who work outside the official health system. The methods employed were:

- **Focus group discussions** held separately among mothers, fathers, midwives and community leaders.
- **Semi-structured key participant interviews** with *dukuns* (traditional birth attendants) and community leaders.
- **Semi-structured household interviews** with mothers.

There were a total of 18 focus group discussions, 10 semi-structured key participant interviews with *dukuns* (TBAs) and community leaders and 34 semi-structured household interviews with mothers.

b. The high rates of maternal and neonatal mortality are considered to be one of the greatest problems facing the new health system in Timor-Leste. Maternal deaths related to pregnancy, delivery, and postpartum are estimated as high as 800 per 100,000 live births.<sup>1</sup> The infant mortality rate is 84 per 1,000 live births and the neonatal mortality rate is 43 per 1,000 live births.<sup>2</sup> The combination of baseline surveys and assessments noted above have provided program staff with a much clearer picture of the country context relative to program goals and objectives. Key findings of all the baseline assessments are presented in the four programmatic areas of pregnancy, delivery, postpartum and newborn care. Data for the closely related topic of fertility will also be presented. The four initial program districts will be compared to data for Timor-Leste as a whole.

### **Pregnancy Care**

The TL DHS reveals that antenatal care (ANC) coverage is relatively high for Timor-Leste with 51% of mothers with children 0-23 months reporting receiving at least one ANC visit from a medical professional. Most mothers receive ANC from a nurse or midwife. In HAI's four program districts 50% of mothers reported receiving ANC.<sup>3</sup> Women typically do not go in for their first ANC visit until their fourth month of pregnancy.<sup>4,5</sup>

Many women seem to associate the benefit of receiving ANC only with receiving vitamins and an immunization or having the baby's position checked, while other benefits such as preventing complications, monitoring blood pressure or prenatal education are not well understood.<sup>6</sup> Moreover, the quality of ANC delivered is often sub-standard. Overall in Timor-Leste only 34% of women stated that they had their blood pressure taken during an ANC visit, only 25% were informed about pregnancy complications, and very small numbers had a urine or a blood sample taken (12% and 15%, respectively).<sup>7</sup> In Timor-Leste overall, of mothers with children 0-23 months of age just over half (53%) reported in the DHS survey that they had received a tetanus toxoid (TT) immunization during pregnancy. In the HAI program districts this rate was slightly lower at 49%.<sup>8</sup> However, a later EPI survey showed higher levels, averaging around 60% for the program districts, using the 'card plus recall' assessment method among women who had delivered in the previous year. The Health Facility Baseline Assessment shows that while most of the midwives observed delivering ANC were polite, their communication skills were poor with most midwives not explaining their actions or providing counseling or education of any kind during an ANC consult.<sup>9</sup>

As expected, the Community Baseline Assessment and the TL DHS 2003 reveal that ANC attendance is much lower in more remote rural locations as compared to urban settings. While 81% of women in urban areas report having at least one ANC visit, that proportion is only 56% in the rural Central region.<sup>10</sup> The Ministry of Health (MOH) attempts outreach to rural villages with mobile clinics; however, many of these mobile clinics have irregular

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<sup>1</sup> Timor-Leste Ministry of Health . *Health Profile: Democratic Republic of Timor-Leste*. October 2002.

Unpublished

<sup>2</sup> Timor-Leste Demographic Health Survey 2003.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid

<sup>5</sup> Health Alliance International Qualitative Baseline Community Assessment, 2005. Unpublished

<sup>6</sup> Ibid

<sup>7</sup> Timor-Leste Demographic Health Survey 2003.

<sup>8</sup> Ibid.

<sup>9</sup> Health Alliance International Health Facility Baseline Assessment, 2005. Unpublished

<sup>10</sup> Timor-Leste Demographic Health Survey 2003.

schedules and offer only immunizations and curative care. Only half of the mobile clinics in the four program districts were reported to deliver ANC.<sup>11</sup> Information was not available on the proportion of pregnant women sleeping under treated bednets.

Most women in HAI's program districts seek care from both the formal and informal health sector during pregnancy. Women frequently report that upon discovering that they were pregnant they would first consult a *dukun*, (traditional birth attendant), to receive traditional medicines or abdominal massage. *Dukuns* themselves reported that they advised women to seek ANC at the clinic. In more remote areas of the country when accessibility to a health facility is difficult in terms of travel time (on foot), or expensive (where public transportation exists), women depend more heavily on the informal health sector for pregnancy care.<sup>12</sup>

### **Delivery Care**

*Place of Delivery:* In Timor-Leste the vast majority of women give birth at home. In the country as a whole, 89% of women with children 0-23 months of age gave birth at home. In HAI program districts this was even higher at 94.6%.<sup>13</sup> In the Community Baseline Assessment, women, community leaders and fathers offer many reasons to explain the strong preference for a home delivery. It was frequently mentioned that women are "shy" and do not want to be exposed, therefore the lack of a private space at the health facility is a strong disincentive for a clinic-based delivery. Many respondents reported that the environment at the health facilities does not support important traditional birthing practices such as the preferred upright position of women to deliver, often holding on to a rope hanging from the roof beam or onto a post, and the unavailability of water - particularly hot water - at the clinic to wash mother and baby and apply hot compresses following delivery. In many parts of the country (more common now in rural versus urban settings) there is a traditional practice that women and babies need to lie close to a fire immediately following birth to protect their health and well-being which is again, not an option at the clinic facility. Health facilities are often largely inaccessible to women once in labor and travel to the clinic is difficult and/or expensive. Mothers, community leaders and fathers also reported that it simply is not their custom or tradition to deliver in a clinic setting.<sup>14</sup>

*Delivery Assistance:* Despite relatively high ANC coverage and women understanding at least some benefit of seeking ANC, there is little understanding of the value of having the assistance of a skilled birth attendant during delivery. In Timor-Leste as a whole, 70% of deliveries of children 0-23 months were assisted by only a relative or friend. Only 20% of mothers with children 0-23 months in Timor-Leste, and 16% of women in HAI program districts have a skilled medical attendant (defined as a doctor, nurse or midwife) assisting with delivery.<sup>15</sup>

The Community Baseline Assessment reveals that there is a common belief among respondents that giving birth is a normal process which does not require the presence of a midwife. This belief is largely founded on generations of experience of delivering at home with only family members present. Many respondents report only needing to call a midwife if there is a problem during or after delivery. However, even if a problem does arise there can be a delay in taking action to call a midwife and travel time to the home can delay or

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<sup>11</sup> Health Alliance International Health Facility Baseline Assessment, 2005. Unpublished

<sup>12</sup> Health Alliance International Qualitative Baseline Community Assessment, 2005. Unpublished

<sup>13</sup> Timor-Leste Demographic Health Survey 2003.

<sup>14</sup> Health Alliance International Qualitative Baseline Community Assessment, 2005. Unpublished

<sup>15</sup> Timor-Leste Demographic Health Survey 2003.

prevent the midwife's arrival.<sup>16</sup> Midwives participating in focus group discussions concur that family members and/or *dukuns* are the most common assistants for deliveries and report the reasons for this are access (distance), unwillingness of women and families to travel to the clinic at night; "shyness" or modesty such that women do not like to be seen by even midwives without clothing; cost of transportation; and that women in the rural areas have more confidence in *dukuns*.<sup>17</sup> The DHS survey showed a total of 19% of women in Timor-Leste as a whole and 17% in the Central Rural Region reporting a traditional birth attendant as the most skilled person assisting in delivery.

### **Postpartum Care**

All the baseline assessments reveal that the delivery of postpartum care in Timor-Leste is very low. In the TL DHS 2003, 80% of women with children age 0-23 months received no postpartum care. HAI program districts also reflect this national trend with 87% of women reporting no postpartum care following delivery.<sup>18</sup>

Clinic-based postpartum care is hindered in many areas due to the practice of seclusion for mothers and babies following delivery. The women listed a number of postpartum practices that are meant to safeguard the health of the woman after delivery. There is a prevalent belief in the need for mothers to dress warmly, stay in a warm household environment, typically next to a fire ("sitting fire"), and protect mother and baby from cold air and water following delivery. The time period for household seclusion varies, but typically lasts from 40 days to three months.<sup>19</sup>

### **Newborn Care**

In Timor-Leste overall, 80% of newborns do not have a health professional or even a TBA check on their health following birth. The four program districts reflect this national trend of very low rates of postpartum care for the neonate: in Aileu, 92.5% of mothers report no newborn check, this rate was 96.8% in Ermera, 76.3% in Liquica and 75.7% in Manatuto.<sup>20</sup> Only 5% reported having a newborn check during the first week of life, the most vulnerable time. Mothers commonly reported that they would take their babies to the clinic for the first time at one month of age to be weighed and receive immunizations.<sup>21</sup> Both mother and father respondents in the Community Baseline Assessment often show very limited knowledge about key signs of newborn illness. Newborn morbidity and mortality were often ascribed to supernatural or social causes, such as bad relations in the family, which likely leads to delays in the recognition of the need to seek medical attention.<sup>22</sup>

Although biomedical attention for the newborn is not commonly sought until the first month of life, a naming ceremony known as *fase matan* is typically held within 3-5 days of birth. This ceremony, which occurs at dawn, and the accompanying feast is typically attended by the birth attendant as well as family members. *Fase matan* translates literally as 'washing of the eyes' and is said to be important in prevention visual problems for both the baby and the family members. It is commonly practiced in most of the program sites assessed.

Breastfeeding, although essentially universal, does not include immediate breastfeeding after birth and feeding of colostrum for a significant proportion of women. Recent surveys

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<sup>16</sup> Health Alliance International Qualitative Baseline Community Assessment, 2005. Unpublished

<sup>17</sup> Health Alliance International Health Facility Baseline Assessment, 2005. Unpublished

<sup>18</sup> Timor-Leste Demographic Health Survey 2003.

<sup>19</sup> Health Alliance International Qualitative Baseline Community Assessment, 2005. Unpublished

<sup>20</sup> Timor-Leste Demographic Health Survey 2003.

<sup>21</sup> Health Alliance International Qualitative Baseline Community Assessment, 2005. Unpublished

<sup>22</sup> Ibid.

show low rates of exclusive breastfeeding at 4 months ((39% DHS, 53% MICS) and lower rates still at 6 months (18% DHS, 44% MICS).

### **Fertility**

Timor-Leste has the highest recorded rate of fertility in the world. The TL DHS 2003 reports the current TFR for Timor-Leste at 8.3. There is a strong preference for large families, the overall “ideal” family size is 5.7 children. Additionally, there is low knowledge about and utilization of contraceptives. Seventy-five percent of women report they have never used anything to delay or avoid pregnancy. Only 19% of women have ever used contraception and 9.8% are currently using a method.<sup>23</sup>

### **c. Constraints to achieving program goals**

Timor-Leste became the newest nation in the world in May 2002 and the systems of governance across sectors are still in the development phase. While there has been focused attention within the Ministry of Health to develop health policy and strengthen the health system capacity through training nurses and midwives, who provide the majority of primary care in the country, problems related to quality of services, availability of essential supplies and medicines, adequate supervision of clinical staff, outreach of services to rural areas, and lack of a reliable system to track and report health information continue to be concerns.

Access to health services is a challenge in Timor-Leste. Both the quantitative and the qualitative baseline data confirm that the utilization of health services is significantly reduced in the ubiquitous rural and remote environments of the program districts and the country as a whole. Currently outreach services to rural and remote areas are sporadic and unreliable and frequently do not include important maternal services. Furthermore, there is low demand among communities for such services as skilled labor attention and post-natal care. Key to program success will be to both increase community demand for maternal and newborn services through community health promotion and work with the MOH to establish reliable outreach services.

Culturally-bound practices and traditional perceptions that undervalue the benefits of some maternal and newborn care, particularly skilled birth attendant at deliveries and postpartum and newborn care, will require innovative strategies that seek to incorporate rather than displace safe traditional practices.

### **d. Coverage estimates**

The following tables outline coverage estimates in the service area relevant to maternal and newborn care. The data source is the 2003 Timor-Leste Demographic and Health Survey unless otherwise indicated.

Percent EPI Coverage rates for in program districts (from the 2004 Timor-Leste Immunization Coverage Survey)

<b>Program Districts</b>	<b>BCG</b>	<b>OPV/DPT1</b>	<b>OPV/DPT3</b>	<b>Measles</b>
Aileu	18 / 87*	17 / 88	14 / 84	13 / 84
Ermera	7 / 49	7 / 32	7 / 28	6 / 29
Liquisa	25 / 78	24 / 61	19 / 49	17 / 48
Manatutu	26 / 81	27 / 82	24 / 72	21 / 71

\*Figures in the table are % coverage “by card only” (immunization card sighted) / “by card and history”. These figures were calculated using the recent census data as the population denominator.

<sup>23</sup> Timor-Leste Demographic Health Survey 2003.

EPI coverage rates for Timor-Leste (2003 DHS, recall only)

BCG	DPT			Polio				Measles
	1	2	3	0	1	2	3	
75.1	68.1	53.9	37.5	76.8	69.1	52	26.4	56.4

Percent of women who received TT immunization during last pregnancy (DHS)

Tetanus Toxoid Received	Aileu	Ermera	Liquica	Manatuto	All 4 Districts	Timor-Leste Overall
Yes	62	34	50	60.9	48.4	53.1
No	38	66	48.8	39.1	51.4	46.5

Percent women of children age 0-23 months who report receiving antenatal care (ANC) from a skilled provider during last pregnancy (DHS)

Aileu	Ermera	Liquica	Manatuto	All 4 Districts	Timor-Leste Overall
41.5	49.5	48.3	59.2	50	51

Percent women with children age 0-23 months who had a skilled birth attendant assist with delivery\* (DHS)

	Aileu	Ermera	Liquica	Manatuto	All 4 Districts	Timor-Leste Overall
% deliveries attended by a skilled birth attendant*	6.6	20.3	9.5	18.8	15.6	19.9

\*Skilled birth attendant is defined as a doctor, nurse or midwife

Percent women who report having a postpartum check following delivery (DHS)

Postpartum care received	Aileu	Ermera	Liquica	Manatuto	All 4 Districts	Timor-Leste Overall
Yes	4.9	3.8	24.1	25.5	12.7	19.9
No	95.1	96.2	75.9	74.5	87.3	80.1

Percent women who report their newborn received a newborn check by a skilled medical provider\* (DHS)

Newborn care received	All 4 Districts	Timor-Leste Overall
Skilled provider	7.2	16
No one	90.1	78.7

\*Skilled medical provider defined as a doctor, midwife or nurse

#### e. Routine disease surveillance

Disease surveillance data in Timor-Leste remains very limited at this time. In 1999 The World Health Organization (WHO) in Dili established a system of regular reporting of eleven

communicable diseases for all government health facilities, with the results published in a regular weekly epidemiology bulletin. Since the Ministry of Health (MOH) assumed responsibility of this activity in mid-2003 there has been no regular collation and reporting of these data. However, a comprehensive national health information system has recently been developed and will soon be implemented in pilot format. While the system is in the process of being re-established, there are no data available for 2004/2005. Diseases of particular relevance to the HAI program on this system and for which data will become available are maternal malaria and neonatal tetanus.

The only disease surveillance data available at this time are for the recent outbreak of dengue fever and HIV/AIDS:

*Dengue Fever:* Since January 2005 Timor-Leste has been experiencing an epidemic of dengue fever and reinforced disease surveillance has been established for this condition. The epidemic is concentrated in the capital Dili district, however, since the epidemic began, the following cases and fatalities have been reported from the program districts (data current as of March 31, 2005).

District	Dengue cases	Dengue deaths
Liquica	12	1
Manatutu	22	2
Ermera	2	0
Aileu	0	0

*HIV/AIDS:* As of March 31, 2005 there have been 24 cases of HIV/AIDS reported to the CDC department of the MOH. There is no system of screening for HIV except for donor blood.

#### *Data quality*

To date there has been no system of accountability regarding the quality of the routine data collated at the central level. The quality of the routine EPI reporting from the district level health centers is questionable, in part because the rapidly growing under-five age group makes estimating the population denominators difficult. A recent national immunization coverage survey (WHO/UNICEF/MOH December 2004) using a randomised cluster design showed significantly lower figures as compared to the data arising from the district level routine reporting. The new HIS has a built-in system to check for data quality.

#### **f. Policies/Strategies**

HAI will be key partners as the MCH and Health Promotion units of the MOH seek to implement their policies and strategies to improve health in Timor-Leste.

Policy development in Timor-Leste has been a continually evolving process since the new government assumed power in 2002. The primary strategies of the first policy document, the National Development Plan (May 2002), highlighted poverty reduction and reconstruction, health, rural development and education as priorities. The MOH's Health Policy Framework, released soon after, clearly prioritized reproductive and child health. From 2003 until the present time the MOH has focused on micro-policy development. Current strategies/policies<sup>24</sup> relevant to MNC include the reproductive health strategy, the Integrated Management of Childhood Illness (IMCI) strategy, the immunization strategy,

<sup>24</sup> The policy documents of the MOH have formally been designated strategies in order to expedite their implementation and dissemination. By doing so the formal and lengthy process of inter-ministerial policy approval has been bypassed.

the nutrition strategy and the health promotion strategy. A primary health care strategy (the Intersectoral Action Framework for Well-being and Health), a malaria control strategy and an HIV/AIDS strategy exist in draft form. There is not yet a child health strategy or policy beyond IMCI. A policy on marketing of breastmilk substitutes has been drafted and is waiting formal review; it is available only in Portuguese.

*Reproductive Health Strategy (RHS):* The RHS is the key strategy for the HAI program. The strategy is based on a life cycle approach and, like all MOH strategies, it rests upon a foundation of primary health care principles. It consists of four components: 1) Young people's reproductive health (RH), 2) Reproductive choice (Family Planning), 3) Safe Motherhood, and 4) General Reproductive Health (includes strategies directed at men and other reproductive and gender issues).

The abbreviated strategic objectives are:

- To increase the knowledge of the population about RH
- To promote family planning
- To ensure access to RH services
- To reduce the incidence of STI/HIV
- To reduce maternal, perinatal and neonatal mortality and morbidity

Particular sub-components of the RHS relevant the HAI program include the commitment to the provision of basic and comprehensive quality maternity care (quality ANC, clean and safe delivery, and postpartum and newborn care), to establish a system of audit of maternal and neonatal deaths, to develop clinical guidelines for MNC, to trial maternal waiting homes, and to conduct relevant research to facilitate improvement in reproductive health. Additionally, the RHS outlines a structure for policy implementation that includes a Maternal and Child Health District Program Officer in all 13 districts of Timor-Leste following the lead of HAI in supporting this position in the four start-up districts, and the reconvening of a reproductive health working group as a central level coordinating forum.

*IMCI Strategy:* IMCI in Timor-Leste is the primary health strategy for children aged 1 week to 5 years of age. Specifically IMCI addresses infections, breastfeeding, weight gain, and immunization for the neonate. IMCI implementation has led child health policy development in Timor-Leste. The strategy has formed the backbone of child health training for midwives and nurses throughout government health facilities and some private clinics in Timor-Leste. The strategy has four main objectives: 1) to provide a comprehensive package of health care services to sick children (training and structured supervision), 2) to strengthen the health system for more effective delivery of services, 3) to improve links between the health system and the community, and 4) to empower families and communities to identify health needs and care for the health of their children ("community IMCI").

A mid-term review of the IMCI program was conducted in 2003. The recommendations from the review are clearly reflected in the strategy which highlights the challenges to implementation thus far and the actions needed to strengthen IMCI in Timor-Leste. Of particular relevance to the HAI program are strengthening the supervision system and developing "Community IMCI", including emphasis on collaboration with the health promotion department and creating a cadre of community volunteers.

*Immunization strategy:* The immunization strategy emphasizes access to and equitable distribution and coverage of vaccines and vitamin A. Strategic objectives relevant to the HAI program include:

- To reduce infant and under-5 mortality
- To eliminate maternal and neonatal tetanus

- To strengthen the health system (specifically to strengthen management)
- To increase education and evoke behaviour change of the population at large

The strategy outlines a plan to add Hepatitis B vaccine to the routine (6 antigen) EPI schedule for Timor-Leste; this is of particular relevance to the HAI program as it implies contact with the mother/baby in the first days postpartum.

*Nutrition Strategy:* The nutrition strategy of Timor-Leste has two arms a) maternal and child nutrition, and b) food security. Like the RHS, the nutrition strategy has a lifecycle approach; efforts to improve maternal nutrition aim, ultimately, to protect fetal and infant growth and, thus, to prevent childhood malnutrition and malnutrition of “mothers-to-be”. It includes specific interventions to reduce maternal anaemia, iodine and vitamin A deficiency and to reduce low birth weight, child underweight and vitamin A deficiency. Food supplementation is proposed as well as micronutrient supplementation for vulnerable groups such as low birth weight babies and malnourished pregnant women. The strategy emphasizes community involvement and education in its implementation.

*Health Promotion (HP) strategy:* The HP strategy background highlights the constraints encountered in delivering effective HP in Timor-Leste. These include limited staff proficiency and the gap that exists between the health facilities and the community. The strategy itself incorporates five strategic approaches: 1) strengthening community action to develop shared responsibility for health, 2) targeted HP programs addressing priority needs (including key reproductive health elements such as referral of MCH complications and increase skilled attendance at birth), 3) increasing knowledge and skills to promote health, 4) developing effective targeted communication, and 5) monitoring and evaluation of HP initiatives. The planned community action includes a commitment to develop a system for community health volunteers and the development of district health councils. The plan for targeted HP initiatives is to implement them as small-scale activities and to scale up according to their effectiveness.

*Malaria:* A national malaria strategy exists in draft format, pending revision. Key to the HAI program is policy regarding management of malaria in pregnant women. Although the draft strategy recommends routine chemoprophylaxis for pregnant women, more recent directives from the MOH recommend effective prompt treatment of symptomatic patients (with national treatment guideline) and no routine prophylaxis. Inadequate ANC attendance rates made a policy of regular chemoprophylaxis unfeasible. Further policy decisions are pending and the results of current prevalence studies will presumably inform this process. The strategy includes distribution of free impregnated mosquito nets to high risk groups -- specifically pregnant women and children under 5 -- but concedes this is dependent on implementing partners because of the unsustainable financial burden it would place on government funds to do this alone. The strategy nominates the proportion of hospital births < 2.5kg and the proportion of women with severe anaemia in the third trimester or at delivery as key indicators.

*The Intersectoral Action Framework for well-being and health (IAF):* The strategic goal of the IAF is “to enhance the wellbeing and health of the people and communities of Timor-Leste through a shared understanding of public health problems and a combined approach of all of government along with the community itself to address key determinants of health”. The IAF was formed in recognition of the need for multi-sectoral collaboration, at all levels from government through to communities, in order to improve health. The framework is a commitment to a primary health care approach as fundamental to the health system of Timor-Leste.

*Current MOH Services for Maternal and Newborn Health:* Health care services in Timor-Leste are still undergoing expansion and rehabilitation of the health facilities is not yet completed. Current health services can broadly be divided into two levels of service, primary health care and referral level (hospital) care. Primary health care services are delivered by midwives and nurses who form the backbone of the primary health care system. A common (“basic”) package of services is delivered from community health centers (CHCs), health posts and mobile clinics. Primary health care services for pregnant women in Timor-Leste include antenatal care, safe and clean delivery care, postpartum care and immunization. Primary health care services for neonates include IMCI (which covers common conditions of the neonate aged 7 to 28 days), breastfeeding counseling, growth monitoring and immunization (BCG and polio are recommended at birth or as soon as possible after birth). Health promotion is, at least nominally, a component of each of these services. Diagnostic services are limited to malaria smears and, in a few places, haemoglobin and urine analysis.

Referral level care services are provided by a combination of nurses, midwives and medical staff, both generalists and specialists. Referral level care is only available in five of the thirteen districts. The National Hospital in Dili, the capital city, is the referral center for all four HAI program districts. Referral care available at Dili National Hospital and relevant to MNC includes comprehensive emergency obstetric care (ultrasound, surgical capacity, blood transfusion, oxygen) and limited neonatal services (blood, oxygen, phototherapy and incubator care). Diagnostic services include basic radiology, biochemistry, serology (includes HIV, VDRL, hepatitis), haematology and cross-match.

Currently the MOH does not provide training or other support to *dukuns* (TBAs) but recent discussions indicate that there may be changes in this policy in the near future.

#### **g. Quality of existing services**

Baseline assessments included a comprehensive assessment of health facilities and services relevant to MNC in the four program districts (Annex 2B). Key findings from the health facility assessment include:

*Staffing:* Human resources in the health sector are still limited in Timor-Leste. Some remote clinics do not have a resident midwife so nurses, who are not yet trained in ANC or delivery care are providing MNC services. Midwives only attend about half of the mobile clinic services in the program districts. District midwifery staff have not all been trained in emergency obstetric care and no staff have received adequate training in neonatal resuscitation or care. To date, training in neonatal care is restricted to IMCI and breastfeeding counseling and while the majority of nurses and midwives in two of the program districts, Ermera and Liquica, have participated in these trainings, those from Aileu and Manatutu have not. With few exceptions, after-hours services rely on midwives being on-call from their homes.

*Quality of service/program implementation:* The fundamental programs of the “Basic Package of Services” are being implemented in most facilities, however there is virtually no system of quality assurance for any program or service. Clinic management skills are generally weak and, with the exception of one supervision visit following IMCI training and occasional supervision from members of the district health team, there is no regular supervision of clinic staff.

An obvious “gap” in MNC service provision is postpartum/neonatal care. As mentioned previously, the majority of mothers in Timor-Leste deliver their babies at home and most deliveries take place without a skilled birth attendant. Culture dictates that the mother and

her newborn remain in the home for a month or longer after delivery. As a consequence, newborns are rarely seen before a month of age and few mothers and babies undergo a postpartum check, missing the chance for reinforcement of important messages such as the need for exclusive breastfeeding. There is no established system or standards for postpartum care either in the facility or in the homes. There is currently no system in place of community health workers who could participate in such a service although pilot efforts are planned for some areas.

*Client-health worker interaction:* The lack of supervision is reflected in the quality of many client-health worker interactions. Although consults usually contain the fundamental items of care they are notably lacking in any quality counseling. This means that valuable opportunities for health education and birth preparedness are lost. In general, health promotion is cursory. It is limited to displaying posters and handing leaflets to clients who are often illiterate. The health education material inside the mother/child card, for example, was not used during the 50 or more consultations that were observed during the health facility assessments. The lack of counseling is particularly concerning given the poor understanding of health and the deferential and non-questioning manner of most of the mothers served.

*Standard documentation:* The system of documentation for MNC has recently changed – new logbooks and mother/child cards have recently been developed and issued. This is creating some confusion among staff and there is significant duplication of recorded information as facilities transition between systems. Partographs, the standard for documentation of deliveries, are rarely used and often unavailable at facilities.

*Standard case management:* Nurses and midwives have been trained in common programs (IMCI, Safe Motherhood, EPI and breastfeeding) using standardized clinical guidelines. Only IMCI, however, has clinical aids and protocols that are available and in-use at the health facilities. There are no guidelines/protocols for maternal health although clinical manuals are currently being produced. Neonatal health is addressed in a limited way (see above) by the IMCI guidelines. Recently, materials have been produced for health promotion for MNC and IMCI, however they have not yet been implemented for use in the health facilities.

*Facility Logistics:* Few facilities provide private, clean space for ANC and birthing. Many facilities, particularly the more remote ones, lack running water and electricity. Systems of communication are unavailable at most health posts and district transport is limited to one centrally located ambulance; together these logistic limitations make emergency referral an unacceptably prolonged process.

*Drug availability* (also detailed in the health facility assessment report): The complete set of standard essential medications was rarely available at facilities; however, most facilities visited had most of essential medications appropriate to their level of service provision. Exceptions were contraceptive medications which were found to be in dire short supply. Contraceptives have only recently been promoted in Timor-Leste and the supply problems undoubtedly reflect this.

*Other supplies:* Obstetric instruments, though available at the CHCs, were clearly not in use. Neonatal resuscitation equipment (heater, Ambu bag and mask) is unavailable at health facilities; most have small disposable suction apparatus.

**h. See Annex 6 for Rapid CATCH data.**

## **2. Program Description**

**Fit with USAID priorities:**

**The first two Intermediate Results (IRs) of the CSHGP** are to increase the quality and sustainability of PVO programs. Improving quality of MOH services while assuring their sustainability are primary aims of this program. Program activities are carried out by MOH staff with HAI support and assistance, which promotes the gradual acquisition by the MOH of the skills, motivation, and improved work habits necessary to improve quality and sustain it over the long term. At the same time as health services are improved, intensive work at the community level will promote increased understanding and use of appropriate home care practices and health services.

**The 3<sup>rd</sup> IR** is the development, adaptation, testing and application of strategies, tools and approaches to improving maternal and child health, including the scale-up of successful approaches. One of the main aims of this program is to test new approaches to both service provision and involvement of communities in the initial program districts, with scale-up to the entire central region by the time of program completion. This will include new approaches to both the delivery of health services and outreach efforts that are tailored for the specific characteristics of the local communities and cultures. The MOH has expressed its commitment to support expansion of successful program activities to the entire country as soon as feasible. The first step towards that goal has already been taken: following HAI's designation of district level District Program Officers (DPOs) for the program four startup districts, the Minister of Health made the decision to deploy MCH DPOs for all districts of the country.

The USAID mission in Timor-Leste has completed its strategic plan for 2005-2009. The new Results Framework includes a special objective (SpO 3) that targets 'Improved health of the Timorese people, especially women and children at greatest risk.' The intermediate results (IRs) include 'Increased use of key maternal and child health practices' (IR 3.1) and 'A community health network established to effectively support key maternal and child health practices.' The HAI program is clearly in direct support of the Mission's special objective and will be a key partner in both contributing to and documenting the achievement of these intermediate results.

**Program objectives and activities** for the maternal and newborn care intervention are given below. In addition, a table that summarizes key activities according to the level of influence (health policy, health system, or family/community) is attached as Annex 7.

**Health system objectives:**

1. 90% of MOH health facilities in the program districts will have at least one staff member skilled in the key elements of antenatal care (ANC) and in communications skills for maternal and newborn services.

**Activity:**

With NCHET staff, review ANC technical standards and train all MOH midwives in communications skills for maternal and newborn care.

**Rationale**

A key priority for the MOH is to upgrade the skills of all midwives and other staff who provide maternal care services. At this time all midwives in government service have been trained or are scheduled to be trained in both the standard WHO 'safe and clean' delivery practices, and in the management of obstetric complications (Basic Emergency Obstetric Care - EMOC). These trainings will be completed by late 2005.

Technical skills in the provision of antenatal care have also been upgraded in the course of

the 'safe and clean' delivery training. National standards for antenatal care have been completed, although future revisions are expected in recommendations for antenatal malaria prevention and management of pregnant women with malnutrition. Communication skills, however, have not been specifically taught and are an important gap in services as outlined in the health facilities assessment. Communication skills include counseling in critical areas, e.g. birth preparedness, normal newborn care, planning for emergencies, recognition of danger signs related to pregnancy and newborn health, and respectful two-way communication with clients. We expect that the benefits from improved communication skills will have several positive consequences. Some women report that the reason they do not come to the clinic for ANC or call the midwife to assist with their delivery is because they feel shy. In addition, there are many women who come for one antenatal visit but then do not return for further follow-up visits or for delivery services. Experience from Indonesia has shown that training for midwives focused on personal skill-building can be a very effective way to improve interpersonal communication in practice.

It is likely that if the midwives improve their communication skills in such a way so as to establish a warm, respectful and supportive relationship with women early in their pregnancy, women would be much more inclined to seek additional contact with the midwives. If time is taken to offer comprehensive counseling and advice in a respectful and supportive manner, pregnant women may come to consider this as one of the benefits of seeking the assistance of a midwife during pregnancy as well as delivery. With the support of a consultant, the program will provide training of trainers for District Program Officers and NCHET trainers. Rather than carry out a full centralized training, motivational and practice sessions on communication skills with ample use of modeling and role play will be conducted for all midwives and nurses at the district level.

Although currently there is no pre-service training of nurses in Timor-Leste, a midwifery training program has recently been re-opened at the national training center (NCHET). Currently a class of 30 nurses is being trained in midwifery skills to fill the need for better midwifery coverage in rural areas. The materials that HAI and partners develop for maternal and newborn care will be offered for inclusion in this curriculum.

The MCH Working group, consisting of representatives of key organizations involved in maternal and child care services in Timor-Leste, advises the MOH on matters of priority and policy for MCH services. Although it was dormant for some time, HAI staff are reinstating regular meetings of that group, and antenatal care training needs are one of the first topics that will be addressed. See Annex13 for the agenda of the first MCH working group meeting and terms of reference.

2. 90% of MOH health facilities in the program districts will have at least one staff member skilled in the key elements of essential postpartum/newborn care including resuscitation skills.

Activity:

With NCHET staff, develop a curriculum and implement training for all MOH midwives and nurses in postpartum and newborn care.

Rationale:

To date midwifery/nurse training of relevance to postpartum/neonatal care in Timor-Leste includes IMCI, breastfeeding promotion, safe motherhood and family planning. Although each of these trainings includes elements relevant to postpartum/neonatal care, none addresses either postpartum or newborn care in a systematic or comprehensive fashion. Important areas such as newborn resuscitation, recognition of danger signs and management of sick and small newborn have not been addressed at all. The HAI technical

advisor has already adapted existing training materials on neonatal resuscitation and care of immediate newborn problems and conducted training for midwives at Dili National Hospital. This two-day training is included in the EMOC training for midwives at CHC and referral hospitals throughout Timor-Leste.

The major training activity for this program will be the development of a training curriculum for postpartum and newborn care, based on existing materials, and the preparation of NCHET trainers who will implement the training for all government midwives. The training for midwives will be conducted as a full Dili-based training with clinical practice at the national hospital in Dili. The best model for this training has not yet been determined. The choice to be made is whether to use the standard WHO/UNICEF training materials for integrated maternal/newborn care services, which have already been translated and adapted for Timor-Leste, or to develop this training as an extension of the IMCI approaches in which all MOH staff have already been trained. Determination of which approach to take (or perhaps a combination of the two) will be made after consultation and discussion at the MCH working group forum. or both antenatal and postpartum/newborn care training, basic standards and protocols for care will be posted at all service delivery sites to assist the midwives in practicing their skills. Wall charts will also be developed as on-the-job aids for antenatal and postpartum/ newborn care. Supervision visits will focus on assuring that the skills acquired during the training are implemented in practice. A review of supervisory check lists will allow the DPOs as well as HAI and MOH staff to monitor the extent to which the training has improved quality of services, and to take steps to support improvements where they are needed.

The HAI/MOH program for newborn care will be integrated with the national IMCI-community IMCI approach in the following ways:

- All neonatal health messages will be consistent with IMCI messages
  - IMCI-trained staff will also be trained in maternal/newborn care
  - If and when the standard IMCI approach is expanded to include the newborn, the program will be involved in implementing that strategy
  - All health system strengthening activities, including supervision, are integrated with IMCI approaches (such as the integrated supervision tool, which does include IMCI)
  - The program collaborates closely with the MCH department of the MOH, which is committed to implementation of IMCI
  - HAI will collaborate closely with the AISMI project, which also will be supporting the strengthening of IMCI activities.
3. 90% of MOH health facilities in the program districts will have available and accessible the essential supplies and equipment for antenatal and safe delivery care
  4. 90% of MOH health facilities in the program districts will have available and accessible the essential supplies and equipment for postpartum/newborn care

Activities: With MCH District Program Officers and staff of MCH unit, pharmacy services of MOH and SAMES (central pharmacy), review and refine systems for assuring quality care, including monitoring supplies and equipment at each health facility.

Rationale:

In Timor-Leste health facilities are supplied with drugs and supplies as listed in an essential drug list (adapted from WHO standards) and a national catalogue of consumables (both finalized August 2004). Monitoring and ordering of supplies depends on facility managers ordering from the central pharmacy (SAMES) via the DHMT. Orders are placed on standardized order forms developed through MOH/ SAMES. Nonetheless there are ongoing

problems with timely and appropriate ordering as well as distribution and supply. Funding for drugs and supplies comes from funds donated from EC donors and UN agencies.

The recent health facilities assessment identified current problems with supplies of both drugs and equipment necessary for ANC, safe and clean delivery and neonatal/ postpartum care (see Annex 2B). The most apparent gaps were supplies of contraceptive medication and devices and supplies and equipment necessary for neonatal resuscitation. Currently a WHO management training program for health facility managers is in its early stages; when completed, the manager at each facility should be well prepared to assure a consistently available supply of essential supplies and equipment.

In the interim, the MCH DPO will be trained in the use of a standard checklist of essential supplies for MNC which will be used as a supervision tool for the facilities in her district. The checklist will be consistent with the national program standards -- Safe Motherhood, EMOC, IMCI -- and the national essential drug and consumables lists. The checklist will be incorporated in the health management information system, currently under development. As postpartum and newborn care have not yet been systematically addressed within the health system, the supplies and equipment considered necessary for care are not yet established. As the standards and training for these areas are established, the supplies and equipment needed at each level of facility will be determined.

#### **Family and community objectives:**

##### **Antenatal Care**

5. Antenatal care utilization in program districts (two or more visits) will increase from an estimated 45% to 70%.
6. Tetanus toxoid immunization during the last pregnancy (one injection) will increase from 60% to 70%

##### **Delivery**

7. Deliveries by a skilled birth attendant in program districts will increase from 16% to 30%.

##### **Post-Partum**

8. The proportion of women who have given birth in the past year who have had high-dose Vitamin A supplementation within 8 weeks of the delivery will increase from 28% to 60%.

##### **Newborn Care**

9. The proportion of infants ages 0-5 months who are exclusively breastfed will increase from 29% to 45%.
10. 50% of mothers of a child ages 0-23 months will know the danger signs of newborn illness.

Activities: HAI will work with district MOH staff, community based organizations, other district-based health providers, community volunteers and community leaders to promote appropriate home care for mothers and their newborns and to increase utilization of antenatal care, skilled attendance at birth, postpartum and newborn care provided by facility midwives and nurses. Staff at a number of international and indigenous NGOs working in the program districts will be included whenever possible in community health promotion efforts (see Annex 11 for a listing of currently active NGOs in the program districts and their areas of activity and potential collaboration). HAI also plans to seek funding to produce a video promoting the key messages for health for pregnancy, birth and the postpartum period for widespread use and dissemination at district and community levels.

As outlined in the baseline assessment, use of health services is unusually low in many areas and community understanding of the best home care practices and of appropriate care seeking for pregnant women and newborns is poor. The community health promotion strategy of the program will build on existing local community level leaders and structures including traditional leaders, civil authorities, traditional healers and birth attendants, women's groups, community-based organizations, and church leaders. Other newer organizations, such as the microfinance network, will also be approached to participate in training and followup activities. The DPO and corresponding DHMT will be responsible for monitoring and coordinating these activities, with active support from the HAI and MOH teams.

The MOH department of health promotion plans to train a cadre of community health volunteers (named "family health promoters") during the next 12 months, although details for this activity have not yet been determined. HAI will collaborate closely with the department of health promotion and other in-country organizations working in the HAI program districts (e.g. UNICEF) that are committed to developing a community based workforce. Family health promoters thus may be involved as both promoters of care-seeking and also as monitors of satisfaction with care, producing a community demand for services of acceptable quality – with the understanding that access to quality health care is a basic human right.

In addition, HAI will work closely with breastfeeding counseling trainers who have already been trained by Alola Foundation. While there are mothers' support groups already formed in several of the program districts, some of these groups are not particularly active, and suffer from lack of supervision. HAI has already had discussions with Alola Foundation and will work closely with these trainers at a district level to maximize the utilization of their skills and to encourage improved links between the MCH DPO and mothers' support groups.

The baseline assessments (see Annexes 2A, B, and C) highlight the main barriers to accessing and delivering quality care during pregnancy, birth and the postpartum period. The key findings are summarized here. These issues will be used to shape health promotion for ANC, delivery and postpartum care at the community level. This will include determining how the community health volunteers and others can best engage with these issues.

#### Antenatal care:

The baseline assessments determined that access to ANC still remains difficult for many women, particularly those who live in areas far from health facilities or in areas that are serviced only by mobile facilities, which may not offer regular ANC services. In addition, it was found that understanding of the benefits of early and regular ANC as well as the benefits of the individual components of ANC is, in general, poor. *Dukuns* are often consulted during the antenatal period, sometimes in addition to regular ANC, and women often use traditional medicines provided by the *dukuns*. Men are rarely involved in ANC yet they have significant influence over women's behavior during pregnancy and birth.

#### Delivery care

In contrast to the reasonable percentage of women who utilize ANC, very few women in Timor-Leste follow the recommendation of having a midwife at their deliveries. There is very poor understanding of the need or benefit of having a midwife present during the delivery process. Midwives are perceived as only being necessary when complications arise which, combined with the logistic difficulties of getting a midwife in a hurry, mean that help, when it is finally accessed is often too late. This is consistent with a general pattern of care seeking for ill-health in Timor-Leste. There is rarely any prior planning for such emergencies at either the home or community level. Community resources need to be

considered and communities need to be involved in shared responsibility for such contingency planning. Communities and their local health staff need to work together to determine the safest plans for women and newborns, acknowledging cultural norms but also acknowledging the well documented risks of current practices.

#### Postpartum/newborn care

A system for postpartum care is not established in Timor-Leste. Both cultural traditions and the absence of any outreach service for postpartum care mean that there is rarely contact between mothers/babies and health staff during the postpartum period; the period when the majority of maternal and newborn deaths occur. There is a lack of appreciation of the need for postpartum care by the community and, similarly, health staff do not have a good appreciation of postpartum problems, particularly those of the neonate. Systems of delivering postpartum care will need to be addressed, involving community health providers and also involving dialogue between community leaders and health personnel. There is a need for widespread promotion of the risks to the mother and newborn during the postpartum period. This will need to happen concurrently with activities aimed at building the skills of midwives and nurses in postpartum/neonatal care. Utilising cultural practices such as the *fase matan* ceremony during the first week of life to promote postpartum contact and care will be piloted. The program will also explore the possibility of working with traditional birth attendants and/or community health volunteers to provide initial screening visits to newborns and their mothers in areas without reasonable access to health services. The dangers of poor breastfeeding practices and the benefits of “tangible” postpartum interventions such as vitamin A for mothers and immunization of babies will receive particular attention.

#### **a. Behavior change communication**

The program will support efforts to incorporate a behavior change approach into both community health promotion and health worker training and support activities. See Annex 8 for a summary table of the program’s BCC plan.

#### Behavior change: family and community

The first major field activity of the program was the detailed qualitative community baseline assessment in two of the program's districts. Although extensive quantitative information was already available from previous UNICEF and DHS surveys, little recent qualitative information was available. The purpose of the assessment was to identify community-level cultural and social influences on home care and care-seeking that could be used to shape the program as it developed. Key findings, and a number of examples of how the findings will be used to support both improved home care practices and health seeking-behaviors, are given in the annexed report.

Community health promotion will include the training of community leaders and staff of community-based organizations to link effectively with villagers, both in listening to their concerns and in providing key program messages. The program recognizes the need to provide convincing messages that are both culturally appropriate and emphasize a relatively small number of behaviors, if useful change is to occur. Currently the national plans for involvement of community health volunteers are in early stages; their role vis-à-vis existing community leadership structures is not clear at this time.

#### Behavior change: health services

MOH midwife training programs will incorporate key findings of both the community qualitative assessment and the health systems assessment. One of the major findings of the health facilities assessment was the striking lack of teaching or counseling of the pregnant woman during antenatal care, as well as very poor communication patterns

overall. The initial training activity will be an effort to address this lack, as described above in the section on training of health staff. Although these are deeply ingrained habits that date back to the period of Indonesian domination, we are hopeful that innovative training combined with supportive supervision visits by the DPO will facilitate a gradual change in the behaviors of midwives and nurses as they interact with patients.

It is widely acknowledged that many MOH midwives currently do not envision their role as providing outreach or education into the community. A primary purpose of the training of midwives and the deployment of a new cadre of district-level worker, the MCH District Program Officer (DPO), is to broaden the awareness of health staff regarding the need for community outreach and help them develop a population-based approach to assuring services. Following training, HAI staff will provide intensive supervisory follow-up visits to assure that the health system itself is supportive of the midwives' expanded roles (appropriate health education materials, compensatory time for home services after hours, etc.), and to assist staff in putting their newly trained skills into action.

The baseline report provides more detail as to how the findings will be used in developing the program. As a matter of policy, the MOH recognizes the need to find district-level solutions to some of the more pressing problems of access and utilization of services. Some strategies will thus be developed for the program as a whole, and in other cases specific approaches will be modified according to local circumstances. The program thus recognizes that the promotion of a single strategy is not necessarily realistic for all geographic areas. Three proposed pilot efforts are:

1) *'Birth friendly' facilities.* An important finding of the qualitative community assessment was the reluctance of women to deliver at MOH clinics, which appears to be due in part to a range of culturally-defined reasons, such as lack of privacy, need for ample supplies of hot water, and the need for specific physical supports such as a bamboo bed and a rope hanging from the rafters to support pushing for the final stage of delivery. A policy option currently being planned nationally is the use of maternal waiting homes to assure greater access to skilled birth attendance. Depending on the effectiveness of the present model, the MNC program will propose a pilot effort to modify some of the waiting homes to provide a 'birth-friendly' facility, which could be a more home-like setting in which to give birth. Such a facility could continue to function as a waiting home but also as an incentive for women to have a culturally-comfortable yet safe setting for their deliveries, including the involvement of families if desired. Pilot efforts to modify health facility delivery areas in a similar fashion will also be tested. A necessary prerequisite to both of these activities will be reviewing the evidence for benefit/harm from each of the currently documented traditional birthing/postpartum practices. Involving local communities in planning for these birth-friendly facilities will serve to promote facility based birthing, will link communities to health facilities and their staff and will ensure the facilities are stocked with the items deemed most essential by the communities themselves. These steps will all increase the likelihood of success of this project.

2) *Incentives for home delivery by midwives.* The baseline assessment indicated that many MOH midwives currently attend deliveries in the home, but these still represent a very small proportion of deliveries overall. Given the reluctance of women to deliver at health facilities, a proposed interim strategy to increase birth attendance by midwives will be to promote home deliveries by facility midwives by providing incentives such as compensatory time off per home delivery attended. Assuring assistance with transport to homes that are not near the health facility would also provide a structural incentive for this change of midwife behavior.

3) *Using traditional practices and practitioners to increase newborn/postpartum care.* The cultural practice of *fase matan* is the naming ceremony for infants that takes place at 3-5 days of age and is practiced widely in many areas. It includes a 'washing of the eyes,' which is meant to safeguard the infant's vision. The event traditionally includes a feast, to which the birth attendant is invited. We plan to encourage communities to consider other ways to safeguard the infant's and mother's health at this time by including the nearest MOH midwife in the ceremony. The midwife could use the opportunity to provide a newborn and postpartum check, including BCG immunization, eye care, and vitamin A to the mother. We plan to promote this practice and evaluate carefully to assess its effectiveness in increasing postpartum and newborn care rates.

In areas where trained midwives are not within reasonable distance of the home, HAI will explore a range of options for reaching mothers and newborns after delivery. One possible approach is to explore the role of *Dukuns* and/or of community health volunteers in providing an initial screening visit to new mothers. The *dukun* or CHV could identify women or infants with possible problems and where a postpartum complication exists, convince families to either call a midwife or take the mother/infant to the nearest health facility. The MOH has recently expressed interest in working with *dukuns* where access to midwives is difficult or impossible, and has expressed support for pilot efforts to test new approaches.

Each of these pilot activities will be formalized and implemented only after consultation and discussion with the MOH.

#### **b. Quality**

The three main challenges of this program related to health services are to improve their quality, access, and utilization. The current system is heavily influenced by the period when it was part of the Indonesian health system. At that time, far more resources, both financial and human, were invested in health than are currently, but paradoxically utilization of the services remained low because of deep distrust of the Indonesian occupation. Most of the health system managerial staff and nearly all of the physicians were Indonesian, most of whom left after independence in 1999. Since 1999 there also has been a gradual shift of populations back to their ancestral lands in more remote areas, where they were forbidden to live under the Indonesian system. As a result, the health system is operating with both a lack of experienced managerial health staff and dramatically reduced geographic access of the population to health facilities. These challenges are greater in the more rural areas.

During the baseline health facilities assessment, discussions were held with midwives and clinic managers in each of the program districts to assess their perceptions of the biggest problems at their clinic to providing quality care. The midwives and facility managers commonly nominated inadequate clinic logistics (lack of communication facilities, water and electricity), inadequate private space, lack of transport, and lack of supplies (see report table) as barriers to the provision of quality antenatal, delivery and postpartum care. Lack of training was nominated as a barrier to provision of quality neonatal/postpartum care. In addition to the problems volunteered by the midwives and managers, the assessment teams found several other issues that clearly impacted on the delivery of quality care. Of particular importance are the lack of supervision, recent changeover of documentation, inefficiencies in documentation systems, and an inadequate system of outreach and health education. Several of these elements have been elaborated on elsewhere in this document. A key function of the midwife refresher training described above will be to use this information to both improve their skills and also to determine modifications in the system that will facilitate improved services. As the training workshops proceed, midwives will be asked to come to consensus on the aspects of quality that are currently most problematic, and suggested refinements of the system.

The District Health Management Team (DHMT) will be an early contact point for discussions of identified obstacles to quality care. The District Program Officer (DPO) is a member of the DHMT, and is expected to work closely with that team in all MNC activities. Other DHMT members include a District Health Services Head and Deputy Head, a communicable disease DPO, and an environment and nutrition DPO. Feasible and sustainable approaches to improving services in a manner that is acceptable to the MOH will be identified during planning sessions at district level. The DHMT and DPO will pilot these approaches in selected areas. All pilot approaches will be carefully monitored for their effectiveness. Examples of approaches targeting identified problems and barriers to care are included in the qualitative baseline report. One example is pilot efforts to increase the number of deliveries attended by the midwives, both in the home and in facilities -- a current priority of the MOH.

Finally, assuring quality education and outreach services at the community level will be necessary if health practices and health status are to be improved and sustained. The qualitative baseline assessment provided ample information about many key areas that will be amenable to program action: providing access to quality antenatal care closer to the women's homes, such as via mobile clinics, and carefully focused and convincing messages about self-care during pregnancy, the value of using skilled birth attendants, postpartum/newborn care, and exclusive breastfeeding.

The program districts include a range of dedicated community groups that are interested in supporting the program's health efforts. As district activities begin, each subdistrict (and in some cases smaller administrative units) will hold informational and motivational workshops for community groups and leaders who will be able to disseminate the program messages into their constituent communities.

An important challenge will be to assure adequate training and follow-up of those groups as they work with district MOH staff to encourage communities to accept new ideas and practices that have the potential of improving the health of their mothers and infants. The Health Promotion Coordinator will, with the program assistants, make regular visits to key community partners to assess their perceptions of progress and the barriers to progress they are encountering. Where important issues are identified, existing community leadership structures will be included in problem solving and adjustments in the approaches used.

### **c. Access to services and commodities**

*Essential commodities/services.* As noted above, improving access to services in the more remote areas is a major emphasis of the program. Creative ideas will be necessary when looking at how to improve the uptake of antenatal, partum and post-partum and newborn services provided at health facilities or how to broaden the outreach services by health staff. Operations research in collaboration with the District Health Management Teams to address improved access to quality services will be a key element of the program, with specific issues discussed during the MCH working group meetings. Commodities needed include: essential medications for MNC (see list in annex of health facility assessment), insecticide-treated bednets, clinical guidelines for MNC and health education materials. The majority of basic equipment needed for antenatal, delivery, postpartum and newborn care has already been provided to the health facilities, with major recent inputs from UNICEF. However, additional equipment required to improve the quality of essential interventions such as simple newborn resuscitation equipment as well as equipment and material for checking for anemia in pregnant women has already been identified (see above).

The MOH and WHO have recently begun the baseline assessment for a course in management for health facility managers that will commence later this year. This course also addresses issues of supply management for lower levels of the health system, and thus will address the need to improve the reliability of essential supplies for program needs.

*Reliability of Supply.* Assuring access to drugs and supplies that are needed at the level of health facilities is the responsibility of the District Health Management Team, and the MCH DPO in particular. The country's central pharmacy (SAMES) supplies pharmaceuticals from the WHO Essential Drug List to the districts. In the event that some drugs are not available, the problem usually lies at the district or facility level rather than with SAMES. DHMTs have already had training and systems development in commodities management, thus major difficulties with stock-outs of essential drugs are not commonly experienced. A variety of contraceptives in sufficient quantities are not available in all facilities. This appears to be related to an underestimation of the quantities needed as the family planning program is relatively new. UNFPA has assured the supply of these commodities and the MOH is adjusting the quantities ordered to meet the demand. HealthNet International along with the Global Fund program currently provides insecticide-treated bednets free of charge for all women attending antenatal care. UNICEF has funds available for the purchase of additional equipment and information about needs identified during the health facilities assessment has been presented to them.

Reliable and adequate supplies of essential drugs will be assured through regular supportive supervision visits of the MCH DPO to health facilities in the districts. A checklist for supplies/medications/equipment based on national standards is currently being drafted and will be included in the pilot supervision too described earlier.

*Supply Constraints.* While the HAI program does not have "supply" activities per se, efforts to increase the uptake of government health services will be somewhat dependent on the quality of those services. This includes adequate supplies of the drugs and equipment listed above at each health facility. Constraints could include drug shortages resulting from an underestimation of the needs, poor drug stock management, or lack of timely communication regarding needs. The program will work closely with the MCH DPO and other pertinent members of the DHMT to assure that attention is given to maintaining adequate drugs and supplies in all facilities. A part of the MCH DPO training will be to equip them to regularly monitor drugs and supplies that are needed for maternal and newborn care. They will be responsible for identifying facilities with ongoing difficulties in this area so as to provide additional supervision, support and training.

*Sustainability of Supply.* When the need for additional essential supplies or equipment is identified, discussions with the MOH will be held to obtain consensus on the need for the additional material, and to identify a source for obtaining it and for training in its use. New items will only be introduced on a pilot basis or if approved for general use by the MOH, therefore assuring the sustainability of that effort.

*Monitoring of Supplies and Safety.* Monitoring of the adequacy of the supply system will be a part of routine supervision visits. Similarly, safety issues will be addressed at those times, particularly if appropriate systems to safeguard staff and patients are not in place or are not functioning. Constant monitoring of adherence to norms and protocols will eventually allow those approaches to become standard practice

*Training and Supervision.* Training of volunteers from communities throughout the districts will improve the access of the community to health education messages. Community meetings will provide links between health facility staff and the volunteers. The health staff

will provide supervision and support to community health volunteers while the volunteers can provide pertinent information to health facility staff about specific health issues within their community. This information will be used by health staff to guide the services offered during mobile clinics, thereby increasing the possibility of remote communities accessing appropriate services.

The DHMT staff (particularly the MCH DPO and the Health Promotion DPO) will provide support and supervision to the staff at the facility level. HAI will work with the MOH staff from the Health Promotion and MCH departments to evaluate the overall effectiveness of the use of community health workers in improving community access to information and services. At the present time an integrated supervision tool for MCH is being developed in conjunction with a review of national midwifery standards. The process is being led by the MCH department, with support from HAI, UNFPA, WHO, and the national training office of NCHET. Though this process is in its early stages, a preliminary pilot tool will be available by July 2005. The DPOs have received some training on supervision at their initial training workshop. HAI will support and supervise the DPOs in our program districts, and AISMI will do the same when their district staff are in place. It is not yet clear if anyone besides the MCH department will be available to perform this important function in the remaining districts.

*Sustainability of improved access.* The deployment of volunteers from the community to provide health education and support at the household level is a recent strategy of the MOH Health Promotion department, with plans to start implementation in 2005. A workshop involving MOH, UN agencies, private health providers and NGOs to develop the implementation plan for this activity is scheduled for May. HAI will play a key role in leading the development of content of the plan relevant to MNC at this meeting. Ensuring that all planning regarding volunteers is consistent with the MOH strategy is the best way to ensure sustainability of efforts at community level. HAI and UNICEF are two of the key partners who will assist in the implementation of this strategy in three shared districts. It is anticipated that lessons learned in these early efforts as well as lessons learned from other NGOs already utilizing community volunteer systems in Timor-Leste (e.g. Oxfam, CCF, CARE and SHARE) will guide the MOH and partners as they seek to scale up these activities.

### **3. Program Monitoring and Evaluation Plan**

#### **a. Current information system**

The MOH health management information system (HMIS) has been recently revised with assistance from an external consultant. The new system tracks clinic-based data for all major communicable diseases as well as routine maternal and child care services, including antenatal visits, deliveries by MOH staff, and postpartum and newborn care services. The system is much more comprehensive than the current system (outlined in section E.1.e of this report). MOH staff will shortly be trained in the new system. Reporting will be computerized at DHMT level. The DHMT, including the new MCH DPO will be responsible for entering district level data and forwarding monthly reports to the MOH. This program will monitor use of this new HMIS system in the four program districts through regular discussion with the MCH DPO. Problems encountered will be shared with the MOH, recommending additions or changes to the system if needed.

Community-based data (such as health events) currently are not routinely gathered by the MOH. Individual NGOs have varying systems for recording their own community based activities. As community health promotion activities are initiated, the program will follow trends in utilization of the nearest health facilities (antenatal care, delivery and postpartum care) as one common measure of effectiveness. In addition, at least two community-based

studies that aim to assess community practices and concerns in all regions are planned for the near future (a second UNICEF MICS and a care-seeking study funded by multiple donors).

#### **b. Monitoring tools**

The main source of monitoring data for the program will be the newly revised MOH HMIS forms described above. Key information for the program that will be collected monthly and tabulated quarterly includes: ANC visits; tetanus immunizations for pregnant women; newborn BCG immunizations; births attended by midwives; postpartum care visits; newborn care visits; doses of vitamin A administered; numbers of antenatal and obstetric complications; numbers of referrals of emergency obstetric cases; numbers of maternal, perinatal and neonatal deaths; and numbers of low birth weight babies.

An integrated MCH supervision tool will be developed for routine use by the MCH DPO for health facility supervision. The tool will be developed together with MOH MCH staff and the DHMTs. Current supervision tools will be reviewed and incorporated as appropriate. In addition, the DPO will record their activities with community groups via a monthly reporting form. This will include a standard checklist for activities conducted, personnel involved, and the content of meetings and activities. MOH MCH department and HAI program staff will jointly supervise the DPOs with a standard set of activities and observations.

As mentioned previously, the Health Promotion department of the MoH is planning on training a new cadre of community volunteers ("family health promoters"). HAI will work closely with the Health Promotion department as well as other collaborators such as BASICS3 and UNICEF in the development of guidelines and training materials for these volunteers, as well as monitoring tools that will be used to assess their effectiveness.

#### **c. Data collection**

The primary data collection for the program is necessarily done by the MOH staff. Data sources are clinic records as well as reports of subdistrict health center and health post visits by DPOs. The DPOs will be trained to use these visits as an opportunity to do cross-checking and verification of the quality of the data collected. In addition, training for the CHC managers in management skills is being planned by WHO. One of the aspects to be covered will include how to ensure the quality of data that are collected. All women of childbearing age and newborn infants are the beneficiaries of the program, and their numbers are known because of a very recent detailed national household census. DPOs and program staff will also maintain estimates of the numbers of community members reached by community-level health promotion sessions.

The final evaluation will include a knowledge, practices and coverage survey to measure attainment of objectives in comparison with the baseline measures. Because baseline quantitative data are based on information from a DHS community survey, the final survey will as far as possible use the same sampling procedures as those used for the DHS. The sample will include both lowlands and highlands populations and will be stratified by urban and rural residence. The three-stage cluster sampling procedure that will be replicated is well described in the DHS reports. Sample sizes will be calculated at the time of the survey. The end of project survey will as far as possible collect data related to the key indicators of the MOH and also of USAID's results framework.

A number of important indicators of maternal and newborn care will be tracked and reported even though they are not under the direct control of the program. For example, maternal malaria is an important problem in Timor-Leste, and bednet use is an important control strategy that will be assessed in the end-of-project survey. HealthNet International

is currently completing a study that will determine the extent and nature of the problem of maternal malaria by means of a comprehensive survey of pregnant women. HAI will follow the results of this survey with great interest to determine what additional measures need to be taken to reduce the burden of maternal malaria, and perhaps also malaria in newborns.

**d. Analysis and use of data.**

HAI program staff will submit monthly reports of activities to the country program manager, MOH counterparts, and HAI headquarters. Training records will track information about each midwife or nurse trained, including documentation of skills acquisition by the end of training and reports of follow-up visits. District program Health Officers (DPOs) will have a simple reporting form to document supervision visits, community meetings held, persons trained or provided with information, classes taught, materials distributed, etc. The DPO reporting will include a facilities monitoring tool to track the status of supplies, equipment, and medicines at all health units in the program districts to assure that needed commodities are available when and where needed. The Health Promotion Coordinator or the MCH technical advisor will follow up reports of stockouts or shortages of essential supplies or equipment during supervision visits with the DPOs.

Currently, at the district level, there is a lack of understanding of the relevance and minimal use of data collected to formulate effective workplans. A key part of the formal as well as on the job training to be provided for the DPOs and other members of the DHMT includes building their capacity to analyze the data collected and to use this information to develop their quarterly and annual workplans. They will also be encouraged to find ways to share relevant data and information at the community level in such a way so as to enhance the understanding of the community on how they can contribute to improving the health of women and children.

As a part of initial discussions in the communities, the official leadership structures will be enlisted to notify the health services of any maternal or perinatal death that occurs in their area. The DPO for that district will be trained to conduct a verbal autopsy of both the cause of death and the circumstances surrounding the use or non-use of health services as soon as possible following the notification. This information will be used both internally as a case study for discussion with district staff and also reported to the MOH's MCH Working Group. Data from the death audit will also be used to provide communities with concrete examples (without providing names or personal identifying information) about the dangers of childbearing, giving them an opportunity to discuss solutions to those problems, and at least in some cases to recognize the benefits of maternal and newborn services to help prevent unnecessary deaths. Community groups will also be informed of positive trends in care-seeking and other health behaviors that take place in their service areas.

Pilot efforts to improve services are undertaken only if they are relevant for national policy; the evaluation of the results of the operations research activities will include a formal report and presentation to the MOH. Informal communication will also be important to help ensure that program results are used in the development of sound, evidence-based policy recommendations. Because of the importance of application of the results of operations research projects, such activities will only be undertaken with the full support and approval of the MOH, implying a commitment to include the results in the policy development process.

**e. Monitoring performance and coverage**

Quarterly work plans will set targets for activities to be completed, and quarterly reports will document progress against these plans. Annual reports will summarize both major

activities and the achievement of targets set for the year. In the recently developed district health plans, each district has its own targets related to maternal care services. The program will work with each district team in monitoring their progress towards meeting their own objectives. Quarterly feedback to field staff and DHMTs about overall program performance will be provided in a graphic format so that each district can judge its effectiveness against the overall program (e.g., the estimated proportion of pregnant women in the district who come for antenatal care).

Monitoring coverage of services to the most rural and inaccessible households will be an important aspect of assuring the effectiveness of program approaches for the entire population. One way of addressing this concern will be to pilot modified strategies for specific services in remote areas, for example making use of community health volunteers or *dukuns* for initial post-natal screening visits. Where this is done an important element of the implementation will be to monitor the coverage and use of these services (such as the proportion of remote households having a postpartum visit). For the final survey, coverage in the more remote areas will be examined separately.

#### **f. Assuring quality**

The program's baseline assessments focused heavily on the quality of health services, and provided strong evidence of the need for quality improvement. The participatory approach to working at the district level was met with enthusiasm by those involved; it appeared that genuine consultation with communities in matters of health has not been done to this extent in the past. We thus plan to continue to consult regularly with communities and involve them in efforts to improve and monitor the quality of services by health staff. The program also expects to continue to work with the well-established system of community leaders (*liurais* and *suco-chefs*) to assist communities to influence the quality of health services.

As mentioned above, the main aim of supervision visits by the DPOs for MOH midwives will be to assure or improve quality of their services. Planning and preparation for these visits will include evaluation of recent written reports as well as the report of the previous supervision visit. Supervisory visits will be used as an opportunity to provide health workers with additional training and support in identified areas of weaknesses as well as positive feedback in areas of strength. The DPOs will be involved as trainers during midwife trainings, so they will be very familiar with the standards of quality that have been set for MCH services. Wall charts with key elements of the essential services will be posted for easy reference during care. Using the checklists described above, the DPOs will provide regular supervision of the midwives in their districts, using the checklists described above. Similarly, the work of the DPOs will be supervised by the MOH MCH Department and HAI program staff. Periodic joint supervision will be conducted by the MOH or HAI with the MCH DPOs.

#### **g. Quality improvement tools**

Tools for quality improvement will be developed initially for training of DPOs but will be reviewed and revised as the program progresses. The main new approach to quality improvement of maternal care will be the maternal death audit; the tool for that audit will be adapted from the WHO suggested documentation.

#### **h. Monitoring and evaluation skills of local staff and partners**

Improving the monitoring capacity of the DPOs will be a major focus of their training, as previously described. A key focus of the DPO efforts, however, also will be encouraging the district-based midwives to take on a population-focused approach to their work, such as by estimating the number of pregnancies expected in their area and charting their progress

towards achieving full attendance at antenatal clinics. Assisting them to evaluate the success of their own efforts at community outreach will be an important goal of the DPO supervision of the midwives. Implementation of the new national data management system should provide valuable information to inform this effort. Local staff and partners also will be involved in the midterm and final evaluations at all stages, providing a valuable learning opportunity in evaluation approaches.

#### **i. Operations research ideas**

The operations research priorities for Timor-Leste will be heavily influenced by the deliberations of the MCH working group. At the present time three areas of likely OR activities are: 1) developing birth-friendly facilities in a target area, making existing facilities (including perhaps maternal waiting homes) more culturally relevant and evaluating the effects of that effort on the rates of institutional deliveries; 2) promoting the role of the midwives in conducting home deliveries and piloting various incentives to facilitate that practice (standard home birth kits and procedures, compensatory time off when possible, etc.); and 3) a pilot effort to promote the time of the *fase matan* ceremony as an opportunity for a midwife to undertake a postpartum check and maternal/newborn care as necessary. In addition, in the more remote areas a potential pilot effort is the use of community health volunteers or possibly *dukuns* to conduct an initial postpartum/newborn a maternal death audit, which will later be expanded to include a peri/neonatal death audit, will be carefully monitored to assess its usefulness as a national tool to both monitor and reduce maternal and newborn mortality.

#### **4. Management plan**

There have been no substantive changes in the management and staffing plan since the proposal. See Annex 4 for a listing of all key persons who will be involved in the program. Nadine Hoekman is the program manager, as proposed. The job title for one key staff member in the field office was changed from Training Advisor to MCH Technical Advisor when it became clear that there was ample training expertise among both Timorese and international advisors, but technical expertise particularly in postpartum and newborn care was needed. Dr. Ingrid Bucens, the program's Technical Advisor, is a neonatologist with MPH training and over two years work experience in Timor-Leste. Dr. Bucens speaks Tetum and was involved in the original development of the Timor-Leste proposal. See Appendix 4 for the table of program personnel and CV of Dr. Bucens.

The main HQ technical backstop is the HAI Deputy Director, Mary Anne Mercer, assisted by Susan Thompson, who also supports HAI's community health promotion project in Venilale. Headquarters staff provide direct support to field staff by means of field visits 2-3 times yearly; regular telephone and email contacts; review of program reports; coordination with US-based staff of partner organizations, particularly BASICS3 project; sending technical materials and documents; and assistance with the selection, orientation, and supervision of consultants, student, student volunteers, and other resource persons.

At the field level, the program is directed by the CS Program Manager, Nadine Hoekman, who also serves as HAI country coordinator in Timor-Leste. This program manager reports directly to the Deputy Director at headquarters and works in close collaboration with the MCH Head of the MOH, who has overall responsibility for maternal and child health programming. The technical approaches of the project are coordinated by the MCH Technical Advisor, Ingrid Bucens, working as a counterpart to the MOH's MCH Program Officer. Community health activities are coordinated by the Health Promotion Coordinator, Dr. Teda Littik, whose MOH counterpart is the national Health Promotion Head. She is responsible for overseeing the health promotion activities of the DPOs.

Each of the program districts is staffed with a newly appointed MCH District Program Officer (DPO) who works with the DHMTs to coordinate all district level MCH activities. Two HAI program assistants provide ongoing support to the DPOs, other staff who support the program at the Dili office are an administrator/office manager, an accounting assistant, and various support staff. All program staff report to the CS program manager; support staff report to the administrator/office manager, who in turn reports to the program manager.

The DPO will be a key collaborator with other programs, such as UNICEF and AISMI, as they roll out their programs at the district level, and those groups will also take part in supportive supervision of the DPOs. Currently HAI provides supervision and salary support for the DPOs in our program districts as a temporary measure. However when the project ends the MOH is committed to covering their salaries directly, and is already doing so in the remaining 9 districts of the country. The modest per diem and transport costs are currently covered by HAI in the program districts, and by the MOH (or sometimes other agencies) in the remaining districts.

Program staff plan activities jointly with their respective MOH counterparts. Program reports are submitted to the MOH, as well as to HAI headquarters, as follows: monthly activity reports including training carried out; quarterly progress reports covering progress towards benchmarks; annual reports of program accomplishments; reports of each operations research activity; a midterm evaluation; and a final evaluation and lessons learned report. The MOH is currently rehabilitating a mostly destroyed building, where HAI will be housed along with the MCH unit of the MOH, Dili District health staff, and the staff of AISMI project, greatly facilitating communication and collaboration among these key partner groups.

Management of the HAI program includes a phase-out strategy for HAI support. Following the midterm evaluation, lessons learned from the first four districts will be applied in redesigning the program approach to the expansion districts. For the final two years of the program, HAI's direct support of the startup districts will diminish, based on the ability of district staff to continue to implement and monitor program activities. By the conclusion of the project the startup districts should be functioning independently with only a standard level of technical support from the MCH department at the central level. The MOH has stated its support for implementing improved MCH care in all 13 districts, so if the program's efforts are found to be effective, HAI will seek additional funding to expand to the remaining 6 districts.

Another factor in phase-out strategizing is the potential for cross-collaboration in program districts between HAI and AISMI. Discussions have been held regarding the possibility of each program providing training in their respective intervention areas to the DPOs and midwives of the districts covered by the others' program, with followup and supervision to be conducted by the 'index' program for that district. Scale-up of both programs' approaches to larger would be more rapidly accomplished if this were possible.

**Organizational chart.** Annex 5 outlines the program's organizational structure and relationships, including HQ staff and relationships with field program staff and key MOH partners. The chart shows both direct reporting (straight lines) and collaborative relationships (dotted lines). All positions are currently filled.

## 5. Work Plan

The detailed work plan below gives the year (Y) and quarter (Q) during which each activity will begin, and uses the following abbreviations for personnel responsible for each set of activities:

PM – CS Program Manager (HAI)

CSTA – Maternal Child Health/Child Survival Technical Advisor (HAI)

HPC – Health Promotion Coordinator (HAI)

PA – Program Assistant (HAI)

DPO – District Program Officer (MOH)

MCH – MCH department staff (MOH)

HPS – Health Promotion staff (MOH)

NCHET – Training unit staff (MOH)

### Intervention: Maternal and Newborn Care (100%)

#### Health System Objectives:

<b>Objective/Target #1: 90% of MOH health facilities in the program districts will have at least one staff member skilled in providing comprehensive antenatal care (specifically including counseling and communication skills)</b>		
<b>Indicators:</b>		
<ul style="list-style-type: none"> <li># of MOH staff trained</li> <li>% of program district MOH health facilities with at least one staff member who demonstrates acceptable skill levels in providing comprehensive antenatal care</li> </ul>		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>Training reports</li> </ul>		
<b>Major Activities:</b>	<b>Quarter</b>	<b>Responsible</b>
<ul style="list-style-type: none"> <li>Select and train DPOs</li> </ul>	Y1 Q2	PM, CSTA
<ul style="list-style-type: none"> <li>Training needs assessment of MOH midwives</li> </ul>	Y1 Q2	PM, CSTA
<ul style="list-style-type: none"> <li>Develop training for midwives in antenatal care focusing on communication and counseling skills</li> </ul>	Y1 Q4	PM, CSTA, MCH
<ul style="list-style-type: none"> <li>Develop wall charts (training and clinical aids) for antenatal care consults</li> </ul>	Y1Q4	PM, CSTA, MCH
<ul style="list-style-type: none"> <li>Conduct/evaluate training to all midwives on antenatal care/ communication/counseling – STARTUP DISTRICTS</li> </ul>	Y2 Q1	PM, NCHET
<ul style="list-style-type: none"> <li>Conduct and evaluate training of all midwives on antenatal care / communication/counseling – EXPANSION DISTRICTS</li> </ul>	Y3 Q3	PM, NCHET
<b>Objective/Target #2: 90% of MOH health facilities in the program districts will have at least one staff member skilled in the key elements of essential postpartum/newborn care including resuscitation skills</b>		
<b>Indicators:</b>		
<ul style="list-style-type: none"> <li># MOH staff trained in program districts</li> <li>% of program district MOH health facilities with at least one staff member who demonstrates acceptable skill levels in the key elements of essential postpartum/newborn care including resuscitation skills</li> </ul>		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>Training reports</li> </ul>		
<b>Major activities:</b>	<b>Quarter</b>	<b>Responsibility</b>
<ul style="list-style-type: none"> <li>Participate in national MCH working group to set standards for postpartum and newborn care</li> </ul>	Y1 Q4	PM, CSTA

<ul style="list-style-type: none"> <li>• Development of skills-focused training for midwives including a manual outlining national standards for postpartum/newborn care</li> <li>• Conduct and evaluate skills-based training for postpartum and newborn care for all midwives — STARTUP DISTRICTS</li> <li>• Conduct and evaluate skills-based training in PP/NBC for all midwives – EXPANSION DISTRICTS</li> </ul>	Y2 Q1-2	PM, CSTA MCH, NCHET
	Y2 Q2-4	CSTA, MCH, NCHET
	Y3 Q3	PM, NCHET

<b>Objective/Target #3: 90% of MOH health facilities in the program districts will have effective systems to maintain essential supplies and materials for antenatal care.</b>		
<b>Indicator:</b> % of program district MOH health facilities that have 90% of the essential supplies and equipment for antenatal and safe delivery care 90% of the time.		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>• MCH DPO facility supervision tool</li> <li>• Initial/final program reports</li> </ul>		
<b>Major Activities:</b>	<b>Quarter</b>	<b>Responsible</b>
<ul style="list-style-type: none"> <li>• Conduct health facility assessment</li> <li>• Participate in national MCH working group to assist MOH to develop essential supplies and equipment list</li> <li>• Identify sources for funding of supplies / equipment not currently accounted for</li> <li>• Develop MCH DPO supervision tool for health facilities</li> </ul>	Y1 Q1	PM, CSTA
	Y1 Q4	PM, CSTA
	ongoing	
	Y1 Q4	PM, CSTA, MCH
	Y1 Q3	PM, CSTA, MCH

<b>Objective/Target #4: 90% of MOH health facilities in the program districts will have effective systems to maintain essential supplies and materials for postpartum/newborn care</b>		
<b>Indicators:</b> % of program district MOH health facilities that have 90% of the essential supplies and equipment for postnatal/newborn care 90% of the time.		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>• MCH DPO facility supervision tool</li> <li>• Initial /final program reports</li> </ul>		
<b>Major activities:</b>	<b>Quarter</b>	<b>Responsibility</b>
<ul style="list-style-type: none"> <li>• Conduct health facility assessment</li> <li>• Participate in national MCH working group to assist MOH to identify essential supplies and equipment</li> <li>• Develop MCH DPO supervision tool for health facilities</li> <li>• Identify sources for funding of supplies / equipment not currently accounted for.</li> </ul>	Y1 Q1	PM, CSTA
	Y1 Q4	PM, CSTA
	ongoing	
	Y1 Q4	PM, CSTA, MCH
	Y1 Q3	PM, CSTA, MCH

**Family and Community Objectives:**

<b>Objective/Target #5: Percent of women with children age 0-23 months who received one or more antenatal care visits during their last pregnancy in program districts will increase from an estimated 50% to 70%</b>		
<b>Indicator:</b> % of women with children age 0-23 months who received one or more antenatal care visits during their last pregnancy		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>• MOH health facility reports (quarterly reporting)</li> <li>• Baseline TS DHS 2003, final KPC survey</li> </ul>		
<b>Major Activities:</b>	<b>Quarter</b>	<b>Responsible</b>

<ul style="list-style-type: none"> <li>• Conduct qualitative investigation related to culturally-determined beliefs and practices re: pregnancy</li> <li>• Train community-based groups (including women's groups, NGOs, Peace Corps volunteers) in promoting ANC – STARTUP DISTRICTS</li> <li>• Train community-based groups (including women's groups, NGOs, Peace Corps volunteers) in promoting ANC – EXPANSION DISTRICTS</li> <li>• Disseminate print materials, develop drama and broadcast programs for community promotion of ANC</li> <li>• Develop community based systems for identification of pregnant women / notification to health facility staff</li> <li>• Increasing accessibility of antenatal care by working with DHMT and facility managers to overcome current obstacles (especially provision of antenatal care at mobile clinics)</li> </ul>	Y1 Q2	PM, CSTA
	Y1 Q4	HPC, VOL, PAS
	Y3 Q1	HPC, VOL, PAS
	Y1 Q4	HPC, PA, MCH, HPS
	Y2 Q2	HPC, PA, DPO
	Y1 Q4 ongoing	PM, CSTA, DPO

<b>Objective/Target #6: Percent of women with children age 0-23 months who received at least two tetanus toxoid injections during their last pregnancy in the program districts will increase from 48% to 70%</b>		
<b>Indicator:</b> % of women with children age 0-23 months who received at least two tetanus toxoid injections during their last pregnancy		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>• Baseline TL DHS 2003, final KPC survey</li> <li>• MOH health facility reports (monthly reporting)</li> </ul>		
<b>Major Activities:</b>	<b>Quarter</b>	<b>Responsible</b>
<ul style="list-style-type: none"> <li>• Conduct qualitative investigation related to culturally-determined beliefs and practices re: pregnancy</li> <li>• Training of community-based groups (including women's groups, NGOs, Peace Corps volunteers) on need for tetanus immunization as part of ANC – STARTUP DISTRICTS</li> <li>• Training of community-based groups (including women's groups, NGOs, Peace Corps volunteers) on need for tetanus immunization as part of ANC – EXPANSION DISTRICTS</li> <li>• Disseminate print materials for community promotion of safe delivery practices</li> <li>• Develop drama and broadcast programs that includes community promotion of tetanus toxoid immunization</li> </ul>	Y1 Q2	PM, CSTA
	Y1 Q4	HPC, VOL, Pas
	Y3 Q1	HPC, VOL, PAS
	Y1 Q4	HPC, PA, MCH, HPS
	Y2 Q1	PM, CSTA, HPC, PA, MCH, HPS

<b>Objective/Target # 7: Percent of women with children age 0-23 months whose last delivery was assisted by a skilled birth attendant in program districts will increase from 16% to 30%</b>		
<b>Indicator:</b> % of women with children age 0-23 months whose last delivery was assisted by a skilled birth attendant		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>• MOH health facility reports (quarterly reporting)</li> <li>• Baseline TL DHS 2003, final KPC survey</li> </ul>		
<b>Major Activities:</b>	<b>Quarter</b>	<b>Responsible</b>
<ul style="list-style-type: none"> <li>• Conduct qualitative investigation related to culturally-determined beliefs and practices re: birth</li> </ul>	Y1 Q2	PM, CSTA

<ul style="list-style-type: none"> <li>• Train community-based groups (including women's groups, NGOs, Peace Corps volunteers) in safe birth promotion –STARTUP DISTRICTS</li> </ul>	Y1 Q4	HPC, VOL, PAS
<ul style="list-style-type: none"> <li>• Train community-based groups (including women's groups, NGOs, Peace Corps volunteers) in safe birth promotion –EXPANSION DISTRICTS</li> </ul>	Y3 Q1	HPC, VOL, PAS
<ul style="list-style-type: none"> <li>• Disseminate print materials for community promotion of safe delivery practices</li> </ul>	Y1 Q4	HPC, PA, MCH, HPS
<ul style="list-style-type: none"> <li>• Develop drama and broadcast programs for community promotion of safe delivery practices</li> </ul>	Y2 Q1	PM, CSTA, HPC, PA, MCH, HPS
<ul style="list-style-type: none"> <li>• OR activities to test strategies to increase access to trained birth attendants (birth-friendly health facilities, waiting homes)</li> </ul>	Y2 Q1	PM, CSTA, HPC, DPO, MCH
<ul style="list-style-type: none"> <li>• Meetings with community leaders to promote and develop birth plans and emergency transport plans</li> </ul>	Y2 Q1	HPC, Pas, DPO
<ul style="list-style-type: none"> <li>• Active participation in MCH working group</li> </ul>	Y1 Q3	PM, CSTA

**Objective/Target #8: Percent of women with children age 0-23 months who received a vitamin A dose in the first two months after their last delivery will increase from 28% to 60%**

**Indicators:** % of women with children age 0-23 months who received a Vitamin A dose in the first two months after their last delivery

**Measurement Methods:**

- Baseline TL DHS 2003 final KPC survey
- MOH health facility reports (monthly reporting)

**Major activities:**

	Quarter	Responsibility
<ul style="list-style-type: none"> <li>• Training of midwives in program districts in integrated postpartum care, including vitamin A supplementation</li> </ul>	Y2 Q2-4	CSTA, MCH, NCHET
<ul style="list-style-type: none"> <li>• Community education on value for mother and newborn of postpartum visit, including Vitamin A supplementation – START UP DISTRICTS</li> </ul>	Y1 Q4	HPC, VOL, Pas
<ul style="list-style-type: none"> <li>• Community education on value for mother and newborn of postpartum visit, including Vitamin A supplementation – EXPANSION DISTRICTS</li> </ul>	Y3 Q1	HPC, VOL, PAS
<ul style="list-style-type: none"> <li>• Disseminate print materials for community promotion of vitamin A as a component of integrated postpartum care</li> </ul>	Y1 Q4	HPC, PA, MCH, HPS
<ul style="list-style-type: none"> <li>• OR to improve postpartum care coverage (e.g. buddy system for accompany mother to HF, promote <i>fase matan</i> ceremony as opportunity for PPC, train CHW to assist home based delivery of PPC)</li> </ul>	Y2 Q2	PM, CSTA, HPC, MCH
<ul style="list-style-type: none"> <li>• Increasing accessibility of postpartum care by working with DHMT and facility managers to overcome current obstacles (eg trial home visits)</li> </ul>	Y1 Q4 ongoing	PM, CSTA, DPO
<ul style="list-style-type: none"> <li>• Actively participate in MCH working group to lead policy development for national standards of, and for increasing coverage of, comprehensive integrated postpartum care (including vitamin A for postpartum mothers and hepatitis B vaccination for newborns)</li> </ul>	Y1 Q3 and ongoing	PM, CSTA

**Objective/Target #9: Percent of infants aged 0-5 months who are exclusively breastfed will increase from 29% to 45%**

<b>Indicators:</b> % of infants aged 0-6 months who are exclusively breastfed in program districts		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>Baseline TL DHS 2003, final KPC survey</li> </ul>		
<b>Major activities:</b>	<b>Quarter</b>	<b>Responsibility</b>
<ul style="list-style-type: none"> <li>Work with existing community-based groups trained in breastfeeding promotion to expand coverage of activities</li> </ul>	Y2 Q1	HPC, Pas, DPO
<ul style="list-style-type: none"> <li>Dissemination of IEC materials for breastfeeding promotion</li> </ul>	Y2 Q1	HPC, Pas, DPO
<ul style="list-style-type: none"> <li>See activities for objective #10</li> </ul>	As for obj. #10	As for objective #10

<b>Objective/Target #10: 50% of mothers of children under one year in the program districts will know at least 3 signs of serious newborn illness</b>		
<b>Indicator:</b> % of mothers of children under one year in program districts who can list at least 3 signs of serious newborn illness		
<b>Measurement Methods:</b>		
<ul style="list-style-type: none"> <li>Final KPC survey</li> </ul>		
<b>Major activities:</b>	<b>Quarter</b>	<b>Responsibility</b>
<ul style="list-style-type: none"> <li>Conduct qualitative investigation related to culturally-determined beliefs and practices re: postpartum/newborn care including breastfeeding</li> </ul>	Y1 Q2	PM, CSTA
<ul style="list-style-type: none"> <li>Together with MCH working group develop a standard set of "danger signs" for newborn illness for use in health education in Timor-Leste</li> </ul>	Y1 Q4	PM, CSTA
<ul style="list-style-type: none"> <li>Develop and disseminate written IEC materials for community-based promotion of newborn care including breastfeeding promotion</li> </ul>	Y1 Q4	HPC, Pas, MCH, HPS
<ul style="list-style-type: none"> <li>Conduct skills-based training for postpartum and newborn care for all midwives in focus districts</li> </ul>	Y2 Q2-4	CSTA, MCH, NCHET
<ul style="list-style-type: none"> <li>Training of community-based groups (including women's groups, NGOs, Peace Corps volunteers) about newborn care and signs of illness – START UP DISTRICTS</li> </ul>	Y1 Q4	HPC, VOL, Pas
<ul style="list-style-type: none"> <li>Training of community-based groups (including women's groups, NGOs, Peace Corps volunteers) about newborn care and signs of illness – EXPANSION DISTRICTS</li> </ul>	Y3 Q1	HPC, VOL, Pas

## **ANNEX 1: Response to Application Debriefing**

For the sections on budget information, executive summary, and description of the PVO applicant, no weaknesses were noted.

### Situation analysis:

Input from HAI's ongoing community health promotion project in Venilale subdistrict was the primary source of community input into this proposal. Extensive visits and discussions with community groups and members in the course of developing and monitoring that project has provided extremely useful insights into the needs of pregnant women and their infants, and barriers to meeting those needs. The Venilale project works with staff of health services provided by a Catholic community and also the local MOH health staff, providing a range of inputs from the provider perspective as well.

The seven districts of the central region were selected with the advice and approval of MOH staff. The four startup districts are relatively accessible to the capital but represent the full range of geographic and other challenges to improving health services; the two expansion districts are somewhat less accessible. Our work in these districts involves both proven, broad-based efforts (training and supervision of health staff, coordinating community education efforts with existing groups) and pilot efforts for new approaches (culturally-relevant promotion of postpartum and newborn care, birth-friendly health facilities). The lessons learned from both types of activities in these districts will be useful both for expansion during the second half of the project and also will assist the MOH in scale-up efforts to the entire country. Dili district will be phased in during the second half of the project with activities that are relevant for an urban population, such as midwife training in postpartum/newborn care and various media-based approaches to health education.

### Program strategy and interventions:

Expanding the role of the MOH midwives to include active links with the community is one of the greatest challenges of this program. To the extent that it can be accomplished, we believe that it will have a positive effect on the clinical care they provide as well. Timorese midwives were trained and worked under a system in which they were not rewarded for community work, innovative efforts, or high performance standards. They were trained only minimally in education, information, and communication skills, and this will be a major focus of their initial training.

The Minister of Health is willing to support any reasonable efforts to improve the quality of care midwives provide, and stresses the importance of community outreach in their roles. He has already taken a major step in this direction when, at the urging of HAI, he developed the position of MCH Program officer for the district health management teams in October 2004. The new MCH district program officer will be responsible for working with MOH midwives to develop and carry out community activities in their district. HAI will work closely with these new district staff members to support their role in

community outreach and education. We anticipate that the combination of both training and ongoing supervision and support will help them to gradually take on a more community-focused and relevant role in their catchment areas.

Many Timorese health staff have now been trained in IMCI, and monitoring visits indicate that it has strengthened the clinical activities of nurses and midwives. Because there are efforts underway internationally to develop IMCI protocols for the newborn period, we are currently considering the benefits of that approach for the newborn care training. The advantage of using more standard approaches is that the WHO maternal care manual has already been adapted for East Timor and translated into Bahasa Indonesia. We will work with MOH staff and other experts, including the newborn care advisor for BASICS3 project, in making that decision.

The antenatal care training will focus primarily on issues of communication with pregnant women, such as teaching danger signs of pregnancy, the need for birth planning, and the need for a skilled birth attendant. Part of the communication will include a discussion of delivery options, which will vary substantially in different sites. In areas where clinic delivery is accessible, we will promote more 'birth-friendly' facilities, taking into account the culturally important elements of a 'normal' birth. Maternal waiting homes are being piloted in some areas where travel is more difficult and we will be involved in determining the best uses of those facilities where they are planned in our program districts. In other settings, calling the midwife to the home for the delivery, sometimes in partnership with a traditional birth attendant, may be feasible (and is done occasionally at present). HAI's experience in Mozambique has shown that where women are familiar with a skilled birth attendant and a welcoming facility, they will choose to deliver under those safer conditions even in preference to delivery with a trained TBA.

The MOH has adopted the standards and approaches of WHO's 'safe and clean' delivery and also their emergency obstetric care training and standards. Because of the severe shortage of physicians in the country the Ministry fully accepts the central role of the midwife in assuring safe deliveries. Planning is also under way to assure that there will be five fully-equipped and staffed referral facilities with the capacity for cesarean section in the country.

Peace Corps volunteers are currently placed at the district level in all four of our startup districts, and have proven extremely supportive in the district planning activities. We will be discussing with PC staff how to assure that this successful partnership is continued as new volunteers arrive and are placed.

The reality of East Timor is that because of the continued dispersion of families onto their more remote ancestral lands, access to health facilities at the time of delivery will be very unlikely for some women. We will discuss with the MOH the introduction of training in home-based lifesaving skills in some of these more remote program areas. We hope, at a minimum, to educate women in remote communities on signs of complications and also to promote safer birth activities such as the 'three cleans' and immediate breastfeeding after delivery. Clean birth kits are also available in the country, but the

MOH has not yet determined how to distribute or promote them in a way that is consistent with the promotion of skilled birth attendants.

Newborn care for facility-based midwives will include resuscitation with a simple suction apparatus and newborn-size bag and mask. The suction devices have been tested in Indonesia and found appropriate for use by trained birth attendants with only a few hours training. The suction devices have already been provided to health units but midwives have not yet been trained in their use.

Breastfeeding promotion will be designed with the assistance of materials and training curricula already designed and produced by Alola Foundation. This is the one area of newborn care in which midwives are already trained and familiar, so efforts will stress assuring that community promotion of immediate and exclusive breastfeeding are consistent with the health communication messages of the midwives. Other NGOs working in the program districts, some of which already provide breastfeeding promotion, will be encouraged to include the same key messages in their community education efforts.

No weaknesses were noted for the monitoring and evaluation plan.

#### Management plan

The organizational structure for the program was based on the existing MOH model for support of other health sector activities, such as control of communicable diseases and nutrition promotion. The district health management team continues to undergo training on how best to manage and oversee the health activities, both clinical and community-based, in their district. With the addition of the MCH district program health officer, clinical and community MCH efforts will be added to the list of priority areas for specific DHMT support (previously MCH responsibilities were divided among the other members of the team). Active collaboration among team members will mean that the MCH DPO will not be solely responsible for the district activities; for example, the nutrition DPO will work with the MCH DHPO to assure maternal nutrition and breastfeeding promotion.

The management plan for the expansion of the program may be modified by the third year of the program. A major change since the writing of the proposal is the entry of the BASICS3 and Immunization BASICS into East Timor, supported by the USAID office in Dili. Permanent BASICS3 staff are not yet on the ground in East Timor, but activities in support of malaria and dengue control have begun and work plans for the first two years are nearing completion. BASICS, which will have a management structure similar to HAI's, will be a major partner as scale-up to new districts begins. Ongoing discussions between staff of HAI Seattle and BASICS3 in Washington DC are under way to determine the best approaches to assuring timely scale-up of the most effective activities of both programs to the entire country.

## Annex 2A: Summary Quantitative Baseline Data

The source for the quantitative baseline assessment data for program indicators is the Timor Leste Demographic Health Survey (TL DHS) 2003. The data presented are for the age group 0-23 months and for the four startup program districts, plus the average for all four districts and for Timor Leste overall.

Table 1: Percent women of children age 0-23 months who report receiving antenatal care (ANC) from a skilled provider during last pregnancy.

<b>Aileu</b>	<b>Ermera</b>	<b>Liquica</b>	<b>Manatuto</b>	<b>All 4 Districts</b>	<b>Timor Leste</b>
<b>n=82</b>	<b>n=188</b>	<b>n=89</b>	<b>n=103</b>	<b>n=460</b>	<b>n=2423</b>
41.5	49.5	48.3	59.2	50.0	51.1

Data Source: TL DHS 2003

Table 2: Percent mothers with children 0-23 months who received at least 2 tetanus toxoid injections before birth.

<b>Aileu</b>	<b>Ermera</b>	<b>Liquica</b>	<b>Manatuto</b>	<b>All 4 Districts</b>	<b>Timor Leste</b>
<b>n=71</b>	<b>n=156</b>	<b>n=80</b>	<b>n=92</b>	<b>n=399</b>	<b>n=2147</b>
62.0	34.0	50.0	60.9	48.8	53.1

Data Source: TL DHS 2003

Table 3: Place of most recent delivery of child (0-23 months).

<b>Place of Delivery</b>	<b>Aileu (%)</b> <b>n=82</b>	<b>Ermera (%)</b> <b>n=188</b>	<b>Liquica (%)</b> <b>n=89</b>	<b>Manatuto (%)</b> <b>n=103</b>	<b>All 4 Districts (%)</b> <b>n=462</b>	<b>Timor Leste (%)</b> <b>n=2415</b>
<b>Respondent's home</b>	96.3	96.3	98.9	85.4	94.6	89.1
<b>Other home</b>	0	1.1	1.1	0	0.6	0.4
<b>Public hospital</b>	3.7	2.1	0	10.7	3.9	8.4
<b>Public health center</b>	0	0.5	0	1.0	0.4	0.9
<b>Private hospital</b>	0	0	0	2.9	0.6	0.2
<b>Private clinic</b>	0	0	0	0	0	0.8
<b>Other</b>	0	0	0	0	0	0.1

Data Source: TL DHS 2003

Table 4: Percent children 0-23 months whose births were attended by a skilled provider.

<b>Aileu</b>	<b>Ermera</b>	<b>Liquica</b>	<b>Manatuto</b>	<b>All 4 Districts</b>	<b>Timor Leste</b>
<b>n=76</b>	<b>n=187</b>	<b>n=84</b>	<b>n=101</b>	<b>n=448</b>	<b>n=2383</b>
6.6	20.3	9.5	18.8	15.6	19.9

Data Source: TL DHS 2003

Table 5: Percent women who report having a postpartum check following delivery.

<b>Aileu</b>	<b>Ermera</b>	<b>Liquica</b>	<b>Manatuto</b>	<b>All 4 Districts</b>	<b>Timor Leste</b>
<b>n=82</b>	<b>n=188</b>	<b>n=87</b>	<b>n=102</b>	<b>n=459</b>	<b>n=2395</b>
4.9	3.8	24.1	25.5	12.7	19.9

Data Source: TL DHS 2003

## Annex 2A: Summary Quantitative Baseline Data

Table 6: Percent mothers with children 0-23 months who report their newborn received a newborn check by a skilled medical provider\* within one week of birth.

<b>All 4 Districts** n=111</b>	<b>Timor Leste n=624</b>
5.4	12.0

Data Source: TL DHS 2003

\*Skilled medical provider defined as a doctor, midwife or nurse

\*\*District aggregate data only due to small sample size

Table 7: Percent children 0-5 months who were exclusively breastfed during last 24 hours.

<b>Aileu n=45</b>	<b>Ermera n=126</b>	<b>Liquica n=48</b>	<b>Manatuto n=49</b>	<b>All 4 Districts n=268</b>	<b>Timor Leste n=1255</b>
28.9	36.5	12.5	24.5	28.7	21.2

Data Source: TL DHS 2003

Table 8: Percent mothers with children 0-23 months who know at least 2 signs of childhood illness that indicate the need for treatment (note: all childhood illness, not signs of newborn illness)

<b>Aileu</b>	<b>Ermera</b>	<b>Liquica</b>	<b>Manatuto</b>	<b>Central Region* n=433</b>	<b>Timor Leste n=2280</b>
NA	NA	NA	NA	60	60

Data Source: Multiple Indicator Cluster Survey (MICS) 2002

\*District specific data in MICS was unavailable. All program districts are in the central region, as reported in the MICS

**Part 2 of  
Baseline Assessment**

**for  
Health Alliance International  
*Strengthening Maternal and Newborn Care in Timor Leste***

**ASSESSMENT OF HEALTH SERVICES  
(HEALTH FACILITIES AND STAFF)  
RELEVANT TO MATERNAL AND NEWBORN CARE  
IN THE PROGRAM DISTRICTS –  
AILEU, ERMERA, LIQUISA AND MANATUTU**

**Compiled by Ingrid Bucens  
February, 2005**

## ANNEX 2B: Baseline Health Facility Assessment

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#### **Abbreviations**

ANC	Antenatal Care
CHC	Community Health Centre
DHMT	District Health Management Team
DPO	District Program Officer
EPI	Expanded Program Immunisation
HAI	Health Alliance International
HF	Health Facility
HFA	Health facility Assessment
HP	Health Post
IMCI	Integrated Management of Childhood Illness
MCH	Maternal and Child Health
MNC	Maternal and Newborn Care
MOH	Ministry of Health
MW	Midwife
PNC	Postnatal Care
PPC	Postpartum Care
STI	Sexually Transmitted Infections
WHO	World Health Organisation

### **Executive summary**

A health facility assessment (HFA) was conducted in the 4 HAI program districts (Aileu, Ermera, Liquisa and Manatutu), December 2004 – February 2005. The purpose was to gather information about health service delivery of maternal and newborn care (MNC) to facilitate program planning. The assessment was comprised of interviews and observations and employed tools adapted from the WHO Safe Motherhood Needs Assessment (1998 – reference 1). An assessment was conducted at a total of 32 health facilities (HF)—19 Community Health Centers (CHCs), 11 health posts (HPs) and 2 private health clinics. District Health Management Team (DHMT) heads completed a survey form; all 39 facility managers,<sup>1</sup> 46 midwives (MWs) and 4 nurses were interviewed. MWs were observed doing antenatal care (ANC) consults; exit interviews were conducted with 49 mothers; and ANC cards and a sample of partographs were reviewed.

Complementary assessments—focus group discussions with MWs and qualitative assessments in communities—are reported separately.

### **Key Findings**

This report is the first comprehensive assessment of maternal and newborn care services at health facilities in Timor Leste.

### ***Health facilities/services***

- A number of HFs are affected by fundamental logistic challenges that impede their ability to provide safe/clean delivery and emergency referral services—lack of access during rainy season, lack of water supply, lack of electricity, lack fuel for generator, lack of communication and inadequate ambulance access.
- Most HFs lack a private space for delivery. Most lack a place for neonatal care/resuscitation and basic equipment for newborn resuscitation.
- Family planning stocks are in extreme short supply.
- Very few deliveries are occurring at HFs.
- ANC is only provided at about 50% of mobile clinics (MC).
- There is no system for providing postnatal care (PNC) to mothers and babies (at HF or in community). PNC is almost never provided from MC.
- Neonates (babies less than 1 month of age) are rarely seen at HFs.
- The most commonly encountered obstetric complications are retained placenta, breech presentation, and incomplete miscarriage. The frequency of any single complication is still low—presumably reflecting low HF usage. 1 in every 3 facilities had encountered a stillbirth, a neonatal death, and a very preterm baby, within the last 6 months
- Outreach services are limited to MCs and the occasional PPC visit close to the HF. Group health education at the HF was not witnessed during the assessment.
- With the exception of IMCI materials, no MNH clinical guidelines are available in clinics. Health education materials for MNH are very limited. The current MCH book is not being used for health promotion.
- The MCH documentation system has recently changed. Documentation practice is not uniform, there is a lot of duplication, and errors are commonly being made. Minimal information is recorded about postpartum care. Partographs are in short supply and not in use.

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<sup>1</sup> In 2 facilities (Funar and Gleno the FM was not available to be interviewed; a MW was asked the facility manager questions in lieu of the manager).

## ANNEX 2B: Baseline Health Facility Assessment

- Supervision of HF and health staff is rare and not comprehensive.

### **Health Staff**

- Some HFs (health facilities) are not staffed by a MW (or MW resides elsewhere) yet nurses have not been trained in ANC, delivery or PNC<sup>2</sup>. In 2/3 of HFs nurses assist deliveries after hours.
- MW/nurses have not received any comprehensive training in neonatal resuscitation and care or integrated postpartum care.
- ANC consults usually include the fundamental “5T’s”; however, counselling and communication are generally performed very poorly.
- Over ½ the MWs deliver 3 or fewer babies a month; at least ¾ of these occur in women’s homes. Partographs are almost never being used.
- *Dukuns* are widely known by the MWs. Most MWs have at least some contact with the *dukuns*; 2/3 assist them with deliveries. (2/3 of what?)
- MWs lack any comprehensive system for PPC and they do not expect that mothers/their babies will come for PPC before 1 month postpartum.
- While most MWs know the 3 steps of essential newborn care—dry/warm wrap, cut cord and early breastfeeding—knowledge of basic newborn resuscitation is low. Apart from examining the cord and checking breastfeeding, knowledge of newborn care and of danger signs is poor.

### **Clientele**

- Of the 49 women interviewed, 17 had a child die (10 as neonates); only 3 delivered their last baby in a HF; about ½ delivered with a MW at home. Those who had PPC received it at a HF and after 1 month postpartum. Few women knew any danger signs to look for during pregnancy, birth, or the PP period.

### Key Recommendations

- Accessibility and quality of ANC needs to be improved. Nurses should be trained in ANC, and it should be provided at all MCs; MWs and nurses should be trained in communication/counselling skills focussing on ANC.
- Skilled birth attendance and the number of facility based births need to increase. Facilities should be made “birth friendly” and should be equipped with basic equipment for neonatal care. Facility births should be promoted, and communities should be involved in improving facilities and in assisting the transport of women to these facilities.
- Midwives and nurses should be trained in comprehensive PPC and in neonatal resuscitation. Standards and systems for PPC, both facility and home based, should be established. There should be promotion of PPC in communities.
- Opportunities for HP promote/provide MNC need to be expanded and maximised.
- Emergency referral systems need to be improved, both by addressing logistics at HFs and by involving communities in planning.
- There is a need to develop a cadre of community volunteers to facilitate MWs in delivering MNC; consideration should be given to training of TBAs.
- A comprehensive and integrated system of supervision by the MCH-DPO of the HF and health staff needs to be established, including elements of MNC.

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<sup>2</sup> nurses joining clinical nurse training will receive training in ANC

## **The Health Facility Assessment (HFA) Report**

### **Objectives and methods:**

The overarching goal of the HAI program is to support the MOH Timor Leste **to improve health and to reduce morbidity and mortality of mothers and their newborns**. There are 2 main strategic arms to the program – 1) health services improvement and 2) community based health promotion. The baseline HFA was conducted with the purpose of gathering accurate and current information to facilitate detailed planning for the health services improvement arm of the program.

#### *Specific objectives of HFA*

1. To assess availability of essential maternal and newborn care (MNC) resources at the health facilities
2. To assess the MNC training needs of MWs and nurses at the health facilities
3. To assess current knowledge and beliefs of the health facility-based MWs about MNC problems and
4. To describe the current system for collection, analysis, and use of health services data at the health facilities.

#### *Methods*

A HFA was conducted in each of the 4 program districts: Aileu, Ermera, Liquisa and Manatutu. The assessment was preceded by a preliminary meeting with the heads of the district health management teams (DHMT) and a district stakeholders meeting where the HAI program was introduced and the purpose of the HFA was discussed. The majority of health facility MWs attended the meeting and afterwards took part in a focus group discussion (FGD).

The detailed schedule for the HFA was determined through consultation with DHMT staff. The sample frame in each district included

1. all community health centres (CHC)
2. a selection of health posts (4-6 health posts per district).
3. a private health clinic in 2 districts (Ermera and Aileu)<sup>3</sup>

Every attempt was made to select health posts (HP) with contrasting conditions. Specifically, well functioning HPs and HPs considered to have problematic management or logistics were included. Facilities were also selected according to contrasting ease of access, and 3 HPs were deliberately selected because they do not have a MW at their facility.

Each facility was visited by an assessment team of 2-4 people. Teams were comprised of HAI staff, the newly appointed maternal and child health district program officers (MCH DPO), as well as others hired for the duration of the assessment.

Assessment tools were adapted from the WHO Safe Motherhood Needs Assessment (1998) and translated into Tetum. Each assessment included:

1. A questionnaire for the head of the DHMT

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<sup>3</sup> Manatutu district does not have any private health clinics.

## **ANNEX 2B: Baseline Health Facility Assessment**

2. An interview with the health facility manager
3. Interviews with all MWs present on the day of assessment
4. Direct observation of MWs conducting antenatal consultations
5. Exit interviews with mothers following antenatal consults
6. Review of a sample of partographs
7. Direct observation of the health facility equipment and supplies relevant to maternal and neonatal health

The adapted assessment tools were tested with mothers and MWs in a 1 day pilot exercise with team members at the outpatient clinic of the National Hospital.

The details and findings of the focus group discussions with the MWs are presented separately.

### **Results**

#### **PART A: HEALTH FACILITIES**

Assessments were undertaken at **32 health facilities** (19 CHCs, 11 HPs and 2 private clinics) over a 2month period (December 2004 - February 2005), coinciding with the peak rainy season. The assessment schedule is attached (**annex 1**).

- **Access:** Three facilities (Coliate Telu HP and Lemeia Craic HP in Ermera and Bereleu HP in Aileu) which had been selected for assessment according to the criterion of difficult access were unable to be assessed as heavy rains made access impossible or unsafe.
- **Coverage:** The 30 government facilities had catchment populations ranging from “0-1000” to “20,000-30,000” people. The commonest catchment size was 1-5,000 people (1/3 of facilities). Private clinics did not nominate catchment areas.
- **Fundamental logistics:** The number of HFs with running water and electricity on site was not documented; however, it became readily apparent that one/both remain a problem for a significant number of facilities, particularly HPs. Although many facilities have generators, many lack sufficient money for fuel to run them. Most HPs and some CHCs lack on-site radio communication, usually relying on the closest police radios for communication. Only district capitals have on-site transport for emergency transport. Each district has one ambulance but fuel budgets are inadequate for regular trips to distant subdistrict CHCs/HPs and back (up to an 8 hour round trip in some districts), and there is frequently a need for an ambulance at more than one site at one time.
- **Staffing:** Altogether the facilities are served by **155 staff: 53 MWs, 77 nurses, 17 nurse assistants and 8 doctors** (based in district capitals). 3 HPs (Lacao, Hatukona and Motaulun) have no MW on staff.
  - **Division of workload:**
    - Antenatal care (ANC) is, with few exceptions, delivered by MWs. HPs without MWs rely on mobile visits of MWs from CHCs, or nurses (untrained in ANC) do it in their absence. Where present, doctors also undertake ANC.

## ANNEX 2B: Baseline Health Facility Assessment

- Delivery care is provided by a wider range of personnel. In 24/32 facilities nurses undertake deliveries. Only at Gleno and Aileu CHCs were doctors said to be active in undertaking deliveries.
- Postnatal care, of both mothers and babies, has the least developed system of any. Postnatal care of babies in particular is provided by both nurses and MWs and, sometimes, by doctors.
- *Services provided:*
  - *Routine services:* Though many facilities have scheduled days for **ANC** the vast majority stated that they can and do provide ANC for women who present on unscheduled days. Only 5 sites (including all 3 without a MWs) do not meet this demand. Postnatal services are, without exception, unorganised and unscheduled. Neonatal checks are not separated from health prevention (immunisation) or routine curative services (IMCI where provided). 10 MWs said they had a system for postnatal checks, all provided in the home. In Manatutu and Aileu towns MWs and doctors conduct some home-based postnatal visits.
  - *Mobile clinics (MCs)* are provided from 27 of the 32 facilities. Almost all provide immunisation and curative care, but only half the mobile clinics delivered ANC or health promotion. Postnatal care is almost never distinguished from curative care and is reliant upon patients to present for care. It is not promoted as a special service. Mobile clinics are almost all staffed by MWs and/or nurses and rarely by doctors or nurse assistants. Over half the MWs interviewed took part in these clinics. Some of the MWs (11) said they took part in outreach activities other than those provided by the MCs, usually postpartum home-visits.
  - *On-call services* for delivery and for care of sick mothers or newborns are available (24 hours) from all government facilities. Only CHCs in district capitals have staff resident in the facility after-hours; otherwise staff are contactable from their homes. Some staff live far from the facility.
  - *Referral care:* Taking into account time required to organise transport, 5 facilities are 4-6 hours (“real time”) from the nearest centre providing a higher level of care (not necessarily a referral hospital). One facility (Lacao HP) is more than 6 hours away. At almost half of the facilities visited a MW accompanies obstetric patients for emergency ambulance referrals.
  - *Laboratory back-up* for MNC is almost non-existent. It is limited to 4 facilities in capitals and 1 private clinic where haemoglobin and dipsticks urinalysis can be done. Syphilis testing is unavailable.
- *Workload:* **Annex 2** illustrates the numbers of severe complications of pregnancy, delivery and the neonatal period that clinic staff had encountered and/or referred within the past *6 months*. The most commonly encountered complications are retained placenta, breech presentation and incomplete miscarriage. However, the frequency of any single complication is still low—averaging at 2 cases/month among 32 health facilities. Approximately 1 in every 3 facilities had encountered a stillbirth, a neonatal death (most delivered at

## ANNEX 2B: Baseline Health Facility Assessment

home), and a very preterm baby, within the last 6 months. Three sites reported no complications. The numbers of ANC clients and MW-attended deliveries can be obtained from routine MOH reporting, so they were not collected for the purpose of this report.

- *Space dedicated to MNC:* The maximum bed capacity at any district facility is 10 (Manatutu CHC). Provision of inpatient (overnight) care is only available in the capitals. These facilities have up to 5 beds specifically allocated for the purpose of delivery/maternity care. Other facilities have, generally, only 1 but up to 3, examination bed(s). These are used for ANC and, in theory, for deliveries. The ANC/delivery room is usually separated from the rest of the clinic; however, the windows are, almost without exception, not covered. None of the facilities visited had any place prepared for neonatal care after birth (including resuscitation). Gleno CHC<sup>4</sup> said they had an infant warmer for this purpose, but that it was in storage. Two other clinics produced (apparently unused) hot water bottles, which they said were used for warming babies.
- *Equipment/Supplies/Essential medications:* **Annex 3** lists the equipment and medications available for MNC at the facilities visited. At the few clinics where obstetric instruments were available (the CHCs), the equipment was clearly not in use. The majority was piled in cupboards, often unopened. When asked to demonstrate neonatal resuscitation equipment MWs sometimes, after long delays, produced pieces of equipment clearly meant for other purposes. No facility had a neonatal ambubag<sup>5</sup>/mask; most have small disposable suction apparatus for babies (usually included in the “Bidan kit”). Even basic essential medications are rarely available at all of the facilities. Contraceptives are in dire short supply, except condoms.
- *Documentation and clinical guidelines:*
  - With the exception of IMCI wall charts and protocol books in Ermera and Liquisa, there were no **clinical guidelines** for MNC in any clinic. Six MWs named the Safe Motherhood modules as clinical guidelines; however, they were mostly kept at home.
  - The majority of clinics (28) were using the new MOH/UNICEF ANC **log books**; though 9 facilities were using them incorrectly.<sup>6</sup> Most places had only recently changed over to this new registration system or were still in flux. Many facilities had a separate register where births were recorded again. Postpartum visits were recorded either in the ANC book, the IMCI register, and/or in the general treatment registers for both mother and baby. Twenty four of the clinics had/were using the new mother-child cards, which include an ANC record. Only 15 facilities had any partographs, and those that had them were rarely using them. The duplication of documentation is a problem. At one CHC tetanus toxoid immunisations were seen to be recorded in 4 separate places.

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<sup>4</sup> Gleno CHC was under renovation and not in use at the time of assessment. The inpatient staff were operating out of a make-shift facility. At a subsequent visit to the CHC in March the birthing area was seen to include a table where a baby could be resuscitated.

<sup>5</sup> At the subsequent visit to Gleno a (unclean) neonatal ambubag/mask was located—though it was not kept in the birthing room.

<sup>6</sup> Misunderstanding of K1, K2 etc

## ANNEX 2B: Baseline Health Facility Assessment

- *Health education materials* are in relatively short supply. The new mother-child card has some health information about danger signs and about nutrition in pregnancy. Twenty facilities had breastfeeding promotion materials (posters), and a small number also had materials promoting family planning and HIV. There are no materials anywhere on danger signs in newborns. IMCI materials do not address this age group.
- *Problems*: MWs and facility managers<sup>7</sup> were asked to identify problems that significantly impaired their ability to effectively work in the area of MNC. The responses have been summarised in **Annex 4**. The most frequently cited problems include logistical barriers (transport, communications, water and electricity), inadequate staffing and supplies, and the fundamental preference of women to deliver at home. Two MWs stated that they encountered no significant problems.

### **PART B: STAFF and QUALITY OF CARE**

Altogether 50 staff members were assessed: 46 MWs (29 senior and 17 junior) and 4 nurses (all with responsibilities for deliveries). To assess training needs and quality of care, each staff member was interviewed and observed doing ANC<sup>8</sup>. To validate this information, mothers who had just received ANC were interviewed about their experience as they left the facility.

- *Training and supervision experience* :
  - The 4 nurses and 5 MWs had not yet been trained in Safe Motherhood. All others were trained between 2000 and the present. The only supervision that they received was one meeting with Dili trainers held at district level.
  - Nine MWs had recently undertaken family planning training.
  - The only training that nurses/MWs had received in any element of newborn care included breastfeeding training from Alola Foundation (17 staff) and IMCI (10 staff from Liquisa and Ermera only) in 2003 and 2004. IMCI covers care of babies at least one week in age and includes recognition and treatment of danger signs, encourages breastfeeding, and provides immunisations. Two of the staff mentioned recent STI training and 1 mentioned EPI training as relevant to neonatal care. Only IMCI training included any supervision. This occurred at the workplace within 2 months of training.

### ***Antenatal and Delivery Care***

*Quality of ANC*: **Annex 5** compares the results of the 3 methods used to assess the quality of ANC. The table documents how frequently individual elements of ANC (listed from the Safe Motherhood standard) are included in consultations. Distribution of mosquito nets at ANC, which had started recently in some areas, was not assessed. It should also be noted that the national policy on routine antimalarials during pregnancy had recently changed: currently, malarial prophylaxis is not recommended during pregnancy in Timor Leste.

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<sup>7</sup> Only 11 managers responded to this question due to printing problems with the forms

<sup>8</sup> The nurses who do not do ANC were not assessed in this component

## ANNEX 2B: Baseline Health Facility Assessment

In general, the fundamental “5 T’s” of ANC<sup>9</sup> are performed regularly. In contrast, elements relating to past history and risk factors as well as counselling items and items relating to birth preparedness are performed particularly poorly.

*Observations of ANC:* Altogether 32 ANC consults were observed (the time required for travel to facilities meant that many ANC clients had already left the clinic by the time the assessment team arrived<sup>10</sup>). Just under 1/3 of the women observed were primiparous. Only 3 were in their first trimester; the rest evenly divided between 2<sup>nd</sup> and 3<sup>rd</sup> trimesters. Almost half of the women were attending for the first time. The women were fairly evenly distributed in age, from < 20 years to 40 years. The thoroughness of the consults is illustrated in **Annex 5**. Additional observations made during the consults include the following:

- Only 6 women asked any questions during the consult
- With the exception of brief explanations about the iron supplement, only 10 MWs explained their actions to the mother during the consult.
- Although the majority of MWs were polite to the mother during the consultation, on occasion the MW was observed not to say a single word to the mother!
- An excessive amount of time was often spent transcribing information onto forms.
- Counselling is, almost without exception, cursory.

*Exit interviews* were done with 49 women who had just attended ANC; they were asked about their experience. Most (84%) had their ANC card with them on the day of consultation. All but 3 women had walked to the clinic; just under half had walked for more than half an hour. Although only 3 of the women were in the first trimester of pregnancy about 1/3 had first attended ANC in their first trimester and 11 were primiparous. Seventeen women had a live-born child die; ten were during the neonatal period. Two mothers had lost 4 of their children. Only 3 women had delivered their last baby in a health facility. They cited the following reasons for not delivering in a facility:

- the birth happened too quickly
- they lived too far away
- they hadn't had any problems (previously/with that pregnancy)
- because it “is normal” (to deliver at home)
- because it was night
- because the facility was not adequate
- because they wanted to be with their family
- because the MW had not told them to deliver at the facility

Almost half of the women had a MW attend their last delivery (at home), but almost as many were delivered by their family. Only 6 women delivered with a *dukun*. Two women delivered alone. A small number of women (5) admitted to paying (up to \$10) for help with their last delivery. About 3/4 of the women said they had a check-up after their last delivery, virtually all at the clinic and with a MW. The vast majority

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<sup>9</sup> 5 T's refers to weight, tetanus immunisation, blood pressure, fundal height and iron administration.

<sup>10</sup> Commonly by 1030 or 11am there would not be any ANC patients remaining at the facility.

## ANNEX 2B: Baseline Health Facility Assessment

of check-ups occurred a month or more after delivery and in about 2/3 of the cases the baby was seen at the same time, usually just for weighing and immunisations.

Women were asked to explain any signs/symptoms of illness during pregnancy that signified serious illness. Although only 35 women responded to this question, 22 said they did not know any such signs. Four women said fever, 5 bleeding, 3 dizziness, 2 vomiting and headache; stomach ache, high blood pressure and anorexia were each said once. Thirty-four women said the MW had explained the progress of her pregnancy; eight said they asked any questions, and the majority said they were told when to next return.

*A sample of ANC booklets (24) were reviewed as another check of the thoroughness/quality of ANC. The overall impression was that the cards were not being used to their full potential. Often they were incompletely filled out, and the health promotion components were never seen to be used during ANC.*

*Attendance at deliveries:* 41% of the staff had delivered a baby in the past week; 41% within the preceding 2-4 weeks; 4% in the past 1-3 months; and 12% between 3 and 6 months ago. The number of deliveries each assisted in the preceding 3 months is tabulated here. This translates to most MWs delivering between 1 and 3 babies/month, but a significant number deliver far fewer.

Number of deliveries assisted in past 3 months	n = 48 <sup>11</sup>
None	3
1 - 4	16
5 - 9	12
10 -14	9
15 -19	4
>/= 20	4

76% of all deliveries assisted by MWs in the past 3 months occurred in the home. About 50% of the time MWs used a motorbike to attend home deliveries, and the other 50% of the time they went on foot. A vehicle (ambulance) was rarely used and no one had used any other form of transport recently. Only 5 MWs admitted to ever receiving and accepting any financial reimbursement for assisting at home deliveries; though about 50% said they were given payment in kind such as vegetables, a chicken or other food items. All MWs except those at Manatutu CHC stated they assisted with home deliveries after hours, but only 22% assist with facility deliveries after hours.

MWs were asked to name conditions or signs in pregnancy, delivery, or the postpartum period that would cause them to refer a woman to a higher level of care; the results are presented in **Annex 6**. Fewer than 50% of MWs spontaneously nominated 7 of the 11 indications for referral. (It should be noted that MWs in Timor Leste have been taught a very similar list of indications for referral of women from HP to CHC, but no standards yet exist for referral from CHC to higher level of care). The results from this assessment have not been analysed by place of work of the MW.

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<sup>11</sup> Only government clinics (and staff) undertake deliveries

## **ANNEX 2B: Baseline Health Facility Assessment**

*Partographs:* An attempt was made to review completed partographs in order to assess quality of delivery assistance; however, as stated above, partographs are not currently being used regularly. In several places the most recent date on a completed partograph was a year or two earlier. With regard to partographs, MWs stated that:

- they were difficult to use at night/in people's homes
- they did not have any forms
- they had not been instructed to use them<sup>12</sup>
- they forget to use them.

*TBAs/dukuns:* 89% of the staff said they knew the *dukuns* operating in their area, and many MWs have some form of contact with them (referred patients, notification of deliveries, etc). The number of *dukuns* known to be operating in each catchment area varied between 0 and 3. Almost 1/3 of the MWs said they never assisted *dukuns* with deliveries; about 2/3 said they assisted them "occasionally," and about 10% said they helped them often. A small number of MWs had contact other than assisting at deliveries: 1/5 of MW said they supplied the *dukuns* with gloves, a smaller number said they gave advice (on clean delivery care) and several had good collaboration whereby *dukuns* would facilitate ANC attendances and would report deliveries to the clinics.

### ***Postnatal and Newborn Care***

*System:* Almost 1/5 of the MW said they never ask mothers to return for a postnatal check, and another 1/5 said they ask her to return only "if she has a problem". About 1/3 ask women to return within the first week, and another 1/3 within the first 6 weeks after delivery. Both distance and cultural seclusion were offered as explanations for not requesting postpartum checks more frequently. The majority of MWs stated they attempted to contact the mothers who did not attend for a postpartum check, but this was frequently qualified with a comment about distance. Although 84% of MWs stated they do postnatal checks in the home, 58% of these stated that this activity was sporadic only. Women who live close to the clinic are much more likely to receive a postnatal check either at home or at the clinic. All MWs state that when they undertake a postpartum check they attend to the mother and the baby.

Asked when they recommended to mothers that babies be brought for their first vaccine, 28% said "within the first week"; 47% "within the first month"; 7% "at next scheduled immunisation day"; 12% after delivery; 5% replied that it was up to the mother, and 0.5% recommended 2 months after delivery. Several cited cultural seclusion as being incompatible with their recommendation. At one site (Laclo CHC), vaccines are given to the babies in their homes. The EPI schedule in Timor Leste recommends the first vaccine should be given "at birth or as soon as possible after birth".

### ***Quality:***

*Knowledge of newborn care* was assessed by asking 1) what care the nurse/MW provided to the baby immediately after delivery, 2) what elements the nurse/MW covered for the baby at a postnatal check and 3) what neonatal danger

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<sup>12</sup> Though use of the partograph is taught in Safe Motherhood

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signs/symptoms the nurse/MW knew. The information is presented in **Annex 7**. While most MWs know the 3 steps of essential newborn care (cut the cord, dry and wrap the baby and commence early breastfeeding), knowledge of basic newborn resuscitation is low. Apart from examining the cord and checking breastfeeding, knowledge of routine postnatal care of the newborn is also low.

To validate this information an attempt was made to conduct some interviews with mothers of young infants (< 4 months) at clinics. The results of this activity are not reported because young infants were so infrequently present at the clinics. Only 7 mothers with babies < 4 months were found and interviewed. It is notable that all babies had been delivered at home; only one had been assisted by a MW, and none had been visited at home after the delivery. One baby was accompanied by his grandmother—the mother had died of haemorrhage in the home after delivery.

### **Focus Group Discussions with Midwives**

Focus group discussions were held with a group of midwives in each district. The purposes of the discussions were to better understand the knowledge, attitudes, beliefs, and practices of midwives about maternal and newborn care best practices, and to explore the midwives' knowledge and beliefs about local traditions and practices that affect maternal and newborn care in their districts. The findings from the discussions have been incorporated into the body of the detailed implementation plan. The full report can be seen in **Annex 8**.

### **Summary/Conclusions**

This report is a comprehensive assessment of MNC services available at 32 health facilities in 4 of the central districts of Timor Leste. The assessment attempted to cover many elements of health care relevant to MNC: facility logistics, services and supplies, staff knowledge and performance (quality of care), patient load (demand for services) and patient satisfaction.

The assessment was undertaken in order to facilitate detailed planning for the health services improvement arm of the HAI MNC program; however, because the assessment was based on the Safe Motherhood Needs Assessment tool (WHO 1998), the findings also serve as a supervision report of MW. The process also served as a capacity building exercise in assessment and supervision for the newly appointed MCH-DPOs.

#### *Constraints*

The report is the first report of its kind to study MNC services at the health facility level in Timor Leste. There are however some constraints which should be considered when interpreting the findings. The survey design precludes any statistical inferences. The sample did however include the majority of staff at the majority of government facilities, and facilities were selected, with guidance from DHMT, according to principle of incorporating maximum variation. Thus the findings can be generalized to the districts concerned; though some of the most compromised facilities may have been those that were not able to be assessed due to lack of road access. The assessment of ANC and exit interviews was in some places constrained by the low daily patient loads—the patients for the day already having left by the time the team arrived. In addition, answers to all questions are not available for every facility and every MW. In spite of the pilot testing we experienced

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some difficulties with interpretation of some of the questions on the forms. This was most often due to the relative inexperience of some of the team as well as some problems with translation of certain questions. The denominator for each question is reported in the body of the report.

### *Key findings and Recommendations*

The detailed findings of the assessment are presented above and in the accompanying annexes. Below are the key findings and their implications and corresponding recommended actions.

#### *Antenatal care (ANC):*

*Findings/Implications:* ANC is provided by MWs; however not all HF have MWs. MWs only attend about 50% of mobile clinics, and nursing staff have not been trained in ANC. ANC is often not provided in a truly private setting. ANC consults almost always include the fundamental components of ANC (the “5T’s”) but rarely include any quality counselling; communication with patients is generally poor. This, combined with the poor understanding of health and the unquestioning nature of many patients, means the opportunity for health education and birth planning at ANC is rarely utilised. Husbands are not seen accompanying their wives to ANC. In addition, the recent change in documentation for ANC is currently creating some confusion amongst staff. There is a need to improve the quality and quantity of counselling and communication during ANC. There is also a need to increase the availability of ANC services and to ensure ANC is provided in private surroundings wherever possible. In addition, documentation/recording for ANC should be supervised.

#### *Recommendations:*

- i) Training in counselling and communication skills for health staff, focusing on the essential communications for ANC. This is essential to improving health knowledge as well as birth preparedness of the women of Timor Leste.
- ii) Training for nurses in ANC in order to improve accessibility of ANC.
- iii) ANC should be offered at all mobile clinics.
- iv) Provide MWs with supervision/revision of use of the new documentation/recording for ANC.
- v) Health facilities should ensure privacy during ANC.
- vi) Men should be encouraged to accompany their wives to ANC.

#### *Delivery Care: -*

*Findings/Implications:* The vast majority of births take place at home and only some (less than ½ in our sample and less than ¼ in the DHS) are attended by MWs. All MWs (except those at Manatutu CHC) assist with deliveries in the home; however, because of the relatively low demand for their attendance, their monthly quota of deliveries (and thus cumulative experience) is often low. Although nurses have not been trained in delivery care many assist deliveries in the home. Staff often walk to attend home deliveries, naturally limiting the distance they are likely to travel; although motorbikes are available, many MWs cannot ride them. *Dukuns* assist some deliveries, though not many. Almost all MWs know the *dukuns* operating in their area, and many have some form of interaction or collaboration with them.

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Few health facilities provide an environment conducive to delivery. The birthing area frequently lacks privacy, is very “clinical,” often dirty, and the fundamentals of water and power are often unavailable, making “clean and safe” delivery a challenge. Partographs, an essential standard for monitoring safe delivery, are not used for the majority of deliveries; they are unavailable at many facilities.

The number of cases of obstetric emergencies seen at facilities is low, most likely reflecting the underusage of health facilities. It was not clear whether MWs were very familiar with the indications for referral of obstetric emergencies. Although few MWs spontaneously nominated many correct indicators for referral, a different method of assessing this may have resulted in better responses.

The capacity for referral of obstetric or neonatal emergencies either to/from health facilities is very limited in many cases, particularly from health posts or CHCs that are remote from district capitals. It is recommended that women with particular obstetric emergencies, eg PPH, be transferred to a health facility capable of providing EMOC within 2 hours (JHPIEGO/MNH – ref. 2). The closest surgical facility (where caesarean section can be provided) for the majority of the facilities visited is Dili National Hospital. It takes much longer than 2 hours to call an ambulance, wait for its arrival and then arrange transfer of a patient to Dili from many of the facilities visited during the assessment. In Manatutu and Ermera districts, the only district ambulance waits over 3 hours from several subdistrict CHCs and HPs. A round trip from subdistrict CHCs to the closest referral hospital could take 9 hours or more.

### *Recommendations:*

- i) Undertake focused promotion of facility based deliveries and the advantages of delivery with a skilled birth attendant
- ii) Undertake focused promotion of the danger signs of delivery complications and how they can be managed/avoided
- iii) Pilot means to facilitate skilled birth attendance
  - a. Create birth friendly health facilities (adjusting current facilities) – incorporating some cultural needs such as ensuring availability of hot water, ensuring privacy and involving the community in planning of such a facility.
  - b. Pilot birth friendly maternal waiting homes in selected areas.
  - c. Increase transport options for MWs: train in motorbike riding; nominate other facility/community members to accompany/drive MW to deliveries; consider other available community transport.
- iv) Pilot means of emergency community referral, involving community leaders, for unexpected antenatal or obstetric emergencies.
- v) Ensure all MWs are trained in emergency obstetric and neonatal care. Ensure referral standards are adapted and that MWs have a clear understanding of these standards.
- vi) Inter-sectoral collaboration to facilitate emergency referrals (eg police).
- vii) Seek funds to support additional ambulances to be kept in remote areas of districts and radio communication for HP.
- viii) Until such time as more MWs are available in remote areas, there may be the need to temporarily support some *dukuns* to provide delivery care for areas where access to a skilled attendant is not feasible; such a strategy

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would need careful planning and support. More generally, consideration should be given to using *dukuns* to facilitate MNC and communication with the formal sector. They could be formally involved with counselling, postpartum care and as birth-coaches for mothers.

### *Postpartum/neonatal care:*

*Findings/Implications:* Although perinatal<sup>13</sup> and neonatal death is not uncommon (1/3 of HFs knew of a neonatal death within the 6 months before the survey), this assessment found the capacity to adequately manage sick newborns is very limited in all HFs visited. No facilities have an adequate place or basic equipment for newborn resuscitation and care after birth. Although most MWs know the steps of “essential” newborn care (which are taught in Safe Motherhood), knowledge of neonatal resuscitation, the components of comprehensive neonatal care and of danger signs is low; reflecting the paucity of training in these areas to date.

Current services for integrated and comprehensive postpartum care—integrated care of the mother and newborn within the 6 weeks after birth—are also inadequate. Cultural practices, a lack of perceived need for postpartum care, and lack of a system for delivering postpartum care mean that few women/their babies have any postpartum care before the end of the first month after delivery, particularly if there was no MW at the delivery. There is no regular service for postpartum or neonatal care either at health facilities or in the community; therefore, the most common first contact after delivery is for neonatal immunisation, which often occurs later than the recommended standard. Although some MWs do postpartum home visits, these are sporadic and tend to be only for those who live close to the HF. The current components of care usually provided at a postpartum visit need revision and expansion.

### *Recommendations:*

- i) Train nurses and MWs in neonatal resuscitation and comprehensive postpartum care
- ii) Develop national standards for postpartum care
- iii) Develop standard system for offering postpartum care services, both at facilities and in the community.
- iv) Focused promotion of the value of postpartum care
- v) Focused promotion of danger signs in the postpartum period (mother and newborn)
- vi) Ensure facilities equipped with basic equipment required for neonatal resuscitation and care
- vii) Pilot means of emergency community referral, involving community leaders, for unexpected postnatal emergencies.
- viii) Train cadre of community volunteers to assist with community based postpartum care

### *Health facilities, systems and services, crosscutting issues*

*Findings/Implications:* Significant logistic challenges still exist for many health facilities, particularly those in more remote areas. Innovative solutions may be

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<sup>13</sup> Perinatal death is a death of a foetus after 7 months pregnancy and before the end of the first week of life; it includes stillborn babies. A neonatal death is the death of a live born baby before 28 days of age.

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needed to ensure the availability of water at facilities, and, given the preference for and benefits of hot water, there is a need to explore means of providing this also. Funds need to be sourced to address the problems of lack of communication, petrol funds for generators, and ambulances at many facilities. It is imperative these issues are addressed in order for health facilities in Timor Leste to be able to provide safe emergency services. Systems of facility and staff supervision need to be strengthened in order that supplies are readily available and that quality of service provision can be regularly reviewed. Materials for health promotion and clinical guidelines for MNC need to be developed and disseminated. Documentation of MCH services needs to be streamlined.

Facility managers need to be assisted to review services provided from their facilities. There is a need to expand outreach and to ensure health promotion; ANC and postpartum care are inherent to these services. Facility staff need to be capable to provide these services. As staffing stands, this may mean nurses will require training in areas traditionally provided by MWs, as they already provide these services.

In general there is a need to improve the linkages between the facilities and the communities they serve in order to determine how best to resolve many of the problems highlighted above—tailored particularly to local geographical/logistical challenges and realities.

### *Recommendations:-*

- i) Facility managers to work together with DHMT and communities to address fundamental logistic issues.
- ii) Central level MOH to address resourcing for fundamental logistics as highlighted above.
- iii) System of regular MCH supervision be established; MCH DPO be trained to coordinate this system
- iv) Develop/disseminate clinical guidelines for MNH for use in facilities
- v) Develop/disseminate health promotion materials for MNH
- vi) DHMT/MCH DPO to work with facility managers to address documentation system for MNH
- vii) DHMT/MCH DPO to work with facility managers to address outreach services and staffing capabilities
- viii) Nurses in areas not served by a MW be trained in ANC/delivery care/PPC
- ix) Develop forum for dialogue and cooperation between communities and health facilities.

### **References**

1. [www.who.int/reproductive-health/MNBH/smna\\_index.en.html](http://www.who.int/reproductive-health/MNBH/smna_index.en.html)
2. [www.mnh.jhpiego.org/resources/emoc.asp](http://www.mnh.jhpiego.org/resources/emoc.asp)

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### *Annex 1: Schedule of Facilities visited/district*

<b>Date</b>	<b>Site/s visited</b>
Dec 1	Ulmera HP
Dec 2	Remexio CHC
Dec 7	Liquica CHC
Dec 9	Gleno CHC – Bazartete CHC - Motolaun HP
Dec 10	Ermera CHC - Maubara CHC - Guico HP
Dec 13	Railako CHC - Letefoho CHC - Letefoho CCT clinic
Dec 14	Hatolia CHC - Atsabe CHC - Lacao HP
Dec 15	Manatutu CHC - Fatubessi HP - Soibada CHC
Dec 16	Laclubar CHC - Horhorai HP - Lacro CHC
Dec 17	Natabora CHC - Laleia CHC - Carui HP Cribas HP
Dec 20	Aileu CHC
Dec 21	Uma Ita Nian clinic Fatubossa CHC
Dec 22	Liquidoi CHC
Dec 28	Marusa HP
Dec 29	Laulara CHC
Feb 3	Maumata HP

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**Annex 2: Numbers of complications of pregnancy, delivery and the neonate seen at HF in the last 6 months and/or requiring referral.**

### **Maternal – antenatal**

▪ Severe anaemia	6
▪ APH	8
▪ PET	6
▪ Eclampsia	1
▪ Complicated miscarriage	11
▪ Ectopic	2

### **Maternal – delivery**

▪ PPH	6
▪ Retained placenta	17
▪ Breech	13
▪ Sepsis	3
▪ Ruptured uterus	1
▪ Twins	10

### **Neonatal**

▪ Stillborn baby	11
▪ Neonatal death < 1 wk	
○ born a/h	11
○ born at HF	2
▪ Assisted baby breathing	4
▪ Very preterm baby	9

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### Annex 3: Equipment and Supplies at the health facilities (n = 29)

- this component of the assessment not done for CCT Ermera, HP Funar (MW interviewed but facility not visited as inaccessible) and Lacao.

Equipment		Drug	
BP cuff	29	Diazepam	19
Stethoscope	29	Ketamine	3
Fetal stethoscope	22	Lignocaine for LA	29
Thermometer	29	Pethidine	4
Suction	17	Ampicillin o/iv	26
Speculum	19	Penicillin im/iv	27
Vacuum extractor	3	Ceftriaxone/Ciprofloxacin	7
Forceps	3	Gentamicin	19
Scissors	27	Cotrimoxazole	26
Needle holder	26	Tetracycline ointment	24
Suture and needle	24	Chloroquine	29
Gloves	27	Quinine	19
Other protective clothing	23	Mefloquine	1
IV kit	26	Fefol	28
Urine dipstix	6 (2 expired)	Aldomet/Propranolol	19
Wrap/towels for baby	3	MgSO4	13
Neonatal resuscitation bag/mask	2 (Atsabe and Gleno)	Contraceptive pill	3
Cord ties	27	Depot Provera	19
		IUD	1
Steriliser/close access to one	17	Condom	17
		Tet tox and BCG	20
<b>OXYGEN</b>	2	Oxytocic	27
Baby Scale	22	Disinfectant	21
		Intravenous fluid	26

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### Annex 4:

<b>BIGGEST PROBLEMS FACING CLINIC/STAFF WORK IN MATERNAL/NEWBORN CARE</b>	<b>FACILITY MANAGERS OPINIONS (n = 11) †</b>	<b>MW OPINIONS (n = 46)</b>
Logistics at clinics (communication, water, electricity, clinic space – beds/delivery room)	<b>8</b>	<b>31~</b>
Transport: lack transport for staff (or staff cannot ride bike) or for emergency patient referrals or for patients to come to clinic	<b>5</b>	<b>22~</b>
Staffing		
- Insufficient staff/staff insufficient for workload	<b>5</b>	<b>9</b>
- Need training (newborn care)		<b>2</b>
Geographic (difficult access – to/for patients)	<b>3</b>	<b>4</b>
Health system issues		
- not allowed to deliver at private clinic		<b>1</b>
- patients resist referral inconvenience and fear	<b>1</b>	<b>3</b>
Public health		
- late presentation/poor care-seeking	<b>2</b>	<b>8</b>
- women prefer home delivery/do not call MW/use dukuns		<b>1</b>
- high fertility rate		<b>1</b>
- women too busy for ANC/don't come		<b>2</b>
- poor understanding of health		<b>2</b>
Supplies insufficient **-		<b>9</b>

\*\* Items stated to be insufficient = delivery instruments, bidan kits, pregnancy tests, ambubag (baby), incubators, oxygen, speculums, vaccines, height measures, sterilisers.

† Only 11 managers answered this question due to printing problems with the forms.

~ “referral difficulties” included both as communications and transport difficulties

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Annex 5: Assessment of Quality of Antenatal Care

<b>ELEMENTS OF ANC</b>	<b>% MW who volunteered they did this during ANC consults n = 44</b>	<b>% staff observed to do this during ANC consults n = 29</b>	<b>% mothers who stated this occurred during their ANC consults n = 49</b>
Ask gestation	89	88	
Ask parity	93	78	
Ask about past pregnancy outcomes	50	41	
Ask about past medical history	20	6	67
Ask about complications this pregnancy	30	63	
Ask about complications in past pregnancy	30	37	
Examine abdomen	96	81	82
Listen to baby's heartbeat	70	69	80
Check Blood Pressure	93	97	88
Check weight	89	84	
Check height	59	38	
Take blood	7	0	10
Take urine	2	0	4
Give iron/folate	83	75	96
Give malaria medicine	4	6	14
Give tetanus immunisation	87	53	
Information/advice about nutrition	54	31	73
Discuss danger signs/what to do if they occur	33/22	9	61
Discuss place of birth	30	31	73
Discuss benefit of birth in health facility	22	16	57
Discuss importance of MW at delivery	33	16	
Discuss how to care for newborn	7		55
Discuss breastfeeding	24	25	2
Discuss danger signs in newborn	9	0	
Discuss HIV/AIDS/STI	4	0	20
Discuss family planning	28	9	33
Discuss how to get to HF in an emergency	15	9	57
Inform when to return for next check	50	66	

< 50%    50 – 74%    75 – 100%

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### Annex 6: Assessment of Referral Indications

SIGNS THAT WOULD PROMPT YOU TO REFER A PREGNANT/POSTPARTUM WOMAN TO HEALTH FACILITY	n = 47
Previous bad obstetric history/scars/previous stillbirth	23%
Hypertension/headache/swelling/fits	72%
Anaemia/pallor/fatigue/breathlessness	36%
Cessation of foetal movement	23%
Abnormal position of foetus	72%
Sepsis/offensive discharge/postpartum abdominal pain	6%
Heavy bleeding	85%
Multiple pregnancy/large abdomen	38%
Obstructed labour	43%
Retained placenta	4%
Light bleeding	26%
Multiparous women/older woman	2%
Abnormal conscious state/collapse*	2%
Other medical indication*	4%

The MW were asked to list all the conditions that would prompt them to refer a woman to a higher level of care. They were not presented with a list. The conditions marked in blue are considered conditions that one would expect should be referred to a centre where emergency obstetric care can be provided, yet fewer than 50% of midwives spontaneously nominated these conditions as indications for referral.

*\* Neither of these 2 indications was listed on the Safe Motherhood Needs assessment but was suggested by a midwife at interview.*

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### Annex 7: Assessment of Neonatal Care

<b>ROUTINE CARE FOR NEWBORN IMMEDIATELY AFTER DELIVERY</b>	<b>n = 47 responses</b>
Cut the cord	100%
Check/assess condition – breathing, colour etc	43%
Dry the baby	72%
Suction	34%
Warm/wrap the baby or skin-to-skin contact with mother	64%
Resuscitation (assist breathing)	23%
Early breastfeeding	66%
Eye care (drops/ointment)	15%
Other – weigh the baby (4), check the length (2), wash the baby (3), general exam (1), observe the baby (1) and unspecified medication (2)	

<b>ROUTINE CARE AT POSTNATAL CHECK OF BABY</b>	<b>n = 47</b>
Weigh the baby	21%
Examine the (whole) baby	47%
Check the cord (only)	89%
Check for danger sign or ask for symptoms	9%
Advise about danger signs	6%
Assess breastfeeding	70%
Advise about breastfeeding	26%
Give immunisation	23%
Other – check if passing stool and/or urine normally (7), jaundice (1), examine the eyes (1), check for cough (1) and check general care of the baby (1)	

<b>SIGNS THAT WOULD PROMPT YOU TO REFER NEWBORN BABY TO HEALTH FACILITY</b>	<b>n = 45</b>
Fast/difficult breathing	78%
Apnoea	44%
Poor colour – blue/pale	38%

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<b>Severe Jaundice</b>	<b>20%</b>
<b>Poor feeding</b>	<b>20%</b>
<b>Vomiting</b>	<b>0%</b>
<b>Limp/lethargic</b>	<b>2%</b>
<b>Fever</b>	<b>27%</b>
<b>Baby feels very cold</b>	<b>0%</b>
<b>Fits/convulsions</b>	<b>16%</b>
<b>Very low weight</b>	<b>40%</b>
<b>Looks premature</b>	<b>40%</b>
<b>Other – failure to pass urine (2), anal atresia (2), other congenital abnormality (6), umbilical infection (1), excessive crying (1) and absence of crying (5)</b>	

**Annex 8: REPORT OF THE FOCUS GROUP DISCUSSIONS WITH MIDWIVES**

In conjunction with the initial introductory meeting that was held in each of the four HAI program districts, a focus group discussion (FGD) was held with the majority of midwives (MWs) from each district.

**Objectives**

1. To explore the knowledge, attitudes, beliefs and practices of district facility based MW about maternal and newborn care (MNC).
2. To explore the knowledge and beliefs of district facility based MW about local traditions and practices affecting MNC of the communities and people in their district.

**Methods**

In each district the majority of MW from all health facilities (HF) attended the discussion. The FGD were facilitated by Dili-based East Timorese women who were familiarised with the materials and the purpose of the FGD beforehand. HAI staff, both expatriate and Timorese, were also present during the FGD. The list of questions used to guide the discussion was divided into 3 areas: antenatal care, delivery care and postpartum/newborn care. The list of questions is attached (annex 1). The FGD were conducted in Tetun. Both tapes and written transcripts were used to record the discussion and both methods were used to later transcribe the discussions which were, later still, translated into English. The findings have been grouped together under related headings and are summarised below.

**Results**

***Common cultural traditions relating to pregnancy.***

Pregnant women commonly carry something such as a rosary, a nail, a black band, a knife or scissors when they go out, especially at night. The sharp objects in particular are meant to protect the woman and her baby against evil which could take the baby away.

Traditional medicines are sometimes given to pregnant women (by older women) in order to facilitate an easy delivery.

Some pregnant women are forced to work hard (physical work such as carrying wood, heavy baskets, walking up/down the hills, farming) in order to make their delivery easier. Sometimes they are chided by others: "if you don't work hard then don't scream when the baby comes".

***Common prohibitions relating to pregnancy.***

There are quite a lot of food prohibitions (padtahan) which may vary with locality or by family. Consuming egg may result in blockage of the birth canal (presumably because the baby might be big), may cause a baby's (infant's) teeth to be ruined and can cause retention of the placenta. Drinking milk means you might have a big baby (a smaller baby is preferred – presumably for ease of birth). In a similar way prescribed iron tablets are said to cause a big baby. In Manatutu the women believe that if they eat fish the baby will have "scales" on the abdomen and neck and the baby will have itchy skin. Eating cold rice is forbidden and in Liquisa the MW said that people believe that eating fried rice can result in failure to progress in labour. Dried food must be eaten together with hot water. If women eat water cress salad

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(salad air/an griam) they believe they risk retained placenta. They also mentioned that the baby will be “hairy”, will have “yellow roots in it’s stomach” and that the baby will not be healthy/will have a big (swollen) abdomen. It was not clear what these last comments may be referring to.

There are also some prohibitions relating to work. In spite of what was stated above about excessive work being encouraged in order to facilitate delivery, we also heard that others prohibit heavy work (planting rice or corn, breaking corn, bending over, mopping the floor and pumping water) both near term and in the first trimester. In the first trimester the risk is of bleeding or that the evil/demon might make them have a preterm birth.

There are some other activities that are prohibited in pregnancy. Women in Liquisa cannot go to the river when the river is “full of prawns” (meaning is unclear). If they do then the baby will be born crooked/curled like a prawn or will “look like a fish”. Women should not lie flat on their back (*haklelek*) because that can “split the blood” and result in twins or breech baby. They cannot walk alone because they could get bad/evil temptation on the way and they cannot go out at night in case encounter bad/evil spirit.

Pregnant women are also not supposed to plait their hair or wear necklaces.

### ***MW perceptions of when most women come for ANC***

The MW varied considerably in their impressions about when most women come for ANC. Many MWs stated that women present late for ANC. They might present only at the beginning of the second trimester, only after the baby starts to move, only when they “begin to show” or only at term when they present to check the position of the foetus. They claim some women do not acknowledge they are pregnant until these stages or that they are too shy to come earlier. Other women will not come for ANC at all, only presenting when they are in labour. Others still will only present if and when they develop a problem eg bleeding or baby doesn’t move. In contrast, some *MWS* said that women now come for ANC with the first month of amenorrhoea, particularly those women living in the district capitals (i.e. the more educated women).

There is a general impression amongst the MWs that ANC attendances have increased significantly since the national ANC campaign (the “Safe Motherhood” campaign) last year and other health promotion activities. More women are coming, primiparous women are coming and women are presenting more if they have symptoms of illness. Some *MWs* stated that primiparous women are the poorest attenders but other *MWs* said the exact opposite. There is a general perception that the more educated women and urban women attend ANC more than other women.

### ***MW perceptions of barriers for women coming for ANC***

The MWs cited various barriers to women attending for ANC. Several factors relate to home circumstances interfere with ANC attendance. Some (though not all) women require permission from their husbands, mothers-in-law and/or mothers to go for ANC. Sometimes women do not receive permission; husbands request they remain at home to help with farming or household duties. In-laws have particular influence when the woman is living with them. Other times they are said to simply be

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“too busy” to go for ANC or that they are not free to go because no-one is available to care for the other children while they are gone. Many women are said to be too frightened/shy to go to ANC. They fear the tetanus injection, they are embarrassed to be checked by male doctors, they don't like being undressed for examination or they are embarrassed about being pregnant, especially if they have not long ago had a child<sup>14</sup>. Even when MWs do home visits for ANC women resist being examined. Logistics and other fundamental needs also impact on ANC attendance. Geography and distance from ANC make it difficult for women to access ANC. This is particularly a problem since Independence as families have dispersed back to traditional land. The poor conditions of roads (making access sometimes impossible by vehicle) and the costs involved in transport are other impediments to ANC attendance.

Perhaps equally, if not more importantly, MWs believe that many women simply do not recognise or understand the need for ANC. Others understand they should come but do not identify the need for themselves. Many feel confident without ANC, particularly those who have not had any previous problems during pregnancy and delivery. The MW also stated that some women do not come because they have strong belief in the supernatural and related protective effects (traditional medicines). Older women and mothers of young women propagate mistrust of ANC (by a MW) in the younger women.

### ***MW beliefs about who women consult for ANC***

The women either consult the MW at the clinics MW, the *dukuns* or no-one at all. A significant number of women do not consult at the clinic. Women often consult *dukuns* to check the baby is in a good position for easy delivery. The *dukuns* massage the abdomen with walnut oil or tree bark or give traditional medicine (to drink). Sometimes *dukuns* are said to actively deter mothers from consulting MW, telling them they are not experienced (that they haven't had children themselves or that they haven't delivered many children), telling them that the MWs lie and telling them they will have to pay a lot for transport if they are referred because the MW detects a problem.

### ***MW beliefs about why women in Timor Leste prefer to deliver at home***

Many factors contribute to women's preference for home delivery in Timor Leste. The traditional way that women deliver requires that they pull on/hold onto a rope (suspended from the roof) in order to give them strength to push. The husband or another assistant often pushes his/her knee into the woman's back, again to assist labour. At home women can kneel on the floor or lie on the ground to deliver and they can move around freely, rather than being forced to lie on a bed. They can begin to push when they feel the need. At home they can prepare wood, fire and hot water and they can wash when and how they like. Women often deliver in a special traditional birthing house.

In short, they can follow tradition, they can have more control, more choice and more comforts at home. Additionally, there is often an expectation from in-laws for women to deliver at home because that is how they themselves delivered.

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<sup>14</sup> MW mention that the women have a very poor understanding of fertility

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The MWs also believe that the following factors about the HF deter women from delivering at the HF. Many HFs are too far from women's homes and are thus too expensive to access (transport). Some HF lack equipment or even water and electricity. Many of the deterrents to ANC equally affect women's preference for place of delivery. Women, particularly primiparous women and older women, are too shy/embarrassed to deliver in HF. At home they can cover their bodies and they are not exposed in front of many strangers, particularly men. Others are embarrassed by their poverty – because they don't have belongings to bring to care for themselves and their baby (soap, clothes etc). Other women fear episiotomy, fear being “treated like animals” by the HF staff, fear having to pay for care and fear that MWs may spread bad stories about them. Again, as for ANC, some women believe they cannot afford the time (needed for preparations and for delivery) to deliver in a HF. There is no-one else available to care for other children while the mother is away. Importantly, many women have less trust in the MW than in their family and, sadly, some women fear they will die if they deliver in a hospital.

### ***MW beliefs about why some women in Timor Leste deliver alone***

The frequency of women known to be delivering alone varied by district. In Ermera the MW know some women who have delivered alone, in Liquisa all MW knew of women who had delivered alone, in Aileu it is also common practice but in Manatutu the MW felt it was a rare practice. The MWs believe women deliver alone because they are being brave and courageous, because they are very shy or because they are very experienced in childbirth. The MWs said that if a woman dies in childbirth after having delivered alone it is not attributed to having done something risky but rather to a problem with “adat” (custom), to a curse or to the fact that they haven't fulfilled their marital obligation (belis) or price for a woman.

### ***MW comments about their practice in assisting at home deliveries***

*Occurrence:* All MWs except those from Manatutu town said they assisted deliveries at home; many only/very often assist deliveries at home. The MW from Manatutu town said that though they are sometimes asked to assist at home they are not supposed to do so and thus cannot. They also said they do not want to be in the position of being faced with dealing with complications in women's homes.

*Time/distance for home deliveries:* The MW were all asked how far they would/do travel to assist a home delivery. The furthest a MW said she would travel was a distance some 3-4 hours from the facility. The majority of the MWs said the maximum travel time for them was much shorter, namely an hour/hour and a half. In each district MWs quoted examples of times when they had had to travel far and had had to stay overnight to help a woman. It was difficult to gauge the frequency of these occurrences but they seemed like exceptions rather than common occurrences. Most of the MWs who assist with home deliveries said they most commonly walk to the women's homes. This of course limits the reasonable distance a MW can/would go. In each FGD some cited examples of times when they had used other modes of travel – horses, bikes, motorbikes – but these seemed to be rare occurrences. In Liquisa the MWs said that if they are called to a home that is “too far away” then they send the ambulance to collect the patient and bring them to the HF. A general consensus was that the terrain in Timor generally does not suit any mode of transport other than walking. One MW stated that communities were sometimes reluctant to use transport to assist one of their women get to a HF.

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### ***MW beliefs about who families choose as birth attendants***

Most MW stated that the majority of births are attended by families (parents/in-laws) or *dukuns* though in Manatutu the MW think they are now the preferred attendants. The Liquisa MW commented that now that *dukuns* are no longer being trained (as they were in Indonesian times) that the community was increasingly using MW. Another general consensus was that MW are often not called if access is difficult and/or if the labour was progressing normally. When they call for help from a MW the call is often very delayed (when the problem is very advanced). Common problems that MW are called to assist with include retained placenta or bleeding.

### ***MW beliefs about barriers to having a SBA at delivery***

Some of the barriers to having a MW at delivery are similar to the barriers to ANC. These include difficult geographic access – especially at night (*dukuns* are closer), lack of transport, fear, shyness, lack of permission from relatives, a lack of trust in MW and HF and a preference for *dukuns*. Often, even if a MW is called, she will arrive late because the distance is so great. The MW said that *dukuns* often spread rumours that they will have to pay the MW a lot to assist the delivery. They also commented that they would use MW/HF if it was tied to receiving some incentive - eg mosquito net, soap or baby clothes.

### ***MW comments on their contact and relationships with dukuns***

All the MWs knew of *dukuns* in their districts but there was a lot of variability in the degree of activity and in the range of activities that they were involved in between districts. In some areas (eg Aileu town) there is no longer an active *dukun* (died recently). Liquisa has 1 in every succo. *Dukuns* in more remote areas, understandably, appear to be much more active than those in areas closer to HF.

Some HF supply *dukuns* with gloves but none admitted to giving them medicine<sup>15</sup>. Some MWs assist *dukuns* with deliveries or show them other technical things, like how to deliver the placenta. *Dukuns* in some areas facilitate the health system by asking the families to report home births to the HF or, otherwise, the *dukun* gives reports directly to the HF themselves. Other *dukuns* encourage families to deliver with the MW, encourage ANC attendance, clinic use etc. In one area the *dukun* had joined the MW for a breastfeeding counselling course.

MWs report both good and bad/difficult relationships with *dukuns*. Some cited examples of misadventures such as frankly dangerous practices and some fatal complications. Some report upset between the *dukun* and the MW when the family has called both to assist. Some suggested this upsets the *dukun* because he/she is not reimbursed if the MW actually assists the delivery. The relationships sounded to generally be better – perhaps because they have to be – in more remote areas. There are both male and female *dukuns*.

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<sup>15</sup> In Indonesian times the *dukuns* were trained and the MW used to give them supplies to ensure clean delivery practice.

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### **Other points from the discussions about delivery practices**

Although many MWs delivered their own children in HF, some delivered at home.

All groups of MWs suggested a need for more health education in order to motivate the women of Timor Leste to change their health practices for the better. They suggested it was important to include young people – school students; the literate ones in the family; police and teachers and to involve village chiefs and husbands (ask them to come to ANC). In Ermera the MWs suggested we develop a theatre/drama on the continuum of ANC-delivery-postpartum care. They suggested this would be likely to attract both older and younger people and was a good method of health promotion. Others suggested involving the church as a likely effective means of health promotion.

The MWs were all aware of traditional medicines being used to assist delivery but they were all uncertain of what these medicines contained or were made from and what specific purpose they were used for.

### **Common cultural traditions for postpartum mothers**

**Seclusion:** Many women do not go out of the house for a month after delivery. After a week they can go out of the room but still have to stay within the confines of the house – some stay inside for up to 3 months. If they go out early the fear is that the wind will touch them (*anin kona*) and the mother (and baby) will get sick. The wind can cause abdominal swelling or headache. More importantly, if they go out *ran mutin sae ulun* (white blood will come out of the head – seems to mean some form of craziness/delirium/fit – can also get dizzy, cough, diarrhoea).

**“Hot” traditions +/- the use of fire:** The women cannot leave the fire for a month – they have to stay/sit near/with their back to the fire. They sleep above the fire – on a *hadak* (low bamboo bed) – sometimes they even burn! Often the kitchen of the house is used for this purpose – so they live/sleep in the kitchen throughout this time. If they don't sleep by the fire – if they get cold – they risk *ran mutin sae ulun*. The women have to drink hot water only/or drink it twice daily. They cannot drink cold water – if they do then they will “always be pregnant” (this seems to correspond to the other hot traditions which are meant to facilitate old blood coming out after delivery; if any clots remain inside the woman then she will become pregnant again). If the woman touches cold water she can get sick *ran mutin sae* and the breastmilk will be cold and the mother (and perhaps also the baby) will become thin and pale.

The women have to wash in hot water – to clean the dirty blood inside the “stomach”. They have to douse their sheets in hot water and others “throw” the sheets at/to the mother (*tohik* the hot water). Washing like this is important to removing the clots. It is also to prevent the baby getting sick/diarrhoea. Hot water is put on the belly to get rid of clots inside – they feel a big uterus and think it is a blood clot and try to get it out. If the women don't follow the hot water tradition the wind comes and makes them sick. The women wear a lot of warm/heavy clothes (jumpers, socks, scarves etc). Any cooking or washing the mother does has to be with hot water and any food she eats must be hot.

**Washing traditions:** Postpartum women cannot wash their hair before 40 days postpartum or otherwise *ran mutin sae*. They have to wash themselves in boiling/hot

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water (*be manas*) – the mother washes herself as soon as the baby is washed – with freshly boiled water.

*Clothing traditions:* The women wear a jacket to stay warm and to keep the wind away. Her head is wrapped and she must wear socks. The chest/breast is sponged with cotton to make the milk good.

*Rest traditions:* The mother must rest and take care of herself – body, food intake, breastfeeding and personal hygiene (*isin tuur ahi fatin/labarik nian dalan*). Sometimes the women break the tradition of rest if there is no one to help with the chores. As an example, one of the midwives spoke of herself – if she had lived with family (who could help) she would have followed this tradition more closely. Women do not work in the home after birth – the husband and mother-in-law must do their work for them. The family must support them. They cannot wash clothes. They must just rest/sleep and care for baby. The women must sleep lying flat on their back – the uterus has to go back to its place; if they roll the uterus will move and you can bleed. The women sleep on the hadak (not the bed or mattress) for a month (mother and baby).

*Food prohibitions (patahan):* The postpartum women cannot eat salt – if they do then the cord doesn't dry/it remains weeping. They cannot eat sardines, or the baby will get skin problems and the breastmilk will be smelly. They cannot eat vegetables, fish or cassava in Ermera and in Aileu they could not eat rice, papaya or banana because the breastmilk will be cold. If they eat fish the baby will cough. They cannot eat garlic. In Manatutu the belief is that if they eat chicken/goat meat they can develop epilepsy.

*Food rules:* The women have to drink tua-manas (palm wine) for 40 days after birth. They must eat only chicken stew 40 days and sosoro (caldo). Boiled corn/mixed with beans is good for the breastmilk.

The practices/restrictions hold for 40 days. After 40 days the “dirty blood” (*ran foer*)/bleeding will have stopped. Some practice these traditions for longer - up to 3 months.

### **Postpartum traditions for babies**

*Seclusion:* The baby cannot leave the house – people fear the wind touching them – if the wind touches them they will get sick – rhinitis/cough. They must be closely wrapped if they go out (*falo metin*). While they are inside the windows must be kept closed. Wind makes the breastmilk cold and then the baby will burp all the time. IN addition, the sun must not touch the baby.

*Traditions with the cord:* The cord is often cut with bamboo – using a knife, razor or unsterile scissors. Then the cord is put amongst the bamboo trees. Betel nut (juice – after chewing it) might be put on the cord; or tree leaves, bamboo leaves or tree bark scrapings to help it dry. Some put nothing on the cord but when it bleeds the mother or father warm their finger in the fire and put them on the cord to stop the bleeding. Some wipe a piece of bamboo on the umbilicus – that makes the baby smart and stops them from crying a lot. Some wrap the cord in cotton. Some keep the cord. After the cord is cut then the tradition is to wait for the placenta to deliver. The baby waits on mother's legs/on the palm mat (*biti*) whilst wait for the placenta

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whether/not the cord has been cut. The baby might be lying in a dirty/bloody area. Some wrap the baby while they wait or hold and feed it. Some *dukuns* do not tie the cord after cutting it.

*Washing:* People often wait for the placenta to deliver before they wash the baby +/- cut the cord. Sometimes this will be several days. Some wash the baby immediately. The baby is washed with mixed hot/cold (warm) water. The baby is washed before being breastfed. The grandmother washes the baby. If the placenta is not delivered they might splash water on the mother's legs – the baby is lying on the legs. The water the baby is washed with often has traditional medicines mixed in it – *ai-tahan* and *ai-kulit*. If the baby has red skin at birth this stops it getting worse.

*Warmth:* The baby mustn't get cold. He/she must sleep by the fire. His/her head will be covered and he/she will be wrapped in a blanket. If not he/she will "*shoke*" (something sudden and bad will happen).

*Other traditions:*

*Fase matan ceremony:-* on the 1<sup>st</sup>, 3<sup>rd</sup>, 4<sup>th</sup> or 7<sup>th</sup> day postpartum the woman and the family wash their eyes, and the baby's eyes, with water or coconut milk at a ceremony at 6am (before sunrise). Then they eat fried corn, fried spinach, everything from the garden. In the future the baby will know its culture and will not have "*matan mahlolo*" (cloudy vision). People bring gifts – cigarettes, betelnut, cake, clothes.

If baby delivered after long period of infertility (*anak maha*) then there is a celebration and gifts of tais (traditional cloth) and gold from the family.

If the baby is sick the mother will chew betel nut and blow on the baby to make it better. If sick with fever, they wrap the baby to take for help. Traditional medicine leaves on the baby's head are meant to bring down fever.

### ***Postpartum traditions for breastfeeding***

*Starting breastfeeding:* Women often do not breastfeed for up to 3 days until the "white milk" comes out. They believe that colostrum is not good for the baby – that it makes the baby sick with stomach ache – that the yellow milk is dirty – and they throw it away. The baby is often not fed until the placenta is delivered. Some feed the baby even though the cord not yet cut. Many give boiled water and sugar to wash the stomach and to remove the blood clots for 3-4 hours after delivery, until the baby burps.

*Duration of breastfeeding:* Some breastfeed for up to 4 years. They will not breastfeed when they are pregnant with another – they think it means the next baby will not grow – has to keep the vitamins for herself – otherwise bad impact on her health.

*Other:* Some only give breastmilk and no other food for a year. Some give the baby to another lactating woman in lieu of own milk. If a baby doesn't feed well they don't force it – they think it means the grandmother's spirit is angry and they change the baby's name – give it the grandmother's name and then it will feed well.

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### ***Postpartum traditions for placentas***

Commonly the mother will just wait for a retained placenta to deliver or wait a long time to get help. If the placenta doesn't deliver (*sidauk moris*) some "use a bottle and blow the bottle." Some tie the cord of the undelivered placenta to the mother's leg, to a table or to a bottle – for fear it will go back inside.

The placenta is buried soon after the birth. Some bury it in the house; others outside – in kitchen with needles/thread so the girl will know her work; boys with pencils and balls. Some put the things the midwife helped to deliver the baby (gloves, etc.) with the placenta – so then the girl baby will become a nurse. Others bury with sugar, salt, books, pens and paper, betel nut so the child will be clever at school. Some wrap it in grass. Some put the placenta in a tin can with ashes on top of it and bury it or put in high up in a tree.

If you throw away the placenta the baby will cry a lot or be stupid. If the baby cries some people go to the place the placenta is buried and put uncooked rice or corn on top of it – to stop the baby crying. If the baby has a fever some will pour water on the burial site.

### ***MWs knowledge of newborn resuscitation – a list of the different things the MWs cited that they do to a newborn after he/she is born and when he/she does not initiate breathing***

- Hit/flick/slap the legs
- Tip baby upside down 2-3 times
- Rub the chest/baby
- Put on mothers belly and rub
- Do it all a few times
- Wait and the baby will breathe
- Splash cold water on baby
- Hot or cold water to baby's chest
- Wash/clean the baby or the head
- Mouth to mouth (*hatama is*) – learnt this in Indo times in Dili – only some have experience – seems very occasional
- Suction the mucous from mouth and nose – syringe – wipe with finger – with baby upside down
- Fix/position the airway
- Wrap because cold sometimes – wrap next to hot water bottle
- Dry
- Ask doctor to help or send to hospital

Generally MWs were very unfamiliar with the resuscitation process beyond the initial steps of drying and rubbing the baby. Very few admitted any experience with babies who had been asphyxiated. None had been trained in the use of Ambu bag/mask ventilation or other resuscitation techniques.

### ***MW practices: home visits for sick newborns – when do women call them?***

Sometimes MWs are called to people's homes to see the baby if there is a serious problem like a convulsions. Sometimes they are called for feeding problems – babies burping, not feeding – or if the cord doesn't separate/ smells, if there is a problem with urine, abdominal swelling or not passing stool.

## **ANNEX 2B: Baseline Health Facility Assessment**

The MWs say that tradition affects care seeking for the newborn: some will not go out at all until after the *fase matan* ceremony even if the baby is sick. They will opt for traditional medicine instead. Those who do not follow tradition so closely can/will go to the clinic.

### ***MW beliefs about barriers to postpartum checks within a week of delivery***

There is no cultural problem with health staff visiting the (mother and) baby at home. Several MW said they do home based postpartum checks in the first week after delivery.

They said that time (workload at the clinic) and access (how close the woman lived to the clinic) were important in determining whether/not they could do this. If they are busy then the mothers must come to them. It seems only those who live close to the clinic get home visits postpartum.

The MW say that some mothers who deliver in a HF commonly bring their baby back for immunisation – usually at a month of age. Some HF vaccinate on the day of delivery. Others bring their baby back if it is sick or crying a lot. The MW believe culture is a major impediment to mothers seeking care for their babies after birth – they cannot leave the home – if the mother is still bleeding she cannot go out.

The MW feel there is little understanding of the need to come for a postpartum check. If the baby has no problem or if in the past they have not had problems with other children they do not go for check or call midwife. It is rare for mothers to spontaneously come for a check postpartum.

At a postpartum check the MW say they give baby eye drops if they have any but they don't give home immunisations.

### ***Other miscellaneous points***

Some very educated Timorese still follow traditional practice – even the midwives. Many follow at least some of the practices – the MWs all agreed that if you don't follow the hot water tradition you feel sick. The reasons some of the MW give for not following the traditions are because either they know the correct thing to do or because they do not live with others to help them. They also said though that if they do follow tradition, how can they expect that the mothers won't?

Another significant issue with provision of care is that families commonly refuse referral even after a MW has recommended it.

## **Conclusions**

These findings from the MW FGD have been used, together with the results of the community based FGD and other qualitative studies, to inform the main body of the detailed implementation plan (DIP) for the maternal/newborn care program. The specific implications and recommendations relating to the information presented above can be found in the DIP and are not reiterated here.

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## ANNEX 2B: Baseline Health Facility Assessment

### Annex 1: List of QUESTIONS for the FGD MIDWIVES

#### Antenatal Care

- According to our tradition/culture what kinds of things should woman do during pregnancy?
- According to our tradition/culture are there any kinds of things a woman should not do during pregnancy?
  - Probe: Are there certain types of foods or drinks she should avoid? Why? Exercise/work?
- (In your experience, when do women come in for their first prenatal visit?)
  - Follow-up: (if the first visit is delayed): Why do women wait so long?
- What prevents some pregnant women from seeking ANC?
- Would a woman need to consult someone else before seeking ANC? If so, who?

#### Delivery Care

- Why do women most often deliver at home instead of at the health center?
- In your area do you know of any women who have delivered their babies alone; by this I mean that there was absolutely No-ONE with them at the time they gave birth?
  - If yes, why do you think some women deliver alone?
- Do you assist women to deliver in their homes?
  - Follow-up: (if yes): What is the furthest (minutes/hours) you have traveled to assist with a birth in the home? Will you travel at night to assist with a birth?
- Who most often assists women deliver their babies in their homes? Why?
- What might prevent a woman from seeking assistance from a midwife for delivery?
- Do you know the TBAs in your district?
  - If yes, what sort of relationship do you have with them?

#### Postpartum and Newborn Care

- It is generally recommended that both women and newborn babies have a check-up within a week of delivery. We understand that cultural traditions in East Timor make it difficult for many women to come to the clinic for this check-up.
  - What do you think would be an acceptable way for women to have contact with midwives for a check for themselves and their babies after delivery?
- Following birth what are the common traditional practices that women follow – for themselves?
  - Probe: Foods/drink that should be avoided?
    - Sitting Fire?
    - Stay indoors?
    - Avoids cold water/bathing?
    - Avoid work?

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- Probe: Following responses, ask why this tradition is practiced and for how long.
- What are the common traditional practices for newly born babies?
  - Probe: Will the newborn be put to the breast before the placenta is delivered?
    - If no, why not?
    - Bathing the baby?
  - Probe: Following responses, ask why this tradition is practiced and for how long.
- Specifically are there any traditional practices about breastfeeding newborn babies?
  - Probe: Following responses, ask why this tradition is practiced and for how long.
- Are there any common traditional practices for the placentas?
  - Probe: Following responses, ask why this tradition is practiced and for how long.
- When you attend a delivery, what do you do if the baby is does not cry/breathe after birth?
- Do women ever call you to their homes to see a sick baby?
  - Probe: (if yes): What sort of problems have you been called for?

## **ANNEX 2C: A Qualitative Community Assessment in Aileu and Manatuto Districts Preliminary Report April 2005**

### **INTRODUCTION**

This paper presents the results of a qualitative community assessment in two districts in Timor Leste conducted during the month of February 2005. Health Alliance International working in partnership with the Timor Leste Ministry of Health began a four-year program in October 2004 to strengthen maternal and newborn care in the country. The initial four focus districts for this new program are Aileu, Manatuto, Ermera and Liquica of the Central Region. During the third and fourth program years there will be expansion to three new districts. The baseline community assessment was conducted in the districts of Aileu and Manatuto.

### **PURPOSE OF THE ASSESSMENT**

The community assessment was motivated by several factors. First, while there are recent comprehensive quantitative data available regarding pregnancy, delivery, postpartum and newborn care, there is a dearth of qualitative data exploring these issues. Program staff felt a qualitative community assessment would help to describe and contextualize the recently collected quantitative data. Second, by asking communities about their experiences, preferences, practices and perceived problems it will inform and help direct program strategies and activities for already identified objectives. Moreover, data from the qualitative assessment will bring into focus potential new objectives for maternal and newborn care by illuminating relevant local variation in knowledge, beliefs, practices and care seeking behavior related to maternal and newborn care. Lastly, there are many local and international organizations working in Timor Leste on issues related to health. By going out into the community, program staff can identify opportunities for programmatic cooperation with other groups and organizations. Additionally, the qualitative assessment served as a vehicle for an early introduction for program staff into the communities in which they will be working.

### **ASSESSMENT FOCUS**

Questions were developed regarding pregnancy, delivery, postpartum and newborn care in the following thematic areas:

1. Where are all the places in this community that women can go for care during pregnancy, delivery and the postpartum period? What are the normal kinds of care women seek?
2. Who is the best care provider or specialist to see for help during each of these periods? To whom do mothers go for care of sick newborns?
3. What do women do at home to ensure a healthy pregnancy, delivery, and postpartum period?
4. What do mothers and caregivers do to take care of newborns?
5. What are the problems/sicknesses of pregnant, birthing and postpartum women? What are the causes of each of these problems/sicknesses and what is the response to or treatment for each of these problems/sicknesses? Who is the best care provider or specialist to see for help with each of these problems/sicknesses?
6. What are the problems/sicknesses of newborns? What is the cause of each of these problems/sicknesses and what is the response to or treatment of these problem/sicknesses?

7. What do you call the above-specified problems/sicknesses in the local language?
8. Who makes the decisions about women's health seeking during pregnancy, delivery, the postpartum period and for newborn care? Who most influences what women do during pregnancy, delivery, postpartum and for the care of newborns?
9. What are the barriers to seeking and receiving the care that is needed or desired by pregnant, birthing, postpartum women and newborns?
10. What are traditional practices and beliefs around pregnancy, delivery, postpartum and newborn care?

## ASSESSMENT SITES

The community assessments were conducted in the districts of Aileu and Manatuto. In each district, there were four assessment sites for a total of eight. The selection of the different locations represent an effort to capture urban versus rural variances. The four types of sites were:

- District town (urban) with community health center
- Sub-district town (urban) with community health center
- Rural village with health post
- Rural village with no health post

Typically, the qualitative assessment team would spend four days at each location collecting data. At each site an initial community meeting was held among community leaders and other interested individuals to introduce the program and the team and to discuss the purpose of the assessment. After a preliminary analysis of the data, the team returned to the districts to present the findings and to undertake preliminary district planning activities in maternal and newborn care.

## METHODS

The community assessment design and the instruments used were developed in consultation with an anthropologist experienced in rapid assessment procedures. A mix of qualitative methods was utilized among four targeted groups: community leaders, women/mothers, men/fathers and *dukuns*, or traditional birth attendants. None of the focus groups or interviews were tape recorded out of concern that it would create reluctance on the part of the participants to fully engage. The team relied on detailed note taking most often with two members of the team recording the same session. The methods employed were:

- **Focus group discussions** were held separately among mothers, fathers and community leaders. There were a total of 18 focus groups carried out, six groups among community leaders, five groups among men/fathers and seven groups among women/mothers.
- **Semi-structured key participant interviews** were conducted with 10 *dukuns*, or traditional birth attendants and two community leaders.
- **Semi-structured household interviews** were conducted with 34 mothers.

## ASSESSMENT TEAM

The qualitative assessment team consisted of six Timorese men and 4 Timorese women having some experience of community development or health work. Their initial training consisted of both in-classroom and field exercises. The course was designed and conducted by an expatriate

anthropologist residing in Dili. The week-long training covered basic principles of ethnographic research including interviewing, facilitating focus group discussions, community mapping, participant observation, note taking and recording data.

## **LIMITATIONS**

This qualitative community assessment utilized a rapid assessment approach carried out in a one-month period of time in two of the 13 districts of Timor Leste. This assessment is by no means an exhaustive investigation into the knowledge, beliefs, practices and perceived problems related to pregnancy, delivery, postpartum and newborn care. While there were similarities within and between sites, there were also differences. Therefore, findings in this assessment should not be taken out of context and generalized broadly across the country.

Members of the qualitative assessment team had very little if any previous experience with qualitative methods and at times their lack of experience influenced the degree to which in-depth information from participants could be attained, or adequate detail in note taking achieved so that valuable data were not lost. In addition, at some assessment sites, particularly the rural village sites, there existed a broad disparity between the largely subsistence farming-based lives of the participants in villages where rates of illiteracy are high and the urban-based lives of the educated assessment team, which could have influenced the comfort level and candor of the participants and thus, the quality of the data collected.

## **PRELIMINARY FINDINGS AND IMPLICATIONS**

The findings from the various methods that were employed and across assessment locations are presented here. When significant variances were apparent between assessment locations or targeted groups they are noted; otherwise data are presented in aggregate form. Data for pregnancy, delivery care, postpartum and newborn care are reported separately.

### **Pregnancy**

#### **1. Women tend to understand the importance of antenatal care and will go for care when it is reasonably accessible.**

##### **1.1 Findings**

- Most of the mothers interviewed reported receiving antenatal care (ANC) from a midwife during their pregnancy. Exceptions were one older mother who had given birth to 13 children and never received ANC and women from one rural assessment site with no health post who reported that the travel distance to the clinic was either too far or too expensive to negotiate.
- Mothers frequently report a desire to “. . . *be healthy for myself and my baby*” or “. . . *to help both my baby’s body and my body*” as reasons for seeking ANC. They also often reported the positive benefits of ANC as receiving immunizations and vitamins and having the position of the baby checked.
- Although some women interviewed report they are involved in making the decision to seek ANC, the majority of women reported that their husbands and families/parents are key decision makers on issues related to pregnancy.

- Midwives from several areas report improved attendance for antenatal care following a Ministry of Health-sponsored Safe Motherhood campaign in November 2004.

## 1.2 *Implications*

- Women need clear tangible benefits from getting ANC. A care package that includes a bednet, iron pills, tetanus toxoid injections, if indicated a blood test for anemia, checking the baby's position, taking the mother's blood pressure, an opportunity for questions, and discussing danger signs of pregnancy should all be key elements of this package.
- In order to increase ANC coverage in the rural areas it is imperative that well equipped mobile clinics staffed by a midwife travel to rural villages for regular and scheduled outreach to conduct ANC.
- Mothers understand the benefits to themselves and their babies about maintaining a healthy body during pregnancy. Community health promotion messages that educate regarding **all** the benefits of ANC such as, promoting how iron strengthens the blood and vitamins help to create a healthy body for mothers and babies, the danger signs of pregnancy etc., should be developed and disseminated at the community level.
- Community health promotion messages should target not only mothers, but also fathers and other family members because they are often the key decision makers in families.

## 2. **Many women seek care from *dukuns*, or traditional birth attendants and take traditional medicines during pregnancy while also seeking clinic-based ANC.**

### 2.1 *Findings*

- Women frequently reported that upon discovering that they were pregnant, they would first consult a *dukun*, or traditional birth attendant. It was more common for women living in remote rural areas to consult a *dukun* as opposed to women living in sub-district or district towns.
- *Dukuns*, as the frontline of care for many women, often provide good messages, such as “*vitamins make the blood strong*” and “. . .*you must eat good food* [during pregnancy].
- Care services offered by the *dukun* are traditional herbal-based medicines, such as a tea called *ai tahan* and massage for the abdomen with coconut oil.
- Both mothers and *dukuns* reported that some *dukuns* refer women to the clinic not only if there were problems but also for routine ANC.
- Traditional medicines during pregnancy are “*common knowledge*” among women and practiced in many areas.
- There is secrecy surrounding the content of some of the traditional medicines that are specific to different *dukuns*.

### 2.2 *Implications*

- It would be useful to know more about the content of the traditional medicines women take during pregnancy that are deeply embedded in traditional practices and beliefs to assess whether they are beneficial, neutral, or harmful. This awareness should be used to help women understand that there are other practices to maintain and improve their health during pregnancy.
- *Dukuns*, or traditional birth attendants, are respected members of communities that are frequently called upon for assistance during pregnancy. Opportunities for cooperation

between *dukuns* and midwives where *dukuns* could be the community voice of support for ANC and healthy practices during pregnancy should be explored.

## **Delivery**

- 1. Despite relatively high percentages of women understanding the value of and seeking antenatal care, there is little understanding of the value of a skilled birth attendant during delivery. There is a common understanding that the midwife should be called only if problems arise during delivery or in the postpartum period.**

### **1.1 Findings**

- Most of the 34 women interviewed gave birth with only the assistance of a family member, *dukun* or in some cases with no one at all. Some women who received delivery care by a midwife were referred to the hospital because of problems, and it is unclear whether if their pregnancy/labor would have been normal they would have sought the care of a midwife.
- There is widespread belief that giving birth is a such a commonplace occurrence that it does not require the assistance of midwife. The following quote from a focus group discussion among fathers captures a common attitude expressed among all the targeted groups, “*They [mothers] are used to delivering themselves at home and don’t need a midwife unless there is a problem,*” and in the words of a mother, “*I don’t really think about calling the midwife to assist with my deliveries.*”
- Fathers play a very active role in helping to prepare for the birth of their child and assuring a good outcome.
- Hemorrhage is understood to be a major and serious complication of delivery that can lead to death.
- There do not seem to be financial barriers to having a skilled birth attendant assist with the delivery. Most families reported they were only obligated to share food and drink.
- If a problem arises, such as delay in the delivery of the placenta, there are often attempts to get the assistance of a midwife; however, frequently there is a delay in initiating this action, and/or the midwife is unavailable or lives too far away.

### **1.2 Implications**

- Develop key messages that provide very specific reasons regarding the benefits of having a skilled birth attendant at delivery. These messages could include the unpredictability of when complications will occur, the need for immediate assistance if they do occur (thus no time to call a midwife given travel time), the benefit of the midwife being able to administer medicines such as oxytocin to reduce the chance of hemorrhage. These messages need to be disseminated through radio, print media, theater, community meetings at the community level.
- Develop health promotion messages on the topics mentioned above that particularly target fathers and their responsibility to assure a good delivery outcome for their wife and child.
- Explore the potential to develop a pilot program to support the midwives to attend more home deliveries through securing transportation and/or incentives for the number of home births they attend.

- Establish more cooperative relationships between midwives and *dukuns* (in communities where they are present). The valuable role of the *dukun* in providing support during pregnancy and delivery needs to be acknowledged.
- Promote the establishment of an emergency obstetric plan as part of the ANC visit and work with community leaders to plan a feasible emergency transport plan.

## 2. There is a strong preference for a home delivery and many negatives associated with giving birth at the clinic facility.

### 2.1 Findings

- Mothers, fathers and community leaders give many reasons for the strong preference for home deliveries:
  - Frequently mentioned by all targeted groups is that women are “*shy*” (modest) and do not want to be exposed, and that there is no private space at the clinic.
  - There is no water or the ability to heat water at the clinic to accommodate the practice of applying hot compresses to the mother’s abdomen after birth (believing this aids in the delivery of the placenta) and washing of both mother and baby following delivery.
  - The clinic environment is not supportive of the preferred upright position of women during delivery often with the support of a rope (over roof beams), a post or a family member.
  - There is a strong belief that women and babies need to lay close to a fire immediately following birth to protect their health and well-being, which is not an option in the clinic setting.
  - Clinics are largely inaccessible to a woman once labor has begun and it is difficult to estimate the time of delivery in order to plan ahead (travel to clinic)
  - Several participants cited reluctance to go to the clinic for fear the mother would need to be transported to Dili hospital due to an emergency and that if she dies in Dili it is difficult and very expensive to get the body home for burial.
  - It is not their custom or traditional practice to deliver at the clinic
  - Traveling to the clinic at night if a woman should go into labor is a deterrent because it is considered unsafe to be out at night (*bad spirits*) or they fear that the clinic won’t be staffed with a midwife if they do make the journey.

### 2.2 Implications

- The clinic setting needs to be made much more hospitable to women and families as a delivery point if more institutional deliveries are to be successfully encouraged. It is imperative that a private room without uncurtained windows is available in which to deliver where family members are welcome. Hot water must be available during and after delivery. Family members need to be allowed to make decisions regarding delivery position and to assist the mother in customary ways.

- This information will assist to inform the current plans to build maternal waiting homes throughout the country. A home-like atmosphere with private rooms and hot water will be key features to assure success and utilization of maternal waiting home.
- A sensitive and consistent way of assisting families to transport the bodies of family members who have died at a health facility must be developed. Until solutions are found, it will be difficult to increase appropriate utilization of health services for any serious problem.

## **Postpartum**

### **1. The practice of postpartum care provided by a midwife or nurse is uncommon; however the concept and practice of caring for mothers following delivery is strong within Timorese communities.**

#### **1.1 Findings**

- There is a strong belief in avoidance of contact with cold air or wind and that cold water will cause harm to the mother following delivering, such as causing her breastmilk to become cold, or *ran mutin sai ulun*, an illness associated with the postpartum period described as a craziness or delirium.
- There are longstanding traditional practices around caring for postpartum women: they must drink hot drinks such as *tua manas* (to get rid of “dirty blood”), eating hot foods, hot compresses to their body (helps to get “dirty blood” out of the body), they must only wash in hot water, they should not wash their hair and they must bundle up in warm clothes. There is a strong belief that if mothers do not follow these practices they will become sick. The length of time these practices must be followed varies but it is typically 40 days to three months.
- Postpartum seclusion, the traditional practice of ‘sitting fire’ where mothers and babies lie next to an open fire for a period of several days to several months is prevalent in many areas. This practice is reported to be very important to assuring the health and wellbeing of both mother and baby. The length of time a mother must “sit fire” varies from one week, one month to three months. The practice of ‘sitting fire’ is more prominent in rural areas as compared to more urban settings.
- Fathers and other family members are actively involved in caring for the postpartum mother with collecting wood, keeping the fire going, boiling water and cooking. It was reported that fathers often would make a trip to the clinic to get medicine for a postpartum women.

#### **1.2 Implications**

- As with antenatal care, clear benefits to the mother for getting specific postpartum care need to be promoted at the community level. The provision of Vitamin A for the mother to “build her up” after the delivery is an example of such an incentive. Health promotion messages that acknowledge the existing priority of families providing care for postpartum women but also include messages about the danger signs during the postpartum period and appropriate responses should be developed. A key emphasis should be that if fever, bleeding or unusual pain should occur that even if a woman is “sitting fire” she must seek medical treatment immediately.

- There is no systematic practice of providing women with postpartum care within the current health system. Training for midwives to enhance knowledge of postpartum care should be conducted and pathways to support the provision of care explored within the health system and within communities.
- WHO recommends postpartum care at 6 hours, 6 days and 6 weeks. Having a skilled birth attendant at delivery would facilitate the early postpartum check. The traditional naming/washing of the eyes ceremony, *fase matan* at 3-7 days of age, could be promoted as a time that both the mother and the baby gets a checkup. Since traditionally the birth attendant is invited to this event, it could be another ‘sanctioned’ activity for the midwife.
- Just as fathers have an important role during the delivery, they should be involved in the education and outreach efforts to increase postpartum care.

## **Newborn Care**

### **1. Mothers and fathers have incomplete understanding of signs of newborn illness. Even if recognized it is often ascribed to supernatural (or social) causes, so there is likely to be a delay in the recognition of the need to seek medical attention.**

#### **1.1 Findings**

- Mothers, fathers, community leaders and *dukuns* reported some appropriate signs of a sick newborn. A sick newborn is described as not moving well, doesn’t cry, having mucous in their nose, being too small, having a fever, not passing urine, or having hot urine. There are many other signs such as poor color, lethargy, jaundice, seizures, fast/difficult breathing, swollen belly, rashes, and cold extremities that parents need to recognize; other symptoms such as nasal congestion and ‘hot urine’ need to be understood as normal in healthy newborns.
- Morbidity and mortality of newborns is commonly ascribed to supernatural or social causes which could negatively impact the timing of seeking appropriate medical attention. Sometimes reasons for illness or death are outside of the sphere of control such as, “*God called them back.*” Other times illness and death are understood to be caused by the action of the mother such as, “*Baby dies because mother goes out walking at night,*” or “*Baby dies because mothers do not look after themselves such as drinking cold water, eating cold fruit and then breastfeeding baby [with cold milk].*” Also bad relations within families can be perceived as causing newborn illness and death, “*Some babies die quickly after birth because the treatment the mother received is not good and also because of bad words (problems) in the family. . .*”
- The *fase matan*, or naming/washing of the eyes ceremony, commonly performed within 3-7 days following birth is believed to protect the vision of the baby (and attending guests), but often to more generally protect their overall health and future well being.

#### **1.2 Implications**

- A concerted effort is needed to educate communities about the newborn period, including how to provide improved home care, how to recognize signs of serious illness in newborns, and the need for swift medical attention for specific problems.

All these elements of newborn care need to be emphasized in health promotion messages at the community level.

- As with postpartum care, the traditional *fase matan* ceremony provides an opportunity for skilled medical providers to conduct a newborn checkup within a few days after birth.
- Health education materials that clearly describe and promote the benefits of postpartum care and check for the baby needs to be develop and health staff and volunteers trained. Since the inclusion of Hepatitis B vaccine is planned in the near future, this could be used as a part of the package offered to attract mothers to bring there their newborns for postpartum care.

## **2. Breastfeeding is nearly universal; however, discarding the colostrum and offering sugar water to newborns are common practices.**

### **1.1 Findings**

- All of the women interviewed reported breastfeeding their babies and in focus groups with community leaders and fathers it is appears that breastfeeding in Timor Leste is nearly universal.
- Half the mothers interviewed reported immediate breastfeeding after delivery. The other half reported offering sugar water to the newborn “*until the milk came in.*” In addition to the provision of sugar water the newborn was often given to a female family member to breastfeed for 3 days to one week before the mother’s milk came in.
- The common reasons given for not feeding the infant colostrum were that it is ‘dirty’ and might make the newborn sick.

### **1.2 Implications**

- The benefits to the newborn of feeding colostrum immediately after birth needs to be very specifically promoted at the community level. Perhaps a new message about the vitamins in the colostrum, which causes its different color, would be useful. At the clinic level, educating mothers during the ANC visit regarding the benefits of feeding colostrum should be added.
- Exclusive breastfeeding needs further emphasis and culturally relevant messages need to be developed and disseminated at the community level.

## **CONCLUSIONS AND RECOMMENDATIONS**

The community baseline assessment presented the project team with an early introduction into several communities in which they will be working over the next four years. While the rapid assessment approach is by no means an exhaustive exploration into the knowledge, beliefs, practices and perceived problems of community members related to maternal and newborn care, it has illuminated some commonly held beliefs and culturally-bound practices that will enhance the ability of the project team to develop successful strategies in the intervention areas.

### ***Recommendations: Pregnancy***

- Using creative approaches that employ theater group dramas, radio and video, develop and disseminate community health promotion messages that build on women’s and families’ desire to assure a safe and health pregnancy through education of the “package” of benefits of ANC, including exam, knowing the danger signs of pregnancy, tetanus toxoid immunization, bednet, and iron tablets.
- Work with MOH staff in program districts to assure the availability and the delivery of the “package” of ANC services and provide training and supervision of midwives.
- Explore the possibility of creating more formal collaboration between midwives and *dukuns*, particularly in the rural areas, to promote safe motherhood practices.
- Work with MOH staff to establish consistent mobile clinics offering ANC visits in rural areas.
- Include fathers in education and outreach efforts to promote healthy pregnancies and birth planning.

***Recommendations: Delivery Care***

- Using creative approaches that employ theater group dramas, radio and video, develop and disseminate community health promotion messages that highlight the need for a skilled birth attendant to assist with delivery.
- Work with community leaders and authorities on developing birth plans and emergency referral plans
- In collaboration with the MOH, pilot “birth-friendly” health facilities offering delivery rooms that ensure privacy and where safe cultural practices can be incorporated. Make available to the woman in labor especially important needs such as hot water and allow active support from family members.
- Explore the possibilities of encouraging midwives to attend home births by securing transportation and offering incentives such as time off compensation for attendance of off-hour deliveries.

***Recommendations: Postpartum and Newborn Care***

- Using creative approaches that employ theater group dramas, radio and video, develop and disseminate community health promotion messages that highlight the need for a postpartum and newborn care visit.
- Explore the possibility of incorporating a PPC and NBC visit with the common cultural practice of the naming/washing of the eyes ceremony--*fase matan*.
- Provide training for midwives to improve knowledge and skills in postpartum and newborn care.
- Assure that fathers are fully involved in promoting early postpartum and newborn care.
- Develop and disseminate at the community level culturally relevant messages regarding the importance of exclusive breastfeeding for the first six months and the benefits of colostrum. Colostrum might be promoted as “full of vitamins” to explain its different color and consistency compared to regular breast milk

ANNEX 3

MEMORANDUM OF UNDERSTANDING BETWEEN MINISTRY OF HEALTH AND  
HEALTH ALLIANCE INTERNATIONAL (HAI) TO IMPROVE MATERNAL AND  
NEWBORN CARE PROGRAMME IN TIMOR-LESTE

This Memorandum of Understanding is:

Made the 9<sup>th</sup> Bay of November 2004, between the Ministry of Health (MoH) of the Democratic Republic of Timor-Leste (RDTL) (Party 1) and Health Alliance International (HAI) (Party 2);

Intended to define the roles of the parties involved in the MOH/HAI maternal and newborn care (MNC) program; and

To be reviewed annually in association with the annual planning process of the MOH and HAI.

Roles:

On September 30, 2004, HAI was awarded a four-year cooperative agreement with the Global Bureau of USAID to support the East Timor Ministry of Health (MOH) to strengthen its national program to improve maternal and newborn care (MNC). The roles of the parties hereto in the Maternal and Newborn Care program shall be as set out hereunder:

#### Ministry of Health

1. In keeping with its role as provider of comprehensive health services to the population of Timor-Leste, shall have overall responsibility for the program to improve maternal and newborn care in Timor-Leste.
2. Shall ensure that all MNC materials and activities are in accordance with Timor-Leste's national priorities and reproductive health strategy.
3. Shall coordinate and facilitate the full participation of suitable interested health service providers.
4. Shall assure the full participation in MNC activities of the district health management teams (DHMTs) in program districts
5. Shall assure that established processes are used in recruitment and supervision of HAI employed MCH district program officers who will be involved as members of the district health management teams in program implementation
6. Shall approve the program's detailed implementation plan and annual work plans
7. Shall reserve the right to renegotiate the terms of this MOU with any or all of the parties concerned at any time during the period of validity of the MOU.
8. Supports the exemption from all importation and Government taxes in accordance with Government rules and regulations, for all equipment and supplies directly related to project activities.

#### Health Alliance International

1. Shall work closely with the MOH and other partners in planning, implementing, and evaluating activities of the MNC program, as set forth in the program proposal, the detailed implementation plan, and subsequent work plans.
2. Shall hire suitable national staff where possible for program and support positions, and shall be committed to training and capacity-building for national staff
3. Shall provide technical support as needed to national and expatriate program staff — TTT^fc Shall conduct an assessment of factors^ire^ly'""t^a:tM\*5^? - m^fer-n'aIra' practices, and use that information in planning and conducting program activities

#### Annex 4: Program personnel and relationships

<b>Position</b>	<b>No.</b>	<b>Main Responsibilities: HAI (HQ)</b>	<b>% Effort</b>	<b>Remuneration</b>
Main Program Backstop	1	Responsible for orientation of staff to the project and technical and managerial oversight of the project. Will also provide monitoring and evaluation oversight. Will make at least two on site visits per year. (Mary Anne Mercer)	48 p-mos, 15% FTE	HAI; 100%
Other CS HQ Technical Support	1	Responsible for supporting field staff in developing community activities; coordinating program reports; researching technical materials. (Susan Thompson)	48 p-mos, 40% FTE	HAI; 100%
HQ Accountant	1	Responsible for supervising field accounting as a part of regular headquarters fiscal oversight. (Peg Riehle)	48 p-mos; 10% FTE	HAI; 100%
<b>Position</b>	<b>No.</b>	<b>Main Responsibilities: HAI Field Staff</b>	<b>% Effort</b>	<b>Remuneration</b>
Program Manager	1	Responsible for program administration and overall management. Requires extensive experience in public health and health program management, including operations research methods and financial management. Needs to be able to write detailed program reports and represent program in meetings with MOH, external donors, other agencies. Relates directly to the MOH's MCH unit head. (Nadine Hoekman)	48 p-mos; 100%	HAI; 100%
Health Promotion Coordinator	1	Responsible for coordinating district-level health promotion activities jointly with MOH Health Promotion Department, in collaboration with the district program health officer. Will coordinate assessment and preparation of health education materials. Requires experience in health promotion, preferably related to maternal and newborn care. Relates to MOH's Health Promotion Head. (Teda Littik).	48 p-mos; 100%	HAI; 100%
MCH Technical Advisor	1	Serves as primary technical advisor to the program and the MOH for the development, implementation and evaluation of maternal/newborn care approaches and interventions, with particular responsibility for newborn care activities. Coordinates development of training materials and supports development of operations research activities in relevant areas. (Ingrid Bucens)	24 p-mos; 100%; 24 p-mos 50%	HAI; 100%
Program Assistants	2	Will assist the program manager and health promotion coordinator in carrying out field visits and assuring health promotion activities (Eva da Silva Lopes and Paolo de Vasconcelos).	3 x 48 p-mos; 100%	HAI; 100%

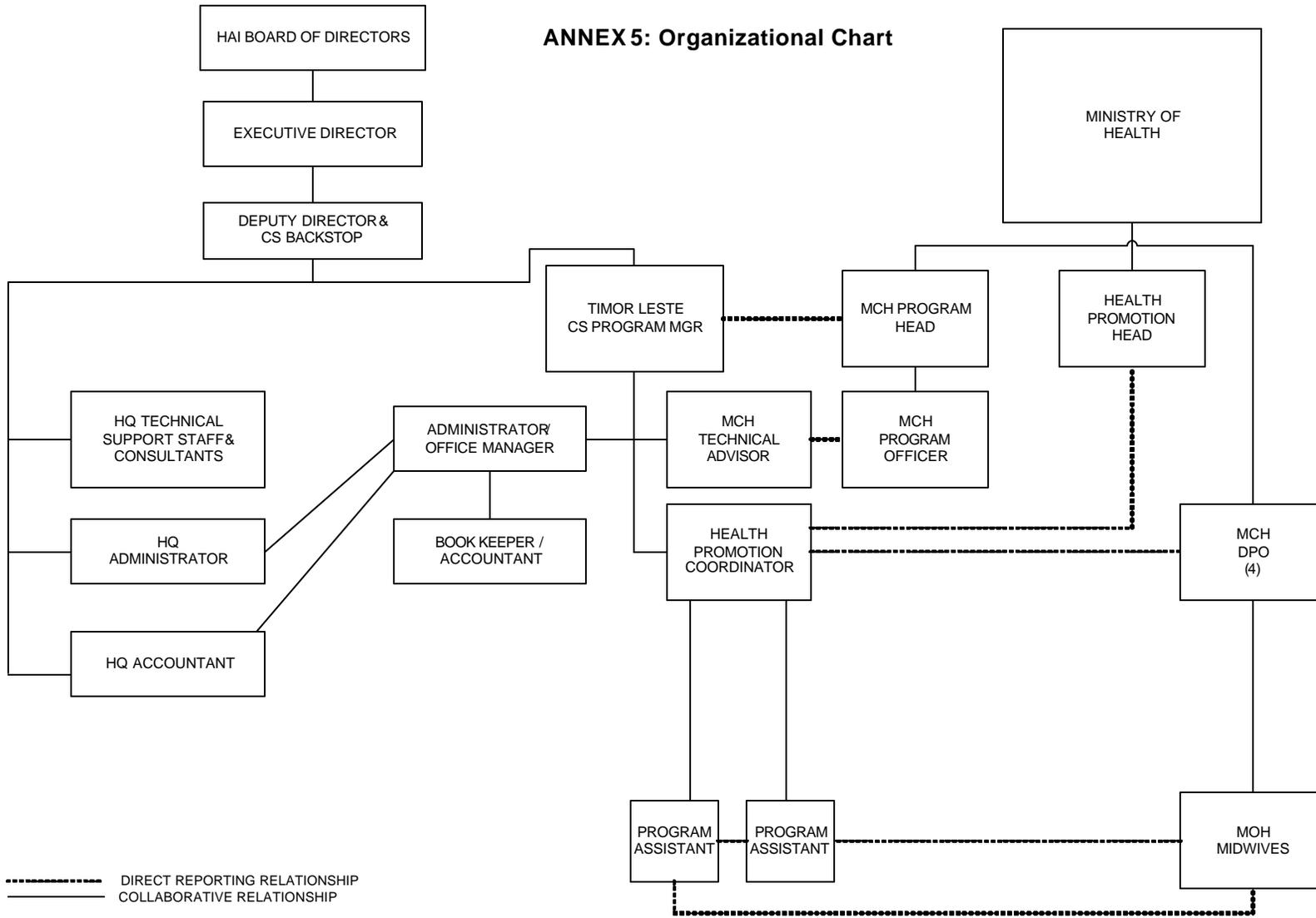
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<b>Position</b>	<b>No.</b>	<b>Main Responsibilities: HAI Field Staff (continued)</b>	<b>% Effort</b>	<b>Remuneration</b>
Administrator/ Office Manager	1	Responsible for procurement, management of staff and payroll, financial reporting, administrative reports, vehicle scheduling/ maintenance/repair, and other administrative functions as needed. Requires strong organizational skills and personnel and fiscal management experience. (Celio Marques Alves)	48 p-mos; 100%	HAI; 100%
Bookkeeper/ Accountant	1	Responsible for program financial management. Requires relevant training and experience in accounting and financial management, preferably in the management of USAID or other bilateral donor grants. (Emalita Guterres da Cruz)	48 p-mos; 50%	HAI; 100%
<b>Position</b>	<b>No.</b>	<b>Main Responsibilities: MOH Staff*</b>	<b>% Effort on MNC</b>	<b>Remuneration</b>
		*Paid by MOH only, at MOH salary levels with, in some cases, expenses covered by the program for special activities. The HAI program will not impose many new duties but will mainly strengthen the performance of existing duties. Each position listed is an existing position within the MOH.		
MCH Program Head	1	Main MOH liaison with HAI program. Responsibilities include co-development of program activities and oversight of activities of the MOH staff involved in the project.	Approx .25% FTE	MOH; 100%
MCH Program Officer	1	The MCH department staff member who has direct links with program activities and assists the MCH Program Head.	Approx .25% FTE	MOH; 100%
Health Promotion Head	1	The duties for person in this position, who is the principal counterpart for the Health Promotion Coordinator, include health promotion activities at the community level, such as assistance with the development and implementation of community education and motivation activities.	Approx .20% FTE	MOH; 100%
Trainers, NCHET	1	The MOH's National Center for Health Education and Training organizes and provides training for the nation's health staff. Will conduct postpartum and newborn care training.	Approx .20% FTE	MOH; 100%
District Program Officers	Phase I: 4 Phase II: 3	The district program officers are midwives with some managerial experience/expertise who work with the district health management team to coordinate program activities at the district level, particularly community health promotion. They visit health facilities, make sub-district and village visits, meet with local collaborating groups including traditional leaders, conduct training in MNC promotion, disseminate materials, and monitor the implementation of activities. (Timorese)	46 p-mos; 100%	HAI to MOH; 100%

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<b>Position</b>	<b>No.</b>	<b>Main Responsibilities: MOH Staff (continued)</b>	<b>% Effort</b>	<b>Remuneration</b>
MOH Midwives	104	MOH midwives will be trained and provided follow up support and supervision in the program's main clinical interventions, antenatal and newborn/postnatal care. There are currently 104 midwives in the central region, paid entirely by the MOH. All work full-time, and will devote an estimated 60% of their time providing maternal and newborn care services (in addition to child health activities). They provide antenatal/postnatal care, delivery services, and infant and sick child care. All will be trained in management of complicated deliveries, and some engage in health promotion activities with clinic patients.	Approx 60% FTE	MOH; 100%
District Health Management Teams	7	The District Health Management Teams will be asked to participate in district-level planning for deployment and follow up of health staff, community health promotion activities, and will be asked to participate in operations research projects as appropriate.	Approx 10% FTE	MOH; 100%
<b>Position</b>	<b>No.</b>	<b>Main Responsibilities: Community Partners</b>	<b>% Effort</b>	<b>Remuneration</b>
Community Partners and partner groups	tbd	Volunteers from community groups will take part in community health promotion activities related to maternal and newborn care. They include traditional chiefs and subchiefs, members of women's groups (many of which are organized at the district level), interested traditional healers, village health promoters, interested community members who were formerly health promoters (known as <i>kaders</i> during Indonesian times), members of religious groups, and others including local and international NGOs. The government has recently decided to support training of community volunteers in health promotion, and they will be included when that program is operational. In all cases their own desires to serve and the respect and status accorded volunteers by the community will be their main incentives. The time they devote to the program will vary immensely based on program activities in place.	Variable	None
Teachers	tbd	Responsible for student and parent education and community health promotion activities, using MOH school health curriculum and program materials/messages.	Variable	None
PCVs	8-10	Responsible for gathering qualitative baseline data, and working with counterparts to provide community education and motivation around key MNC messages and approaches.	20%	None

### ANNEX 5: Organizational Chart



### Annex 6. Rapid CATCH Indicators

No.	Rapid CATCH Indicator	Numerator	Denominator	Percent	Confidence Interval
1.	% of children 0-23 who are underweight	103	440	23.4	+/- 6.0%
2.	% of children 0-23 who were born at least 24 months after the previous surviving child	268	443	60.5	+/- 8.6%
3.	% of children 0-23 whose births were attended by a skilled health personnel	70	448	15.6	+/- 5.0%
4.	% of mothers with children 0-23 who received at least 2 tetanus toxoid injections before birth	166	399	48.8	+/- 8.0%
5.	% of children 0-5 months who were exclusively breastfed during last 24 hours	77	268	28.7	+/- 8.4%
6.	% of children 6-9 months who received breast milk and complementary foods during last 24 hours	44	56	78.6	+/- 25.6%
7.	% of children 12-23 months who are fully vaccinated	-	-	-	-
8.	% of children age 12-23 who received measles vaccine	63	173	36.4	+/- 11.5%
9.	% of children age 0-23 who slept under an insecticide treated net (in malaria risk areas) the previous night	16	433	3.7	+/- 2.5%
10.	% of mothers with children 0-23 who cite at least two known ways of reducing risk of HIV infection	35	631	5.5	+/- 2.6%
11.	% of mothers with children 0-23 who report that they wash their hands with soap/ash before food prep.	430	461	93.3	+/- 9.1%
12.	% of mothers of children 0-23 who know at least 2 signs of childhood illness that indicate the need for treatment	260	433	60.0	+/- 8.6%

13.	% of sick children 0-23 who received increased fluids and continued feeding during an illness in the past two weeks	4	38	10.5	+/- 14.2%
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**Annex 7: Strengthening Maternal and Newborn Care in Timor Leste Programmatic Intervention Levels**

	<b>Health Policy Level</b> Central MoH	<b>Health System Level</b> District/Facility	<b>Community Level</b> Community groups, NGOs
<b>Antenatal Care</b>	<ul style="list-style-type: none"> <li>• Provide input on policies:               <ul style="list-style-type: none"> <li>- Maternal malaria</li> <li>- Maternal waiting homes</li> <li>- Involving TBAs in MNC</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Develop and conduct communication and counseling skills training in ANC for midwives               <ul style="list-style-type: none"> <li>- Develop materials/hire consultant</li> <li>- Training of trainers (TOT)</li> <li>- Training and followup</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Develop and conduct training in danger signs of pregnancy, birth planning, value of ANC, and the ‘package’ of benefits provided with ANC visits (exam, tetanus toxoid, bednet, iron tablets etc)</li> </ul>
<b>Delivery Care</b>	<ul style="list-style-type: none"> <li>• Explore the possibility of incentives for midwives assisting with home deliveries</li> </ul>	<ul style="list-style-type: none"> <li>• Pilot birth-friendly health facility in conjunction with community (incorporate cultural practices where not contraindicated)</li> </ul>	<ul style="list-style-type: none"> <li>• Work with community leaders, authorities, on developing emergency referral plans, use of waiting homes</li> <li>• Develop and conduct training on need for skilled birth attendant, addressing cultural practices</li> </ul>
<b>Postpartum and Newborn Care (PPC/NBC)</b>	<ul style="list-style-type: none"> <li>• Provide input for the development of PPC and NBC policy</li> <li>• Provide input on recommendations for infant Hepatitis B vaccination</li> <li>• Provide input on recommendations for policy development re MTCT of HIV/AIDS</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and conduct training for midwives and nurses in PPC/NBC               <ul style="list-style-type: none"> <li>- Develop materials</li> <li>- Conduct TOT</li> <li>- Training and followup</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Develop health promotion materials for use in the communities</li> <li>• Develop and conduct training in need for PPC and NBC, addressing cultural practices</li> </ul>
<b>Cross Cutting Activities</b>  Cross-cutting activities (continued)	<ul style="list-style-type: none"> <li>• Participate as an active member of the Maternal and Child Health Working Group</li> <li>• Assist with the development of an integrated supervision tool for MNC at the facility level</li> <li>• Support the development of systems for collecting information re: maternal and neonatal deaths</li> <li>• Review and discuss cultural practices relevant to MNC, and use of that information in refining health services</li> <li>• Review available HP materials for MNC; identify gaps; procure</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and conduct MCH DPO training</li> <li>• Provide supervision and technical support for MCH DPOs</li> <li>• Develop a reporting format for MCH DPOs</li> <li>• Provide motorbikes to MCH DPOs and plan for utilization with DHMT – i.e driving lessons vs. having a driver</li> <li>• Training of MCH DPOs re: death audits (maternal and newborn)</li> <li>• Ensure essential equipment for MNC available at HF through use of MCH-DPO supervision tool. Facilitate procurement of equipment if</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss and plan specific community level HP activities with existing groups or volunteers (possibly <i>dukuns</i>)</li> <li>• Support training of family health promoters (where MOH initiated)</li> <li>• Work with churches as to how they can be involved in disseminating various messages (priest, catechists, nuns re: pre-marriage counseling)</li> <li>• Evaluate effectiveness of community health promotion messages/methods</li> <li>• Train relevant parties in identifying/reporting maternal and infant deaths (district administrators, religious leaders, village authorities and traditional chiefs)</li> </ul>

**Annex 7: Strengthening Maternal and Newborn Care in Timor Leste Programmatic Intervention Levels**

	<p>or develop materials to fill the gaps</p> <ul style="list-style-type: none"> <li>• Develop street theater production and/or film on MNC for use in communities:             <ul style="list-style-type: none"> <li>- secure funding</li> <li>- identify key MNC messages</li> <li>- contract theatre group</li> <li>- identify production company</li> <li>- produce, revise dramas</li> <li>- deploy presentation/film</li> </ul> </li> <li>• Collaborate with school health promotion staff to identify possible health promotion messages to be included in primary and secondary school curriculum</li> </ul>	<p>unavailable</p> <ul style="list-style-type: none"> <li>• Pilot systems for improved health service delivery in ANC/PPC/HP             <ul style="list-style-type: none"> <li>- home visits for PPC/NBC</li> <li>- outreach HP activities</li> </ul> </li> <li>• Increase HP activities at HF (individual counseling, interactive group presentations)</li> </ul>	<ul style="list-style-type: none"> <li>• Pilot systems for improved health service delivery in ANC/PPC/HP             <ul style="list-style-type: none"> <li>- system for identification of pregnant women / notification to HF</li> <li>- buddy system for accompanying patients to HF</li> <li>- pilot use of <i>fase matan</i> ceremony as opportunity for PPC/NBC</li> </ul> </li> </ul>
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**Annex 8: Communications Outline for MNC Program, Timor Leste**

<b>Audience</b>	<b>Behavior</b>	<b>Key Factors</b>	<b>Interventions</b>
<i>In order to help:</i>	<i>To:</i>	<i>We will focus on these factors:</i>	<i>Using these approaches:</i>
1) All pregnant women	1) Have at least two antenatal care visits	1a) Improving access to antenatal services 1b) Improving quality of antenatal services 1c) helping mothers understand specific benefits of the care (tetanus toxoid immunization, an insecticide-treated bednet, iron tablets)	1a) Increase provision of antenatal care during ‘mobile clinic’ visits 1b) Refresher training and focused supervision on providing standardized antenatal care package including counseling and communication skills 1c) Train community members and groups in key messages re: benefits antenatal care, care during pregnancy incl. nutrition
2) All pregnant women	2) Plan for and utilize a skilled attendant at birth	2a) Improving access to skilled birth attendants for home deliveries 2b) improving the cultural acceptability of facility deliveries	2a) Test pilot efforts of incentives to encourage midwives to conduct more home deliveries 2b) Intensive discussions of midwife attitudes during refresher trainings and supervision visits 2b) Working with health facilities and maternal waiting homes to test the acceptability of ‘birth-friendly’ facilities where cultural practices can be maintained

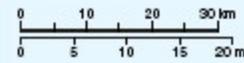
**Annex 8: Communications Outline for MNC Program, Timor Leste**

Audience	Behavior	Key Factors	Interventions
<p>3) All newly delivered women and their newborns</p> <p>4) All postpartum women and their infants</p>	<p>3) Begin exclusive breastfeeding immediately after delivery, including feeding of colostrum</p> <p>4) Have a postpartum check and newborn care check within 5 days of delivery, or sooner if signs of newborn illness or maternal complications</p>	<p>3a) increasing knowledge about the benefits of colostrum and the benefits of immediate breastfeeding to the postpartum mother (reducing chance of hemorrhage)</p> <p>3b) promoting an understanding that colostrum is the “first vaccine” and emphasizing that its yellowish color indicates high vitamin/nutritional content</p> <p>3c) addressing cultural beliefs about dangers of colostrum</p> <p>4a) assuring that all MOH midwives are skilled in promoting and providing postpartum and newborn care services.</p> <p>4b) promoting community understanding of benefits, need for postpartum and newborn checks (postpartum vitamin A for mothers)</p> <p>4c) encouraging modifications in cultural practice of ‘sitting fire’ and postpartum seclusion, making use of <i>fase matan</i> practice</p>	<p>3a) Training community members and groups to promote immediate breastfeeding postpartum</p> <p>3b) Enlisting the support of traditional birth attendants and other influential village leaders</p> <p>3c) Assuring that immediate and exclusive breastfeeding is included as a key message in antenatal care</p> <p>3d) Collaborate with Alola Foundation to assure that health facilities consistently promote exclusive breastfeeding</p> <p>4a) providing training and followup supervision for all MOH midwives in integrated postpartum and newborn care</p> <p>4b) training community members and groups in the role of postpartum and newborn care in preventing maternal and newborn deaths.</p> <p>4c) working with community leaders to promote the <i>fase matan</i> newborn ceremony as a time for newborn and postpartum checks</p>



# TIMOR-LESTE

- ⊕ National capital
- ⊙ District seat
- Town, village
- ✈ Airport
- International boundary
- District boundary
- Road



**Program Disticts**

**PHASE I** - Circlcd  
(Aileu, Ermera, Liquica, Manatuto)

**PHASE II** - Boxed  
(Ainaro, Dili, Manufahi)



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

### **District Coordinator for Mother & Child Health**

Under the supervision of the District Health Manager, the candidate will undergo following tasks:

1. Candidate for this position will be function as coordinator for Mother and Child Health in District level. She/he will work together with DHMT in coordination line, work plan development and conduct the implementation of following activities for Mother and Child Health :
  - Maternal Health (Pregnancy Consultation, Safe Delivery, New Born Child, Post Natal Treatment /Nifas Period)
  - Child/Infant Health (Neonatal Consultation, IMCI, Preschool and teenager reproductive health)
  - Family Plan (Youth, Productive ages couple/family, Information, Access)
  - Immunization (Baby and infants/under five year old)
  - Nutrition (pregnant mother, exclusive milk, Vitamin A, monitor the growing period of children under five year of ages, nutrition education)
2. Working together with DHMT to decide the target groups in accordance to number of total population and program implementation plan.
3. Undertake supervision to Sanitary Center/CHC and Sanitary Post/HP minimum once in three months to observe the implementation, monitoring and evaluation to all programs within the district's scope of services.
4. Conduct coordination meeting with midwives in work place minimum once in three months to review the work plan, implementation and program evaluation.-----
5. Coordinate with NGOs which are working in health sector particularly Health Communication, information, education program.
6. Compile monthly reports from CHC and compile all of the District reports and submit to national level every three months. Develop a program graphic (program achievement in quarterly, six monthly and annually)
7. She/he will work together with DPHO nutrition and DPHO Promotion in planning, implementation and evaluation of the nutrition and promotion program.

**Qualification:**

Midwives  
Work experience in Mother & Child Health administration  
Experience working with community & community groups  
Adequate management and supervision skill  
Experience as a trainer to health worker  
Good personality and interpersonal skills and or communication skills

**Working experience:**

Midwifery experience: working as mid wife in health facility for a minimum of 8 years 1.

**Salary level:**

Level IV or depend on the district decision for the mutation/movement of a midwife from a district health facility to the DPHO SMI position with!;, the district.

## ANNEX 11: Potential Collaborating Groups in Program Districts

NGO/GROUP	ACTIVITIES	LOCATION	POSSIBLE AREAS OF COLLABORATION	Comments
Timor Aid	Training of volunteers (83 or 108) in ANC, FP	Aileu 4 subdistricts	Use same volunteers and provide training re: PPC Link into DHMT for supervision or accountability	No supervision since training in Sept 2004
CCT	Mobile clinic  Fixed and Mobile  Clinics, will be placing a staff person responsible for HP in all fixed clinics	Based in Ainaro but do MC in Aileu district also (Raimera, Sarlala, Fatubolu)  Ermera District	Provision of ANC doing PPC. Staff could join our training  Pilot of community projects  This person could receive HP training if we conduct, could be a link between CHWs and clinic, supervise and support volunteers	
Uma Ita Nian (Catholic Clinic)	Fixed and weekly MC, do ANC in clinic, not all MCs They have 43 health motivators	Aileu, in Liquidoie and Aileu town	Encourage ANC at all MC, add PPC to MCs; ?Use waiting home as a pilot project Train health motivators in PPC	They may be involved in Maternity waiting home eventually
Pradet Mental Health	Postnatal depression (? Not exactly sure what they do	Aileu	Encourage links between MCH DPHO and HFs and the NGO	Need to find out exactly what they do
AMI, Portugal	Curative services - MC	Aileu (Sarlala, Fatuk-hun, Talitu,	? explore adding ANC and PPC to services provided	

		Turiskai, Remapati, Quintal Portugal, Selo Kraik, Asirimau		
CCF	CHWs who focus on nutrition and ANC promotion	Manatuto District (Rembor, Lacluvar, Cribas, Carui, Sananin  Liquica District (?exact locations)  Ermera (? Locations0	Use same CHWs for PPC – CBPPC or HP	
Pastoral da Crianças	Volunteers who work with community leaders and families (in groups of 20) do home visits, work with MOH when they visit	Manatuto District Laclubar, Laleia, MTT	Use same groups for HP PPC, community based PPC  Use in notification of health events	
Alola Foundation	Mothers Support Groups (5 families/mother) Have video about BF, collaborate with HF and helped with Vit A distribution	MTT town  Maubara and Liquica town(7)  Ermera (13)	Work with these groups to identify pregnant women, assure they are going for ANC and PPC, CBPPC, support BF, assist to provide some supervision/support through MCH DPHO	In reality not very active at all in MTT
PLAN International	Environ health HP	Aileu District		
World Vision	82 volunteers from 11 sucos trained in	Aileu District (Selo Malere, Selo kraik,	Volunteers (if active) could be involved in HP – train in PPC, link	

	malaria prevention and better use of indigenous foods	Aisirimou, Saboria, Fahikia, Suco Liurai, Bandudatu, Marusa, Lauusi, Sarin, Lahae)	with health system	
Health Net	Distribution of mosquito nets to ANC pts through HF	Aileu All HF's	Encourage distribution during MCs	
Youth group	Radio in local dialect, Support BF mothers HIV education, (11 trained youth  Not sure what they do but have expressed interest in collaborating	Liquica ( in 23 sucos)  Manatuto	Assist them to develop messages re: ANC and PPC, ?drama  Assist them to develop messages re: ANC and PPC, ?drama, education	
Peace Corps	Bockary: Youth group and young adults trained in giving health promotion messages, theatre  Joel Youth group – theatre – HP  Cudjoe	Liquica  Gleno, Ermera District  Aileu town	Train them in ANC or PPC messages  Train them in ANC or PPC messages  Identify weaknesses and assist with developing DHMT skills if needed	Proposal for video camera to promote best practices

	Therese	Manatuto	HP material devel.	
Australian youth ambassador	Developing computer skills of HF nurses	Ermera District	Collaborate re: HIS system development in Ermera	
Catholic Sisters Clinic PRR	Provide curative, ANC, IMCI	Maubara (suco Bogoro and Kaitelu, Liquica District	Train nurses in PPC	
Strome Foundation	Health Prom (approx. 7 people)	Liquica	Add PPC to their HP menu	
Women's Foundation	Health Promotion	Liquica	Add PPC to their HP menu	
SHARE	Health Promotion: training of community leaders and school teachers in 13 key messages and encouraging links between health system and these people Have also done some training of health facility staff	Ermera District	Add a message about PPC. Use same community leaders and teachers for training  Use current HP materials	
CARE	Food distribution IMCI, growth monitoring, nutrition program	2 subdistricts of Liquica	Coordinate health promotion sessions when people come from far-- ? provide ANC also	
OMT/OMPT	Varies as to how active	All districts	Use to participate in HP	

## ANNEX 12: ASMI Description

### **FY 2005 Procurement plan: USAID/East Timor/Improved Health Summary description of planned activities – Health SO**

#### ***Asistencia Integrado Saude Materno Infantil (AISMI) launched by BASICS and IMMUNIZATIONBasics for USAID/East Timor***

Two USAID projects, BASICS and IMMUNIZATIONbasics (IB), have joined forces to provide technical support to the Ministry of Health to extend effective, proven newborn and child health interventions throughout the country, in order to decrease infant and child mortality by 2008. Called Asistencia Integrado Saude Materno Infantil (AISMI), or Integrated Maternal and Child Health Project, the comprehensive approach is designed to address USAID's Special Health Objective -- in particular IR 3.1 increased use of key maternal and child health practices, and IR 3.2 increased use of effective interventions to reduce the threat of priority infectious diseases. Although AISMI will build capacity at all levels in the Ministry of Health, it will particularly focus on improving services at the sub-district and community levels. The core interventions of malaria prevention and treatment, nutrition/micronutrient care, pneumonia prevention and treatment, diarrhea prevention and treatment, essential newborn care, and immunizations for vaccine-preventable childhood diseases are consistent with the health priorities and the essential care package developed by the Ministry.

AISMI will work to strengthen and improve the delivery of these interventions through the existing MOH health facilities, in a way that ensures ownership, sustainability, and capacity building. In those communities with access to health facilities, AISMI will assist the MOH and NGO partners to strengthen essential preventive services such as immunization and malaria prevention, as well as clinical case management of common childhood illnesses, particularly addressing access, use and quality of services along a continuum of care from the household to the health facility. In each district and sub-district, AISMI will work with elected and informal leaders to utilize local health data for improved local planning and implementation of health services, to stimulate community involvement in health programs, and advocate for improved maternal and child health behavior.

AISMI's approach to supporting the MOH will:

- Strengthen and scale up delivery of a package of proven child health interventions through the formal health delivery system and at the community level.
- Improve technical effectiveness, efficiency, coverage and quality of preventive services and integrated management of childhood illnesses (IMCI) by community health workers or at primary health care facilities (posts, centers), whether public or private
- Increase community involvement and demand for preventive and curative services
- Emphasize adoption of health-promoting behaviors within families
- Strengthen the management and support systems required for effective delivery and sustainability of the package of child health interventions (whether delivered in the community or in facilities)
- Leverage internal and external resources to sustain improvement in health status

## Annex 13: First Meeting of the MCH Working Group

### First Meeting of Maternal and Child health working group 1<sup>st</sup> April 2005.

#### Agenda

1. Introduction
2. Identifying the TOR of the Working group
3. Maternal and Child Health Services in Timor Leste. Presentation by Ms Lidia Gomes.
4. Brief presentation by agencies and NOGs program carried out in the field of maternal and child health (based on form)
5. Existing policies under the Maternal and Child Health Department (presentation by program officers)
6. Health informational system: monthly indicators from the districts, referral hospitals and national hospital. Reporting and recording forms in the field of maternal and child cares.

#### FORM OF THE PRESENTATION BY AGENCIES AND NGOS

Name of organization:

Location (district)

Major activities in maternal and child health:

Family planning  
Safe motherhood  
ARH  
STI/HIV  
IMCI  
Nutrition  
Immunization

Partners

Year of implementation

Contact person

#### Suggested TOR of the Working group

1. To advise the Maternal and Child Health Department (MCHD) on maternal and child health policy and strategy development.
2. To advise and support the MCHD on implementing strategies within maternal and child health.
3. To advise the MCHD in content and organization of the national work plan in the field of maternal and child health.
4. To act as a forum for exchange of information between partners' pain and activities.
5. To receive and analyze maternal and child strategies implementation reports and provide recommendations on outstanding issues and concerns when requested.