Health Alliance International: Improving Maternal and Newborn Health in Timor Leste

FINAL EVALUATION REPORT

Project Location:
Seven Districts in the Democratic Republic of Timor-Leste:
Aileu, Ermera, Manatuto, Liquica, Manufahi, Ainaro and Dili

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A. Acronym List

ANC- Antenatal Care
BFF- Birth Friendly Facility
BPS- Basic Package of Services
CAMS-Centro-Audiovisual Max Stahl
CCT- Cooperativa Café Timor
CHC-Community Health Center
CHM- Community Health Motivators
CS- Child Survival
DHS-District Health Services
DIP-Detailed Implementation Plan
DPO- District Program Officer
DTT- District Training of Trainers
EMOC- Emergency Management of Obstetric Care
EONC-Emergency Obstetric and Neonatal Care
HAI- Health Alliance International
HMIS- Health Management Information Systems
IMCI- Integrated Management of Childhood Illnesses
LISIO- Livrado Saúde Inanfante hoet Onan (Mother and Child Health Book)
MCH-Maternal and Child Health
MOH-Ministry of Health
MOS-Ministero de Saúde
MWH- Maternity Waiting Home
NCHET- National Center for Health Education Training
NGO-Non-Governmental Organization
PMTCT-Prevention of Mother to Child Transmission
PPC-Postpartum Care
PSF- Promotor Saúde Familiar
Rapid CATCH- USAID/CORE Assessment Tool on Child Health
SISCa- Servisu Integrado Saude Communitario
TAIS- Timor-Leste Asisténcia Integrado Saúde (project of BASICS3)
UNFPA-United Nations Population Fund
USAID- United States Agency for International Development
UW-University of Washington
WHO-World Health Organization

B. MAP OF DISTRICTS SERVED BY HAI MATERNAL AND CHILD HEALTH PROJECT

C. EXECUTIVE SUMMARY

1. PROJECT DESCRIPTION, GOALS AND OBJECTIVES

HAI's project in Timor-Leste is a standard category child survival grant, implemented in partnership with the Ministry of Health. The project is integrated, combining efforts to improve overall maternal health (including child spacing) and newborn care. While the project has evolved in response to requests from the Ministry and changes in the Timor-Leste situation, overall the objectives remain the same. As stated in the Detailed Implementation Program (DIP), the program objectives are to:

- improve the health policy environment and ensure national policies reflect the most up-to-date research in antenatal care, delivery care and postpartum care,
- support cross-cutting areas such as information collection and supervision tools,
- expand the capacity of the district and health facility to deliver MCH services,
- improve selected behaviors among the community with a focus on the following goals:
  - 70% of pregnant women will receive antenatal care,
  - at least 30% of women will deliver with a skilled provider,
  - 45% of newborns will exclusively breast feed for six months.

2. MAIN ACCOMPLISHMENTS OF THE PROJECT

a. Highlights

The project has met or exceeded many of its primary objectives and in doing so has earned a widespread reputation for collaboration, flexibility and integrity. It is viewed as a trusted partner of the Ministry of Health and has entwined its technical assistance with the national program, thus ensuring that many of its models will be sustainable. Key improvements over 2003 DHS statistics for the initial four program districts include:

- Women receiving at least one antenatal care visit rose from 50% to 82%
- Women receiving at least two tetanus toxoid injections during their last pregnancy rose from 48% to 69%
- Skilled birth attendance increased from 16% to 37%
- Vitamin A intake post-partum rose from 28% to 49%
- Exclusive breast feeding for children 0-5 months of age rose from 29% to 68%

Most of these final survey findings exceed the original targets outlined in the DIP, indicative of how well overall the program met its objectives while responding to an ever changing set of challenges in Timor Leste.

HAI's technical assistance in the arena of Maternal and Newborn health is so widespread that they have contributed to every major initiative that has become a government program. This includes:

- Assisting the MOH in the creation and initiation of the new role and job description of the midwife MCH coordinator position at the district level;
- Contributing to the national working group on the development of key maternal health indicators;

- Developing the behavior change messages that were adapted nationally to promote newborn health and better birthing practices;
- Contributing to the revision of the midwifery standards in 2006 and invited participation in the planned revision of the national Reproductive health strategy;
- Modeling a Birth Friendly Facility (BFF) contributing to the government's assessment of the various models in use (including maternity waiting homes) which were most suitable for the Timor Leste setting;
- Developing tools for supervision that are used by the district health staff for supportive supervision and program monitoring;
- Supporting a master trainer for the *Promotor Saúde Familiar* (PSF) program. HAI also developed photo-cards promoting good practices which could be used in the PSF training. This is currently under review by the MOH;
- Assisting in the 2006 national assessment of the Safe Motherhood Training;
- Assisting in the 2008 national assessment for Emergency Obstetric Care which will shape district level programs over the next years;
- Contributing to the development of the national Reproductive Health BCC Strategy as well as to the Newborn section of the national Child Health BCC Strategy;
- Contributing to the development and introduction of the MOH Basic Service Package;
- Participating in MOH-led Health Sector Review and Planning Workshops at national as well as district level.

b. Summary of Impact Model Elements for Project

HAI/Timor-Leste Maternal and Newborn Care Impact Model

Inputs	Activities	Outputs	Outcome	Goal
Time with Minister of Health to establish MCH District Program officer position - Staff time - Transport to districts -Per diem funding for district travel -HAI contributed funds to MOH to facilitate the hiring of DPOS in 4 start-up districts	-Train District Program Officers -training needs assessment (for midwives) -health facility assessment -supervision visits -participation in national MCH working group -development of Basic Services Package (BSP) plan, monitoring tool -participation in rollout of BSP -provided district level refresher workshops on various aspects of safe motherhood	-MCH DPO position developed, filled, and functioning - Supervision checklist developed, accepted as national policy -DPOs with improved supervision and monitoring skills -MOH midwives with improved practices, skills - BSP policy, including monitoring tool, in place	90% of health facilities will have: -staff trained in ANC, newborn/postpartum care - systems in place to maintain essential supplies and materials for ANC and newborn/ postpartum care	Improved health and reduce mortality and morbidity for mothers and their infants in Timor-Leste.
-HQ and local staff time - Consultant time -Transport to districts - Per diems, funding for district travel -Matching funds for film costs, printing etc.	- Investigation of culturally-determined beliefs and practices re: pregnancy - Develop drama, films, photo cards, posters and radio spots on ANC, SBA, and PPC -Disseminate above materials -Train community-based groups, PSFs using film, photo cards, posters -Supporting	-Film, photo cards, posters, radio spots pro-moting ANC, SBA -Training manuals on the of HP materials and discussion guide to accompany film -Volunteers (PSFs) skilled to promote maternal care -Community women with	-70% of women will seek antenatal care (ANC) when pregnant -70% of women will receive at least two tetanus toxoid immunizations during pregnancy -30% of women will deliver with the assistance of a skilled birth attendant (SBA)	Improved pregnancy outcomes; Improved birth outcomes

	supervision visits with DPOs of district midwives	greater under-standing of the benefits of ANC and need for SBA		
-HQ and local staff time - Consultant time -Transport to districts - Per diems, funding for district travel -Matching funds for film costs, printing etc	- Investigation of culturally-determined beliefs and practices re: Postpartum and Newborn Care (PP/NBC)-Advocacy with the MOH on the importance of addressing/improving newborn care - Develop drama, films, photo cards, posters and radio spots on PP/NBC -Disseminate above materials -Training of PSFs, midwives in PP/NBC - Community education on value of postpartum and newborn care and improved practices including breastfeeding	-Film, photo cards, posters, radio spots pro-moting PP/NBC -Volunteers (PSFs) skilled to promote maternal care -Community women with greater under-standing of the benefits of postpartum and newborn care, improved practices	-60% of women will receive a vitamin A dose within two months after delivery -45% of infants ages 0-5 months will be exclusively breastfed -50% of mothers of infants will know three signs of serious newborn illness	Improved newborn health and reduced neonatal mortality

D. ASSESSMENT OF RESULTS AND IMPACT OF THE PROJECT

1. Results: Technical Approach

a. Project Overview

HAI was one of the few international NGOs to work in Timor-Leste both before and after the 1999 withdrawal by Indonesia. This project was designed and submitted to USAID for funding based on that early field experience. The goal of the project is to improve health and reduce mortality and morbidity for mothers and infants in Timor-Leste. This intervention reflects the national priority of the Ministry of Health and also the dismal demographic statistics of the country, which has the highest fertility rate in the world, a maternal mortality ratio of 660 per 100,000 and an infant mortality rate of 44 per 1,000 live births (UNICEF, 2006). The objectives for the project center on improving the MOH capacity to deliver appropriate care and include:

- 90% of facilities will have at least one staff member skilled in key elements of antenatal, postpartum and newborn care, and will have effective systems to maintain essential supplies and materials for that care
- 70% of women will receive at least one visit for antenatal care 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 will have high-dose vitamin A supplementation within eight weeks of delivery
- 45% of infants aged 0-5 months will be exclusively breast fed
- 50% of mothers of children less than one year of age will know at least three signs of newborn illness.

The project planned to work in seven out of the 13 districts of Timor-Leste. They have full activities in six districts, while the seventh, Dili District, has had very few direct inputs. However, because of HAI's collaboration with the Ministry of Health and significant input into national strategies, they have had a greater national impact than originally envisioned. The beneficiary population is approximately 100,000 women and children in the districts. An ancillary beneficiary population of approximately 25 people can be found among the small core of MOH health staff at the national and district level, and the national staff of HAI, all of whom have gained in technical competence and expertise because of this project and will continue on as national resources long after this project has ended.

The intervention mix combines community level health promotion activities and health system strengthening. The strategies have focused on training, behavior change, materials development, and community outreach. These strategies have been implemented under the overarching strategy of embedding all activities within the national framework and on the national implementation schedule. The project has also invested in human resource development and systems strengthening, with an emphasis on supervision and use of data for program decisions. It is important to realize that this pledge of strict collaboration with the MOH and linking all activities to the national framework has at times slowed down the implementation schedule. However, many of the strategic approaches have now been adopted as formal policy at the national level. The gain in sustainability more than offsets the occasional delay.

Cues from the national planning cycle dictate the phasing and sequencing of activities. For example, the mid-term review recommended stopping inputs into maternal-perinatal death audits, as this was not a priority for the MOH in 2006. However, at present the push for national vital registration impels a renewed interest in causes of death. Consequently, HAI has resumed their inputs into maternal and newborn death audits.

The delivery modality for activities has centered on integrating HAI efforts into the national plan. Thus, when the Minister of Health changed with the election in 2007, so did some of HAI's activities. For example, the new Minister has emphasized the need to get out to rural and isolated communities and has promoted the new program SISCa (Servisu Integrado Saude da Communitario). HAI responded and one of its key national staff now works directly with the MOH as a regional coordinator for the program.

Despite this being the final year of its initial four year cycle, the program is not closing. The project has a balance of unexpended funds (primarily due to disruptions in the schedule because of political events and cheaper contracting costs than anticipated) and has received a one year no-cost extension. In addition, HAI received a second grant from the USAID Mission for child-spacing activities which will be implemented at least to September 2010. The same HAI staff have been working on both its child-spacing and maternal and child health programs since the mid-term review, as they use an integrated approach. Since funding for the child spacing activities continues past the child survival grant ending, they will continue to work so all key staff will stay on board. The primary counterpart relationships with the Ministry of Health will also remain the same and district staff who do supervision and training will continue to receive technical assistance that benefits both maternal/newborn health and child spacing initiatives.

b. Summary Monitoring and Evaluation Table

Objectives	Indicators	Baseline Estimate[1]	Final Estimate First 4 Districts	Final Estimate All 6 Districts	Final Target	Explanation or Reference
Percent of mothers of 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%**	% of women with children age 0-23 months who received one or more ANC visits during their last pregnancy in program districts	50%	82%	84%	70%	
Percentage of mothers 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%**	% of women with children age 0-23 months who received at least two tetanus toxoid injections during their last pregnancy in program districts	48%	69%	69%	70%	
Percentage of children age 0–23 months whose last delivery was assisted by a skilled health attendant in program districts will increase from **16% to 30%**	% of women with children age 0-23 months whose last delivery was assisted by an SBA in program districts	16%	37%	32%	30%	
Percent of women with children age 0-23 months who received a Vitamin A dose in the first two months after their last	% of women with children age 0-23 months who received a Vitamin A dose	28%	49%	44%	60%	HAI districts ahead of the national average for Vit A

[1] Baseline data reported are for the four startup districts: Aileu, Manatuto, Ermera and Liquica

delivery will increase from **28% to 60%**	in the first two months after their last delivery in program districts					received of 25.9% per 2007 MOH report.
Percentage of children age 0–5 months who were exclusively breastfed during the last 24 hours will increase from **29% to 45%**	% of infants age 0-6 months who are exclusively breasted in program districts	29%	68%	67%	45%	
Percent of mothers of children under one year in program districts who can list at least 3 signs of serious newborn illness will increase to **50%**	% of mothers of children under on year in program districts who can list at least 3 signs of serious newborn illness in program districts	Unknown	2%	2%	50%	We found that 88% of mothers reported 1+ signs and 16% reported 2+ signs.

c. Progress by Intervention Area

The two macro intervention areas formulated in the DIP are Health Services Improvement and Community-based Health Promotion. Under the Health Services Improvement, the emphasis is on skills-based training, supervision, and follow-up and quality. During the life of project, quality expanded to include use of data and improving access, which is what created the initiative for the Birth Friendly Facility (BFF). The results for community based health promotion are covered in section three as they are cross-cutting.

While the DIP envisioned a project that would work equally in maternal health as in newborn health, there have been delays in the newborn health sector during the four years of implementation. Some of the factors related to newborn programming include the following:

- Lack of a designated person within the MOH MCH department responsible for covering newborn care (i.e. was it under child health or safe motherhood?) for the first three years of the HAI program.
- Completion of the training curricula for newborn took longer than expected because of the need to translate not only into Bahasa Indonesian and Tetun, but also Spanish as Cuban doctors were involved.
- Disruption of the first training because of civil unrest, with a resulting long hiatus and no further training sessions.
- A second USAID project which also covers newborn care but which resulted in some realigning of program responsibility.
- A difference in perception from some in the Ministry vs. HAI on their efforts. A senior counterpart promoted to a new role in the Ministry made the observation “HAI focuses too much on women and not enough on newborns. It isn’t women only in MCH,” while HAI feels they have been passionate advocates for newborn care and it is has consistently been a challenge to get MOH focused on the newborn

Despite these challenges, HAI has remained committed to improving newborn care and has creatively developed approaches that can move the program forward. For example, HAI technical staff, already trained in essential newborn care, now conduct joint post-partum care visits with district counterparts and demonstrate the skills necessary to promote newborn health. In addition, the modules for training are ready to be used as soon as the Ministry is able to prioritize the training. At the same time, key messages in HAI materials, including a major film, also promote postpartum care and exclusive breastfeeding, both essential to newborn care.

Supervision Skill Development

Supportive supervision is an essential tool of good management practices and has been one of the key interventions that HAI has promoted at the district level. The intervention includes modeling positive behavior, developing a supervision check list that helps to guide the interaction, and providing logistical support of vehicles and fuel. HAI depends on the DPO to set the schedule for supervision but is vigilant in contacting counterparts to ensure that the visits happen as regularly as possible.

HAI has observed over the life of the project a change in attitude and behavior among counterparts on the utility of supervision. At the beginning of the project, supervision received little emphasis and was viewed somewhat as a HAI-driven external activity. However new changes in the MOH mean there is now greater emphasis on supervision at both the district and national levels. In addition, the new Minister of Health is eager to see changes in coverage and services, and this necessitates more frequent supervision for monitoring, data collection and support to service providers. At this time, supervision visits are becoming more integral to the normative functioning of the MOH.

The HAI support for supervision visits has evolved since the program's inception, responding to lessons learned from the first years of operation. With the hiring of a third technical officer in 2007, the project has been able to set up a system of dedicating one technical officer to assist consistently with supervision visits in two districts. The technical officer's role is to support the district program officer's supervision of midwives working at district community health centers. Using the same HAI staff for a district promotes greater depth in program monitoring and enhances their ability to track improvements over time. Another of HAI's institutional advantages is that the supervising technical officers are all trained clinicians (two midwives and one general physician). Thus, they are viewed by their counterparts as experienced clinicians with expertise to share, and this contributes to the ready acceptance of their suggestions by their district counterparts.

The WHO MCH advisor said "HAI plays a very important role in supervision, the only NGO to do supervision after training." HAI staff are appreciated for their direct communication and "gentle correction." One person said, "They are not afraid to tell the truth." The HAI supervision tool has been adapted by the government for use at the national level and it collects information on family planning, safe motherhood, midwives' technical skills and the community health center's outreach activities. This information is then analyzed and tabulated to develop priorities and recommendations. HAI staff say they share the data with the district staff who are then required to provide reports to the central level. However, at the central level, some of the

informants felt that they were not getting all the information that HAI had collected and developed. Since the HMIS is still in a formative stage, data collected by NGOs is viewed as a way to double check the data coming in from the HMIS.

Rolling out the supervision tool has allowed the managers to understand that the use of reporting frameworks must be linked to practical applications in order for the district health staff to appreciate it. For example, one midwife reported that she was encouraged to keep counseling when she realized more of her clients were coming in for their deliveries. However at the same time, one of the district informants reported that her staff laugh as they fill in the supervision form. The form tracks a number of elements that have not yet been updated or in which there has been little change so the supervision form feels a bit redundant as each month they capture the same data.

As part of the supervision visit HAI has now added a review of maternal and neonatal death audits. The mid-term review recommended dropping this activity because the Ministry didn't seem to be ready to process or act on the information. Now with the vital registry being implemented and a renewed emphasis on EMOC, there is more use for this kind of information, so it is an appropriate intervention. The maternal and neonatal death audits have only been piloted for one month in limited sites, however the data are interesting. Of the five maternal death reported in five months, three of the women were gravida five and six out of the nineteen babies that died were born to mothers who were gravida five or greater.

The potential for scale up is already evident as the supervision tools are being used nationally. The tools will be revised over time but since HAI and the Ministry have already established a collaborative relationship in testing and piloting forms, any successor efforts should go smoothly.

- Use of Information for Program Management

As in the mid-term evaluation, the use of information for program management remains one of the weakest areas of intervention, although there have been significant improvements and changes recently. One of the first issues is that the national HMIS remains plagued with inefficiencies and inaccuracies and is still in the process of revision. In 2007, WHO contracted with an advisor who seemed to be making real headway identifying the bottlenecks but unfortunately her contract lapsed and she left. There is still not consensus on national indicators for Maternal and Child health although progress is being made and HAI continues to offer technical assistance to the discussion.

One example of the debate is the K4 indicator (the fourth prenatal visit). Data are not very reliable on this as an indicator as there are many definitions of what entails four pre-natal visits. Some groups measure them as per the WHO standard, which set a traditional calendar; others count any four visits that are made, even if they are all in the last trimester. On the positive side, there has been success in implementing the register for vital statistics and the government continues to both understand the need for and demand better data from district managers. In addition, greater national capacity at the Directorate of Statistics in Timor-Leste contributes to better support for information management.

Internally, HAI has taken a number of steps that facilitate data collection and analysis. Since they share all their findings with the Ministry, these efforts are reflected in the national program management systems. The steps included:

1. Hiring a staff person who is dedicated to data entry and analysis;
2. Bringing out a student from the University of Washington MPH program with strong analytical skills to help conduct the final Knowledge, Practice and Coverage (KPC) survey;
3. Using the supervision opportunities for data collection;
4. Using the final KPC survey process to provide the HAI team an opportunity to improve data collection skills and link their findings to an analysis of program impact.

The HAI team responsible for the KPC survey conducted a feedback session to understand what the staff learned during the process. Among the observations HAI staff made include the following:

- Problems with national health staff practices are reflected in survey results: people reported that when the nurse provided immunizations they did not record the information in the Mother and Child Health book because 'that is a job for midwives.'
- Many women were not told by the midwife about the importance of delivering at a health facility during ANC.
- Midwives provided medicines but not enough explanation and counseling.
- Some women reported that they have heard of FP methods but still do not use anything; even so, their children are spaced at least two years apart, indicating perhaps the survey did not capture data on use of traditional methods or 'secret methods.'

- Birth Friendly Facilities (BFF)

One key activity that engaged the HAI project team is the development of birth friendly facilities.[2] These were conceptualized as facilities adjacent to health centers, where women could deliver in privacy and with many of the meaningful cultural rituals (such as a rope to pull on and plentiful hot water) that would make the birth experience positive. The purpose was to encourage women to deliver with skilled birth attendants by creating a welcoming environment for delivery. HAI has been very successful in leveraging funds from other donors for these facilities. Under this child survival grant, funds from USAID were only used to cover some HAI personnel time as well as minor expenses for furniture and launching costs not covered under funds supplied by other donors.

The BFF is a variant on several models of "maternity waiting homes" currently being implemented in Timor-Leste. The government is trying to find the most effective model that will improve birth outcomes and increase the number of births attended by skilled providers. Each model has presented with advantages and drawbacks. An evaluation of other models in Timor-Lest found that in one, the *Casa das Maes* in Los Palos, there was no increase in the number of

[2] One very strong distinguishing element in the HAI approach is the extensive community consultation process prior to building/renovating the BFF. It is only after careful examination of the cultural factors that would encourage women to use the facilities (among other concerns), that plans are developed for the renovation or building. This creates an early sense of ownership which is essential to the increased use.

facility births associated with its opening in January 2005. There is however, a noticeable decline in the number of deliveries assisted by a health provider at the woman's home.[3] Whyte states very boldly "the original maternity waiting home strategy has not been successful in Timor-Leste".

Overall in the six HAI project districts, births assisted by skilled birth attendants went from 16% (2003 DHS data) to 37%. In November 2006 the first BFF opened in the sub-district of Maubara; a second was opened in Remexio in January 2007. Figures 1 and 2 show the change by year in the average number of births attended by a skilled provider both at home or a facility (mostly BFFs) in the subdistricts in which the BFFs are located. These data do not take into account the possibility that the numbers of births are decreasing (consistent with current increases in contraceptive use). In both Maubara and Remexio there was an initial decrease in the total number of assisted deliveries in the year after the BFFs opened, although there was an increase in total facility-based births. In 2008, there is an upward trend in the total number of total assisted deliveries, and in Maubara a nice increase in the number of facility-based births. Another key behavior has been an increase in referrals from the BFF to other facilities that can handle complications. This is a very important improvement at the system level.

One of the frustrations in tracking the trend changes are the confusion around the data. Essentially, HAI has to rely on the statistics provided by the service centers. The problem they face is a verified discrepancy in data sources. For example, in March 2008 in Maubara, the HIS reported eight deliveries at the facility but the facility log book recorded none and a third source recorded one. For this evaluation, HAI teams went to the field three times to try and ascertain the actual and correct numbers. HAI continuously reviews these data. When findings from a December 2007 report suggested that midwives at the BFFs were messaging that women must use the BFF and suggesting (perhaps) that midwives would not be as willing to go to homes for deliveries, HAI took action. They worked with midwives to change this message as it was not in-line with Ministerial policy. While Timor-Leste is trying to move to facility-based births, if a woman chooses to deliver at home, they want to encourage her to choose to have a midwife present rather than deliver alone.

From a qualitative point of view the BFFs were successful. From the Moore report, "the women who used the BFF and their family members were satisfied overall with the services provided to them… including satisfaction with the care they received and appreciation of the amenities used in the BFF that were similar to home births." Similar findings were discussed in the Whyte report: "women and families who used the maternity establishments were very satisfied with the service, and appreciated having a space just for mothers and families."

[3] From the report entitled Improving Access to Care, Birth Facilities and Maternity waiting homes in Timor-Leste by Wayte, K et al, December 2007.

Figure 1: Mean Monthly Deliveries with Skilled Birth Attendant in Maubara Sub-District

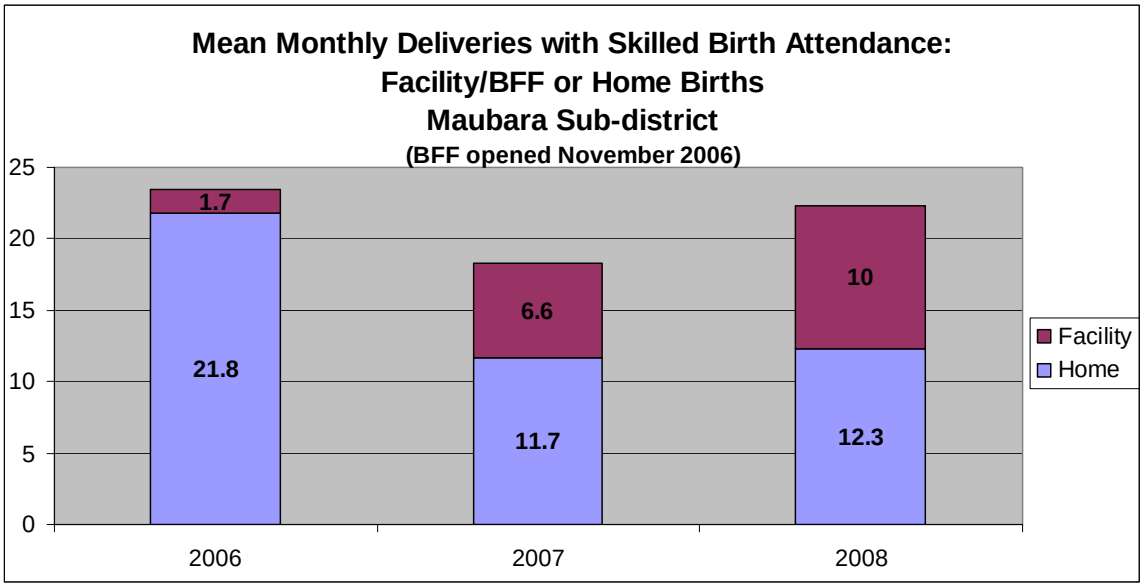
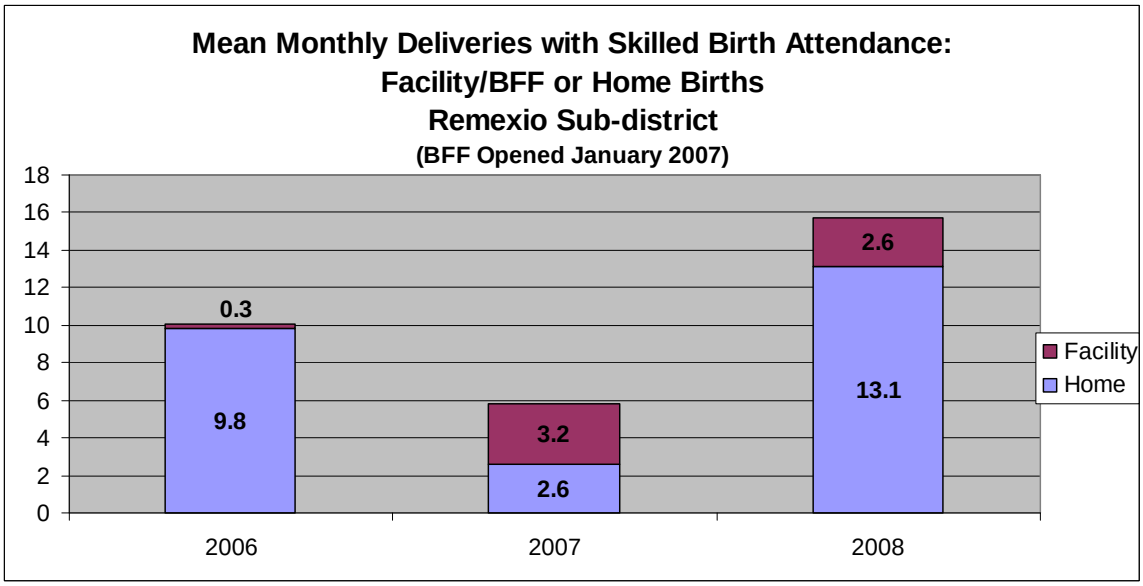


Figure 2: Mean Monthly Deliveries with Skilled Birth Attendant in Remexio Sub-District



While the BFF and MWH are very different approaches in terms of funding, services provided and utilization patterns, it is still relevant to look at the demographic characteristics of women who used any of the models. In the HAI report, more women with primary school education used the BFF and on average had one fewer child than those who didn't use the facility. The Whyte report found that women using the facility had access to transport, were first time mothers or had had a bad birth outcome in the past and either they or their husbands had a secure job. Many of

these factors are indirect influences and outside the health system as they reflect education and economic status.

In the reports cited above, there are some common findings on barriers to access and use among the different models. Some of the common findings include:

- Transportation remains an issue. When Same had an increase in facility births, it was because a new ambulance had been delivered and it was easier for women to access the facility.
- Finding a place for the family to be housed and fed during the birth process is also a significant contribution to positive outcomes. Families are reluctant to undertake the journey to a health facility if there is nowhere to stay.
- Behavior change around the very personal and culture-bound decisions related to childbearing is slow to occur.

Lessons learned from implementing this intervention include:

- Maternity Homes/Birth Friendly Facilities alone are not enough to increase the skilled birth attendant rate, even with strong community involvement in their development. Transportation to reach the facilities and staff available to manage the facilities are equally important determinants for success.
- There are likely to be differences in who uses the facilities. Education and ease of access to the facility are two predicators of increased use.
- Facilities are relatively expensive to rehabilitate or build. For future programs, supporting and modifying existing capacity and improving basic emergency obstetric care might improve birth outcomes and increase attendance by skilled providers.
- Careful evaluation should accompany any future efforts to improve SBA use through facility changes.

These ambiguous findings on the impact of BFFs have not dissuaded HAI from piloting more Birth Friendly Facilities. Two more will be ready in December 2008; they were scheduled to be built earlier but the political events of 2007 delayed their development. The final two will come on-line some time after that, as the community consultation process just started in late August 2008. In essence, quantitative data is still insufficient to judge overall impact but there is enough client satisfaction to justify continuing with a careful evaluation component. An early look at CHC data shows that there is a trend for overall increases with skilled birth attendants, at least in Remexio. It would be shame to stop this initiative too early if indeed women were beginning to change their behavior in positive ways.

Birth-Friendly Facility in Remexio

Birth-Friendly Facility in Maubara

The wooden bed, rope for the ceiling and colorful murals inside the BFF

A mother helps herself to tea while waiting to deliver at the BFF

2. Results on Family Planning

The Child Survival Grant under evaluation does not have a family planning component as per the criteria established by USAID and thus the published evaluation questions are not relevant. However, HAI did receive a second grant through the Flexible Fund for a child spacing project. This grant was recently significantly strengthened with an award from the USAID Mission to enhance and expand child spacing activities. HAI has chosen to implement the two programs in an integrated and synergistic manner, which the evaluation team endorses and which is result of recommendations from the mid-term evaluation. Because the counterpart staff for both grants are the same, HAI is able to build on their existing strong relationships at the district to implement the child spacing program.

While Timor-Leste is indisputably a Catholic country, there is no strongly organized opposition to family planning. In fact, one of the country's bishops has publicly endorsed the importance of family planning for responsible parents. Timor Leste has the world's highest total fertility rate, and the Ministry of Health recognizes that lack of knowledge about contraceptive choices, little access to contraceptive methods, and close birth intervals compromise the health of women and children. UNFPA supplies the MOH family planning program with contraceptives for distribution, as well as the Marie Stopes Clinic, an international NGO providing FP services. HAI worked closely with UNFPA to develop key messages for the family planning program, which stresses the health of women as well as children, rather than simply limiting family size.

HAI received program funds in 2005 and among its accomplishments to date are:

- Finalization of key messages that work in the Timor-Leste program, notably that child spacing benefits both the mother and child and is not a program aimed at "population control." This is very important to stress as in Indonesian times the key message was "Two children are enough," which made the Timorese think the program had primarily a political objective.
- Developing a child spacing tool kit of stories and dramas[4] that can be used by midwives for community education, and training midwives to use the kit.
- The development of a two-part film that discusses family planning methods and the benefits from spacing children with an accompanying discussion guide for use in the community. In addition, a training for midwives on the use of the film and discussion guide is ready for implementation in the near future.
- Counseling and education outreach to women who are interested in knowing more about contraceptive methods after they have watched the film.
- Working with the Ministry of Health on the indicators to measure family planning, in particularly helping to define a "new user" and incorporating data collection on family planning in the supportive supervision form.

[4] HAI is re-evaluating the continued use of the dramas as they are finding them hard to implement. It requires significant numbers of people to be able to use them and the midwives have not really adopted this method of communication. HAI believes that the key messages intended to be transmitted via the dramas are now captured in its new FP film, which is easier to use. Therefore they will focus on the film in the next two years, rather than the drama.

- Working with both MOH and coffee cooperative (CCT) clinics as a venue for showing the film and reaching new users.
- Two HAI midwives have been trained as national FP trainers. They assist the MCH-DPOs with routine supervision as well as with the supervised practice and competency checks related to the training of midwives for implants and IUD insertion.

As always, HAI remains very sensitive to the Ministry's needs and concerns. The MOH have asked that HAI and other partners show the second part of the family planning film (which provides great deal of detail on the modern methods of family planning) only to women and men who have demonstrated their interest and in a closed-door setting in order not to inflame the sensibilities of the Church. At present, there hasn't been survey on the impact of this national family planning approach but there will be a Demographic Health Survey done in 2009 which should give a better picture of the contraceptive prevalence rate.

3. Results on Cross-Cutting Approaches

a. Community Mobilization

In the Detailed Implementation Plan, education and outreach services at the community level were considered necessary if health practices and health status were to be improved and sustained. The results for three indicators measuring change under this objective are shown in Table 4, below.

The anticipated partners for this effort of community mobilization were church members, Peace Corps Volunteers, Ministry of Health staff in the Health Promotion Department and community health workers, who were an undefined group at the time of the DIP. During the project, there has been more limited engagement with the Church than HAI desires. The most significant work has been with the sisters in Aileu, other activities that HAI has been able to accomplish with Church partners includes:

- Inviting Church leaders to participate in initial community assessments
- Inviting them to film showings, to the BFF community consultations and to drama performances
- Providing materials to the sisters in Aileu
- Drawing on the experience of the sisters during the developing of the FP film
- Including a message from the Bishop in the family planning film

Table 4: Measures of Improved behaviors after Community Outreach

Indicator	Baseline	Target	Final	Comments
% of mothers with children 0-23 who received at least two tetanus toxoid injections before birth	48%	70%	69%	During data collection, had a fair number of women reporting they had 3-4 TT injections.

% of women with children 0-23 who received one or more antenatal care visits during their last pregnancy will increase from an estimated 50% to 70% in program districts.	50%	70%	84%	Some respondents stated they went every month of pregnancy, estimated by surveyors to be 9 ANC visits. This would have been over-reporting but when the data were checked against the LISIO, 7-9 visits were recorded, thus not over-reporting for "one or more."
% of infants aged 0 to 5 months who are exclusively breastfed will increase from 29% to 45%	29%	45%	67%	

After a promising start, the relationship with Peace Corps was disrupted when the volunteers were all evacuated from the country and the program closed down. This particularly impacted the youth groups initiative that HAI was trying to start.

Counterparts in the Health Promotion department at the Ministry have been close colleagues but are swamped with demands from other partners and efforts to develop significant numbers of materials relevant to the current socio-cultural context of Timor-Leste. Conversations with MOH staff in the health promotion department reflected this close relationship with HAI. They consider HAI an essential member of the team, particularly the work that HAI has done with the PSF program, which has evolved into a key component in the national community outreach effort.

PSF, the new national community health volunteer program, has emerged as an important sector demonstrating HAI's support of the government, support that includes posting one of their staff as the western region PSF coordinator for the Ministry (an unpaid position subsumed into HAI duties). However, this program was not without flaws. As the HAI third year report[5] stated:

- There are concerns as to how the program has been initiated (a very top down approach, minimal community involvement, lack of adherence to the PSF guidelines that were originally developed by the MOH to guide the program).
- There is limited receptivity to external input.
- The exact roles and responsibilities and the setting of priorities as to what the volunteers should be trained in were still not clear. This makes it very difficult to anticipate just how the PSF program can best be included in HAI's plans for work at the community level.

[5] Health Alliance International Annual Report, 2007, submitted to USAID as part of routine project monitoring documentation.

Despite these challenges, HAI has embraced this initiative and supported government implementation. HAI conducted a training for the PSF in two pilot sub-districts in the use of photo cards and posters that they developed, a primary educational material to help women make better choices for care during pregnancy, childbirth and post partum. The midwife Luisa da Costa indicated that the PSF working in her area were using the cards and that she had seven women deliver in her health center because of discussions with the PSF on the advantages of a delivery attended by skilled providers.

One cautionary note was voiced by a HAI consultant, who felt there was a danger in overwhelming the PSF with training and materials. She had a number of recommendations based on her experience piloting the photo cards. She observed that since many PSF have limited education, it is important to use very clear materials and conduct quite targeted trainings. As she noted:

- The activities must be simplified, as each one of the piloted training efforts was found to have too much information in them.
- Varying the teaching techniques is important to transfer information – the same technique in the pilot training was used over and over again. She suggested that perhaps activities that don't take up a lot of time and energy but are a little bit interesting is the way to encourage people to stay focused on the training.
- Put background information into the PSF manual instead of using handouts.
- The language must be simple as the participants using the language are only fluent with Tetun.

HAI is adapting these lessons learned into the new rounds of PSF training and will continue to refine the process after each training, based on field experience and participant feedback.

HAI has also assisted implementation of the new national community mobilization program called SISCa. In this program volunteers and health staff reach out to the community to address nutrition, pregnancy services, personal hygiene, immunizations, and health promotion messages. HAI activities under this approach include assisting the MOH in:

- Socialization of the concept and program to the community
- Participating in the working groups that debated the nature of the program
- Training staff in the program elements
- Providing supervision with district teams

At this point in time, impact data from SISCa are not available as the program has only been implemented since March, 2008. However, it is fair to say that HAI had a seminal role in shaping how the outreach program would be conducted. During a meeting for this final evaluation, the Minister of Health reiterated that SISCa would remain the focus in the future but that there would be a revised training strategy, based at the local level. Given that HAI has both a village and district presence, he anticipates a continued role in the mobilization of human resources.

b. Communications for Behavior Change

From the inception of the program, HAI has been dedicated to creating innovative and well-tested materials, based on Timor-Leste culture, to get out key messages on maternal and child health. All efforts are grounded on formative research and include an evaluation component afterwards. The products HAI has produced for its Behavior Change component include:

- Development of a street-drama performance focusing on pregnancy and childbirth by a local professional acting troupe, *Bibi Bulak*. When the security situation made reaching many areas difficult, a DVD of their theatre piece was made available.
- Work with youth drama groups for two years. This was truncated when Peace Corps left the country as they were the liaison between HAI and these groups.
- Six radio public service announcements that broadcast for four months.
- Two films, one entitled *Feto Nia Funu* which focuses on pregnancy and childbirth with the traditional cultural aspects of East Timor and the other a two-part film on family planning, entitled *Fo'o Espacu Oan: Hari'i Uma Kain nia Futuru! (*Using child spacing-builds your family's future!*) and Dalan Barak ba Espacu Oan: Ita Rasik Hili* (Many method of child spacing -- your choice). Part one includes general information about the benefits of child spacing, while part two includes very specific information about modern contraceptive methods.
- A brief seven-minute DVD made by a University of Washington student that features the birth friendly facility and is designed to support the community consultation process.
- Brightly colored photo cards and posters to be used as primary educational material to help women make better choices for care during pregnancy, childbirth and post partum. The production was in part financed by UNICEF.

All of these materials use the same key messages developed in the first years of the project and based on field research and testing. As with any development programs, there were many key messages that could have been reinforced. HAI deliberately limited the messages it promoted and then repeated those key messages throughout all the different media. For example, when the film *Feto Nia Funu* opens, it is with a scene from the *Bibi Bulak* drama on pregnancy.

Bibi Bulak was the street-drama performance done by a local acting troupe. It was performed in front of 1800 people by the mid-term evaluation (late November 2006) and continued to be performed. When the security situation reduced the troupe's ability to travel in the field, they made a 20 minute DVD of their work promoting childbirth and pregnancy messages. Using pre-test and post-test survey methodology during the evaluation of the live drama performance, the reviewers found a statistically significant positive change in understanding of ten out of the 12 key messages. Only responses to the following two questions were not statistically significant:

1. "Do you know any specific reasons why a pregnant woman should visit a midwife?" Please list some.

2. Why is it important for a mother and her newborn baby to be checked by a midwife soon after birth?"

These results shaped one of the key recommendations of the evaluation, namely "In particular, the less tangible aspects of ANC, postpartum and newborn visits – those related to monitoring, counseling, planning – should be more heavily emphasized, as they appear to have been overshadowed." HAI took this recommendation into account when designing its photo cards to promote better choices for care.

The second intensive communication effort was the film *Feto Nia Funu.* This innovative film has attracted significant amounts of attention, including some concerns about its graphic depiction of childbirth. It will be discussed in greater detail in Annex One on the Results Highlight. In addition to this film, a second two-part film on family planning was produced. The first part discusses and portrays health benefits from timing and spacing of pregnancy and the second part offers a detailed examination of modern family planning methods. During this final evaluation, there was an opportunity to observe the HAI team conduct a screening at the CCT clinic. The audience of approximately 20 women was spell-bound by the film and then participated extensively in an animated question and answer period.

The third intensive communication effort is the photo-card set. The cards are designed to be used by people with a non-formal education background with photos of local scenes and people, and the messages contained on them are approved by the MOH. They have been extensively field-tested and the use of the cards by the PSF has been evaluated, although the full report is not yet available. Preliminary findings from the report are very interesting:

- Many more women report giving colostrum
- In Fahisoi, more women are reported as delivering at the health post. In 2007, there were six deliveries, while in the first seven months of 2008 there were 26 deliveries.
- There is community talk about the fact that fewer babies seem to be dying now that the PSF are helping.
- Understanding of some key messages by the PSFs is not clear; for example one PSF reported that they should provide information on family planning within the first year postpartum

In one of HAI's program areas, a midwife using the cards said she had discussions with clients on home-births and attendance by skilled providers because of the cards and she found them a very useful tool.

One unforeseen consequence of the production of the cards was a misunderstanding between HAI and its partners in the dissemination and use of these materials. Because HAI has a reputation for excellence in research and materials production, partners such as TAIS, CCT and the Alola Foundation were very eager to get the materials and start using them in their field sites. They did not understand why the cards were stored in the hallways of the HAI office and why they were not able to use them as early as possible.

HAI is normally a very inclusive partner but in this case they had some hindrances to the full release of the materials. These included:

- A request by the MOH to adapt some elements of the training, including danger signs in pregnancy and for newborns.
- A delay in the evaluation of the materials because of personal circumstances of key staff

When initial feedback on the cards was positive, HAI did use the materials in a training of CCT community facilitators in late July 2008 and offered to provide a training to the leaders of the Mother's Support Groups for the Alola Foundation. As of the writing of this report, the materials have been turned over to the Ministry for a final review and approval and HAI is beginning to intensify the dissemination of these photo cards to partner groups.

c. Capacity Building Approach

i. Local Government and NGOs

Although HAI did not have a detailed plan for improving the capacity of local NGOs, their work with the stage group *Bibi Bulak* was critical to its capacity development. Because of their work with HAI, the group developed an expertise and background in maternal and newborn health which allowed them to take on the work of creating a radio drama for UNFPA. They use the HAI documents in family planning and maternal and child health to shape their work, and continue to draw on the HAI technical staff as a resource. This work with *Bibi Bulak* typifies how HAI contributes technical skills and knowledge and helps partners flourish.

In designing this project, HAI took into account that there were very few human resources in Timor-Leste to draw on, either in the private sector or in the government sector. Available counterparts were stretched very thin and faced an enormous task of creating whole systems out of ruins. HAI developed the concept of a new position within the government health system, namely the Maternal and Child Health District Program Officer. This position was ultimately approved by and funded by the Ministry of Health and is inherently sustainable since it part of the national health structure. It has been a key position in developing the capacity of the local government, although in recent conversations with the former Minister of Health he asserted "The DPO for MCH has not yet reached their full potential and impact, they need continued training and supportive supervision." HAI focused on the MCH-DPO as primary actors when initiating supportive supervision visits, a key intervention. The following observations came from interviews with two[6] of the MCH-DPOs:

- HAI was helpful in setting up logical schedules for supervision

[6] HAI has noted that they are disappointed in the evaluation methodology that only allowed for two of these key counterparts to be interviewed. This was due to timing of the field work and the work demands on the counterparts which limited their availability. The team leader acknowledges that this is a valid criticism but does not feel it is fatal flaw in the evaluation. Given the overwhelmingly positive feedback about HAI and the consistency of comments from counterparts, there is no reason to believe that the other MCH-DPOs would have offered significantly different input. Nonetheless, the team regrets the limitation.

- HAI was also quite respectful: when they had corrections to make to the practices of the DPOs, they did so behind closed doors.
- The skills of the MCH technical staff from HAI are excellent so they felt they were learning from experts, which they liked.
- A systems difficulty is some supplies they need to do their job well, and which were reflected in the HAI supervision checklist, were infrequently available to them.

HAI conducted a baseline health facility assessment at the start of the project for its capacity building approach but did not repeat it at the end, in part because so many institutional changes were being implemented. These included:

- the intensive roll-out of the Basic Services Package, which has extremely detailed systems matrixes,
- the changes in government, which had mid-level counterparts leaving positions,
- the arrival of the Cuban brigade, which placed over 300 health care providers within the Timor-Leste system, including in some remote areas,
- the imminent change to municipal systems.

Overall, the capacity of the Ministry of Health and district health offices improved during the four years of the program. This is indicated by their enhanced planning and budget skills, their revisions to the national training plans and their decreased dependence on significant numbers of expatriate advisors to handle basic functions. The Health Promotion Department Head stated that in working with HAI, his staff learned the role of formative research in shaping key health messages and also how to craft messages that would be easily understandable for the community.

As a result of HAI's experience in working so closely with MOH counterparts at both the central and district level, they have articulated some of the best practices for developing local capacity. These include:

- Modeling planning and supervision skills and minimizing reliance on formal training sessions for learning.
- Focusing a staff person to work in a specific geographic area promotes more opportunities for dialogue and monitoring of change over time. HAI's approach to supervision was refined in 2008 and linked each of the technical officers with two districts. This improved the communication between partners and allowed for better follow up in each subsequent supervisory visit.
- Overcoming resistance to change, such as when district staff were not sure of the merit of the new supervisory tool, through demonstration of utility. When midwives noted how useful the tool was, they became more interested in learning how to use it.
- Never losing sight of the fact that the Ministry leads and technical assistance supports. The Ministry of Health repeatedly commented on how much they appreciated HAI's sense of collaboration and support.

- In resource-constrained environment such as Timor-Leste, where many counterparts are just developing their skills, patience and multiple contacts over time go a long way in building a sustainable foundation. To this end, it is sometimes necessary to blur the line between project staff and counterpart staff. In fact, one of the HAI staff serves as an area coordinator for the government for new outreach program, albeit on a volunteer level. While this is unusual, it has been the appropriate response for Timor-Leste.

ii. Training

As in any program that has capacity development as an intervention, HAI built in training as one of its strategies. The DIP included discussion of a training needs assessment of midwives and then a plan to train midwives in antenatal care, communication, postpartum/newborn care and vitamin A supplementation. While HAI has trained over 500 people [7](see Table 2 on the next page), the training plan had to be altered because of changes in the overall training strategy of Timor-Leste. One factor that has constrained training efforts is competition from other donors for training time, as the same small group of staff (primarily midwives) was designated as the training target by multiple institutions. This intensity of training would not have allowed the staff to actually function in their jobs and the Ministry set up guidelines that would determine when and where and how staff were to be trained.

The designated training partner discussed in the DIP was NCHET, the National Center for Health Education Training. However, during the first two years of project inception NCHET was a moribund agency in the process of being revamped. The Institute for Health Sciences is the new agency currently responsible for health worker training, and it will ultimately be the sole agency for doing training, including pre-service education. However, at present they are still trying to clarify roles and mandates and develop the number and capacity of trainers, so training efforts remain distributed among different agencies. HAI has had to cancel one training on partograph use because of miscommunication between the districts and the center, but they have usually been able to navigate the complex training system successfully to ensure the right participants are getting trained at the right time.

[7] This training chart does not reflect ad hoc teaching moments that resulted in practice changes, such as a DPO beginning to use the supervision tools because they now understood them.

TABLE 2: SUMMARY TRAINING DONE WITH HAI INPUT

GROUP	SUBJECT	PARTI-CIPANT TOTAL	ADMINISTRATIVE UNIT
Health staff	Health Staff/DTT - Training of trainers	17	DHS Liquica
Health staff	Health Staff/DTT - Training of trainers	21	DHS Aileu
PSF	Basic training for new PSF	22	Subdistrict Maubara
PSF	Basic training for new PSF	21	Subdistrict Bazertete
PSF	Basic training for new PSF	24	Subdistrict Liquica
PSF	Basic training for new PSF	22	Subdistrict Liquidoie
PSF	Basic training for new PSF	65	Subdistrict Turiscai
PSF	Basic training for new PSF	20	Subdistrict Fatuberlihu
Health staff	Training of trainers for use of Photocards and posters	13	National workshop with participants from HAI and 2 pilot districts
PSF	Training PSF on use of Photocards and posters	22	Subdistrict Liquidoie (HP Fahisoie)
PSF	Training PSF on use of Photocards and posters	16	Subdistrict Maubara (HP Guico)
Health staff	Master trainers training	32	National level with participants from districts and other NGOs
Health staff	Training on use of Feto Nia Funu and Discussion guide	19	National level with participants from HAI District staff and Healthnet staff
Health staff	Training on use of Child spacing films and Discussion guide	16	National level with participants from HAI and other NGOs
NGO staff	Training on use of Photocards and posters	16	Participants were CCT community facilitators from 3 districts
NGO staff	Training on use of drama for child spacing, use of Feto Nia Funu	6	Participants were CCT community facilitators from Letefoho subdistrict
Midwives	Family Planning Clinical skills and counseling	26	Aileu District
Hospital MWs and Drs	Training of trainers for Care of the Neonate	8	HGNV
Hospital MWs and Drs	Care of the Neonate	16	Participants from national hospital as well as 4 district hospitals
MCH-DPOs	The Role of the MCH-DPO - a 5 day workshop	13	held in Dili
Midwives	Refresher trainings on safe motherhood, the use of partographs etc.	92	Held at different times at district level
TOTAL		**507**	

In measuring the impact of training, HAI had established as a target that 90% of the program districts would have staff trained in ANC. The results of the final survey indicate that 86% of health facility staff have been trained in ANC. However, the figure is ultimately higher because of the many Cuban health staff (who were not counted as health

staff in the initial determination of the denominator) present in HAI districts and because of recently-graduated midwives who have also completed training in ANC.

While the second objective also aimed to cover 90% of the program districts with training in essential newborn care including resuscitation, they reached only 17% of district health facility staff.[8] Dr. Ingrid Bucens completed the development of curricula in essential postpartum and newborn care for midwives; however, a full training schedule was thwarted by the unrest of 2006 and subsequent political changes in the country. Only one training has taken place on those topics to date. This may account for the final KPC survey finding that only 2% of mothers could cite three or more serious symptoms of illness in a newborn that warranted consultation with a health professional. However, 88% were able to identify at least one sign, with fever the sign most frequently reported.

Table 3: Percent of health facilities within program districts with a health provider trained in postpartum and newborn care

	Numerator: Number of MOH health facilities with trained midwives in PPC	**Denominator:** Total number of MOH health facilities	**Percent facilities with midwives trained in PPC**
Original 4 districts:			
Manatuto	3	18	17%
Liquica	0	13	0%
Ermera	1	8	13%
Aileu	2	13	15%
Total	**6**	**52**	**12%**
Additional 2 districts			
Ainaro	3	9	33%
Manufahi	3	11	27%
All 6 districts	**12**	**72**	**17%**

The issues surrounding the newborn care training are indicative of how external events, beyond the control of the project, can have a profound impact on its ability to realize goals. Not only did HAI have to deal with the disruptions of civil unrest, they had to ensure the curricula was available in three languages, including Spanish, to accommodate the Cuban participants. They also had to negotiate consensus on the material among myriad stakeholders to ensure that all groups were satisfied with the content. Despite these challenges and the disappointing results to date, HAI remains optimistic that they will be able to make progress in this arena in year five. HAI will continue training midwives in post-partum and newborn care during the fifth year of program implementation. The

[8] In addition to this low percentage, who was trained was different than anticipated. HAI wanted each facility to have TWO providers trained in newborn care so they could support each other. In practice though, some districts trained one midwife from two different facilities and other districts trained the DPO in addition to the community level midwife. Training the DPOs was necessary as they would be expected to supervise these newborn practices but it still leaves short the number of trained midwives per CHC.

current plan is to select ten participants from the last training and teach them how to be trainers on the topic themselves, then to continue to train more midwives, thus developing a cascade system of training.

Overall, the training effort is one of the strategies that did undergo significant organic revision during the course of the project. Ultimately, HAI turned to different approaches, including one-to-one supervision, as a way to convey the necessary new clinical and management information. HAI's consistent and constant district reinforcement of skills is an appropriate way to ensure the use of new skills. Thus, even though the training numbers are less than expected, they are solid and realistic given the constraints that HAI encountered. In addition, because the training materials have been adapted at the national level and are being used in national programs, the impact of the training will continue long after HAI staff have graduated to other functions.

d. Health Systems Strengthening

HAI has concentrated on strengthening health worker performance at the district level as well as on quality of care, particularly the counseling and communication skills of midwives. Further efforts were also made in management and coordination. Many of HAI's contributions to strengthening the overall national health system have resulted from ad hoc requests from the government and were not detailed in the DIP. Among these efforts include the following:

- Participating in the Safe Motherhood Assessment.
- Fielding staff for doing the Emergency Obstetric Care Assessment.
- Support for the roll out of Basic Service Package[9] (tools development).
- Contributions to the implementation of the PSF program, including training and piloting health promotion materials, and a pilot of intensive supervision of the PSFs in two districts.
- Assisting in establishing the vital registration initiative undertaken in one district by the government in 2008.
- Supporting the supervision of SISCa efforts, which was only heavily promoted beginning early in 2008.

In the above efforts, the tools that HAI used were provided by the government and usually reflected best practices as advocated by UN agencies. HAI used the tools from the WHO Safe Motherhood Assessment to conduct the baseline health facility assessment. Based on this, HAI instituted a practice of supervision, mentoring and monitoring and on-the-job training and correction. The majority of HAI efforts were directed to the district-based health facility; in fact, one of their first significant accomplishments was to get the district-based MCH program officer to be hired by the MOH and in all 13 districts.

[9] As Minister Rui said in the introduction to the BSP roll out, the effort is geared to bring about all the enhancements in clinical care and public health services. The Ministry of Health embarked on a course to strengthen Primary Health Care while consolidating its efforts to upgrade and maintain secondary (hospital) care through the development of a package of services to be provided at all levels of health service delivery.

Changes in performance were monitored over time by the use of field reports, supervision reports and frequent scheduled meetings with the district supervisors.

No formal health facility assessment was conducted at the end of the project. This was an appropriate decision because of the intensity of health system development as a national initiative over the last four years. HAI started an initiative in Same by hiring a health advisor whose specific function was to coordinate all efforts at the district level. At the end of her tenure, HAI has revised its thinking about this placement. They will base the newly hired advisor in Dili again, with frequent forays to the districts. This way, the same person can provide technical support to both the central and district level, and also mentor HAI technical staff to better develop their skills.

The health sector attracted significant investment and donors such as UNICEF, AusAID, the World Bank and other multi-lateral organizations have all provided inputs, including supplies, medical equipment and human resources such as the Cuban brigade. To isolate the specific impact of HAI's efforts in the face of such complex institutional support would have been very difficult.

Nationally, the country has just started two programs (PSF and SISCa) designed to better optimize the linkages between the facilities and the communities as there is still under-utilization of the health facilities within Timor-Leste. HAI has been involved in the discussion of how the programs would be implemented and with content for the training of staff in these programs. HAI has also supported district level training for the PSF in order to support the development of linkages between the community and facilities as the PSF are viewed as the "bridging mechanism" between the two groups. In addition, HAI used community consultation for all its health promotion messages, for the building of the Birth Friend Facility and in creating demand for health services. HAI has also held meetings with community leaders to promote and develop birth plans and emergency transport plans.

In January of 2008, the government created the new position of District Advisor, who counsels the Minister on district programs and progress. HAI enjoys a sound relationship with the three current advisors and will continue to develop this relationship in the remaining project time. Overall the lessons learned from Health Strengthening include:

- There needs to be a balance between the inputs to the central level and to the district level,
- District-based HAI staff need to have technical strengths and be deployed more effectively; merely being resident in a district is not enough to create automatic collaboration.
- HAI has a limited mandate for its technical assistance efforts and has not had either the authority or role to provide supplies. They have however worked as an advocate for the districts, providing information to multinational organizations such as UNICEF on what is needed in terms of equipment and supplies. HAI also gives feedback on the appropriateness of materials received at the District level, which is very important. There are ongoing efforts to strengthen the work of

SAMES, the national health commodities procurement agency. HAI staff have provided feedback from their experience to those experts.

- Flexibility in responding to government initiatives is highly prized and HAI has received top marks from government counterparts for its flexibility and responsiveness without sacrificing progress toward articulated objectives.

e. Policy and Advocacy

The development of policy has been a primary goal as Timor-Leste makes the transition from a new nation to a fully functioning sovereign state. HAI staff played a key role in the re-establishment of the MNCH (Maternal, Newborn and Child Health) working group, the primary arena for developing national MCH policies. One very specific contribution to increasing coverage of comprehensive integrated postpartum care (including vitamin A for postpartum mothers and hepatitis B vaccination for newborns) was to contribute intensively to policy development for national standards

In addition, because of experience at the district and facility level, HAI has significantly contributed to other national level policy efforts, such as the development of the Basic Service Package, the RH National BCC Strategy, and the review of indicators to be measured by the HIS. HAI used evidence from its program activities in other countries to contribute to this policy development. Policy efforts in Timor-Leste benefit from HAI's strong links to the university system and their tracking of global changes in health policy. The Deputy Director for HAI is also on the faculty of the School of Public Health at the University of Washington and party to many technical list serves; therefore she makes sure to pass on information she deems relevant to the Timor-Leste discussion. The capacity building and the policy development activities undertaken as part of this grant will continue to provide positive impact for health long after the grant cycle ends.

f. Scaling Up

HAI is probably one of the most effective organizations in Timor-Leste in contributing to the scaling up of activities. They planned to support six district program officers in maternal child health; the government adapted the program and paid for thirteen officers. HAI did the initial training for these 13 MCH-DPOs when they started their jobs, thus once again having a national impact. The materials it developed for use in the six districts became national materials in support of key behavior change messages around child health and pregnancy, again making national impact from only limited funding. HAI's training of the PSF volunteers, a government sponsored national program, also ensured the appropriate strategies were uniformly implemented across the country. Because of their technical skills, they participated in Emergency Obstetric Care assessments, again as part of a national plan. HAI also supported HealthNet, a local NGO, to show the film *Feto Nia Funu*, in four districts where HAI does not work. Furthermore, HAI has been able to use the CCT network of clinics as venues for training and showing the family planning film, again extending the impact of its work.

While HAI has not yet been able to sufficiently optimize the church networks predominant in Timor-Leste, they have embraced the new national program SISCa, which

promotes outreach to the village and community level, including isolated hamlets. The Minister of Health stated that HAI was one of the few partners that worked at the aldeia or village level, and that is where the most significant change in health outcomes would be realized. The Minister has a saying of "one vision, many hands" and consistently cites HAI program efforts as contributions to national health vision. HAI also partnered with TAIS, which is a USAID-funded bilateral program, to promote newborn health messages and practices in Timor Leste, including some regions that were not HAI districts. This coordination of effort eliminated redundancies and at the same time promoted evidence-based practices.

Overall, the key lesson learned for supporting scale up is to embed all program activities within the national framework. That way, HAI assures that activities approved by the government, be it a key behavioral message or use of a supervision check list, will then be used in all the districts, even without HAI management.

g. Equity

Overt discussion of equity was not one of the major planning principles used for this HAI program. Financial inequities are not factor to address as all services are currently free in Timor-Leste and cost is rarely given as a factor in decision making. However, by the very nature of reaching out to the poorest and most rural communities, HAI made an effort to address geographic inequities. Relatively late in the project and after project implementation evaluation, they have noted specifically that geographic distance from health facilities serves as a real barrier to access and that this is dependent on the physical landscape of the region. The project is beginning to explore possible strategies to allow women to overcome this barrier, including the intense promotion of the SISCA program, which focuses on outreach. Equity will become more important in Timor-Leste during the next few years as under the new budget planning practices, equity is explicit criterion for deciding on budgets.

Another equity issue that HAI staff have attempted to address is the reality of poverty as a deterrent for women in choosing a health facility for their deliveries. During the baseline discussions, a number of women stated they were reluctant to go to the clinic for their delivery out of shame for not being able to provide new baby clothes or blankets for the new infant. In Timor as everywhere else in the world, the birth of a baby is a joyful event, but the poverty of many Timorese families is such that they are not able to purchase even the simplest new items in preparation for the birth. Alola Foundation produces 'Mother-Baby Packs' that include sanitary pads and a sarong for the new mother as well as baby clothes, diapers, soap and blankets for the baby. HAI has been able to solicit private donations to supply the packs to women who attend the birth-friendly facilities. Subsequently, the MOH, with funds from UNFPA, has elected to provide these packs for all women who deliver in health facilities

h. Sustainability

The DIP states HAI's phase-out strategy this way: "Direct support of the startup districts will diminish, based on the ability of district staff to continue to implement and monitor

programs. 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." In some cases, such as the placement of the MCH DPO within the national health infrastructure, HAI has exceeded their sustainability goals. In others, it is clear that there are positive trends but that the ability for the districts to take on full supervision and implementation is still some time off. It is actually premature to discuss the "phase-out" of the program because through judicious use of funds, the project has enough anticipated funding to continue for a 5th year. In addition because of the second grant for family planning, the project will be able to continue many of the MCH activities in different sites, as they have adopted an integrated approach to reproductive health, combining MCH and Family planning.

Timor-Leste is reworking its civic structure to have a geographic management system based on thirteen municipalities. This will change the budget available for MCH as resource allocation will be locality dependent, although currently MCH remains a national priority. Thus the elements of financial sustainability are still not immediately apparent, particularly as there are no fees levied for services currently. HAI as an agency however has certainly promoted financial sustainability and diversified their resource base to include support from UNICEF, AusAID, the Japanese embassy and other groups.

HAI has also been successful in building demand for services, although they have had to balance creating demand against overwhelming facilities because of human resource and materials constraints. Through the use of the film and the Birth Friendly Facility, HAI has developed culturally appropriate messages and services for the community to use for better maternal care. They have engaged the community through many focus groups and have sought solid input as to how the community would like to define the Birth Friendly Facility to be established in their community. That being said, it is also evident through external evaluation (Wayte et al) that developing facilities alone is not the answer to the low level of assisted births by skilled attendants. For true sustainability, the government will also have to tackle the paucity of midwives, the lack of ambulances and accessible road systems and the indirect influences such as education level and employment status of husbands.

E. MISSION COLLABORATION

The USAID health portfolio in Timor-Leste is very tightly focused and HAI is a key player. They maintain good relationships with the Mission, providing progress updates and inviting them to participate in any events of interest. HAI collaborates with two other groups that receive significant USAID health funding, sharing BCC materials and training guidelines. Recently, when the USS Mercy ship (a Navy hospital facility) was in port, HAI staff assisted with translation.

HAI is fortunate that the program officer for USAID Timor-Leste is very supportive and facilitates its work by promoting an open and transparent dialogue. He is always available to answer questions and provide information on future funding and any strategic changes. The Health Officer is equally engaged and ensures that HAI receives adequate

information on any new health direction. The only observation from the USAID Mission during the evaluation was that since the Child Survival Grant is administered from Washington, they are not sure they always receive copies of reports or surveys and thus they requested that HAI continue to send them copies of annual reports and other key documents.

F. CONTEXTUAL FACTORS THAT INFLUENCED RESULTS

The HAI program in Timor-Leste has been influenced by the political events of the country. Starting in late 2005, the following are just some of the disruptions that the program has weathered:

- In April, 2006, Timor-Leste experienced a political and social crisis. This "situação" has resulted in internally displaced persons and a widespread sense of insecurity among the Timorese. Due to the political crisis, Peace Corps closed its office and USAID recommended evacuation of its staff and contractors.
- Between 2006 and 2007, there continued to be sporadic violence and internal displacements. At one point in Dili, there were IDP camps in multiple venues across the city and an increase in the armed military patrols, which added to the overall tension.
- There was an election in which the ruling party changed and thus a new Health Minister in October, 2007 as well as line staff changes.
- One of the key rebels, Alfredo, was reputed to be at large in Same, resulting in heightened military action there. Consequently, the HAI staff posted in the district had to return to Dili.
- On February 11th, 2008 assassination attempts on the President and Prime Minister severely wounded the President. This resulted in two months of curfew which disrupted travel to the field.

Throughout all this, the HAI program continuously adapted and revised and moved the program forward. HAI expatriate staff elected not to evacuate when most other international NGO staff did so during the 2006 situation, staying to support the crisis efforts as well as they could. An important impact on HAI efforts came with the Ministerial change, as that caused changes to the head of the MCH division and the Health Promotion unit, both key sections for HAI. As a result of this change, HAI is renewing its efforts to develop a collaborative working style with the new MCH head. HAI has already done so with the new head of the Health Promotion Unit, who was in fact so pleased with HAI technical assistance that he made a job offer to one key HAI staff.

As previously stated, the health sector has attracted significant investment from some very large donors, including AusAID and the World Bank. HAI has relatively few fiscal resources but a very large footprint in terms of technical capacity and trust from counterparts, though they have had to continuously negotiate a seat at the table when other resources swamp the sector. At present, HAI has been successful in this negotiation, thanks in large part to the diplomatic skills of the Country Director and support from HQ.

G. CONCLUSIONS AND RECOMMENDATIONS

During this evaluation, it became apparent that HAI has achieved the status of being an external agent of the MOH in implementing the national health platform. HAI has been invited to provide technical assistance and support to every major health initiative promoted by the Ministry. Its core technical staff, both national and international, have been entrusted with all or part of major development tasks, including establishing standards, developing messages and creating training curricula. As a partner with USAID and the government of Timor-Leste, HAI has been an able agent for creating positive change and meeting the objectives of improving maternal health in Timor-Leste. Because of the intensity of its process and the practice of working within the framework of national initiatives, HAI has been delayed in fully meeting its objective of improving newborn health. It has accomplished certain fundamental newborn activities, such as contributing to the development and approval of newborn materials and standards, but advocacy efforts have fallen short. One other factor accounting for this delay is that HAI's contribution to many national initiatives not originally in its work plan has taken time and resources.

Data from the KPC survey done in June of 2008 indicates that HAI has met or exceeded most of their objectives, for example increasing the percent of mothers with children age 0-23 months who received one or more antenatal care visit from 50% to 82% and more than doubling the percentage of women who deliver with a skilled attendant from 15% to 32%. An objective that still needs further pursuit is the distribution of Vitamin A, which achieved 44% rather than the targeted 60%, but which did demonstrate a positive trend since baseline was 28%.

Results for indicators of improved newborn care were of a mixed nature. Exclusive breastfeeding was reported by 68% of women who had an infant less than 6 months of age, far exceeding the target of 45%. Results were distressing for the other indicator of improved newborn care, recognizing signs of newborn illness. Out of a target of 50% of mothers, only 2% of mothers could cite three or more serious symptoms of newborn illness warranting consultation with a health professional. However, fully 88% of mothers were able to identify at least one sign, with fever the sign most frequently reported. This gap was likely the result of the project's lack of success in getting district midwives trained in newborn care (as previously discussed).

The key results are many. In addition to supporting the implementation of the national MCH program, HAI built a niche by serving as the technical resource for other foundations and groups. As one informant stated, "they do the hard yakker[10] of research and quality control and then we adapt and use their stuff". HAI can attribute its program interventions progress to the following:

- Development and funding of the Maternal Child District Program officer position within the national health staffing structure,

[10] In this direct quote, yakker is an Australian term for hard work.

- Development of key reproductive health and maternal child messages including the use of skilled providers, immediate and exclusive breast feeding and seeking antenatal care.
- Through field research, careful assessments of health facilities, anthropological beliefs influencing birth outcomes, and Emergency Obstetric Capacity, among others.
- Innovative media for transmitting messages, including two films and one street drama, as well as a host of radio spots and the photo cards.

Constraints that have had an impact on how much HAI could accomplish include the following:

- A volatile political situation that resulted in curfews, internally displaced people and assassination attempts. Despite this, HAI never evacuated its staff, even in the worst of times, for which counterparts at the Ministry of Health were grateful.
- A change of government that, while an important democratic milestone, affected the day to day implementation of activities, reducing the availability of government counterparts during the transition. Further change in the civic structure, from district to municipalities, is also expected to have some impact on how the project is implemented.
- Change in identified partners, such as Peace Corps volunteers who left the country in 2006. In addition, TAIS, who was an increasingly important partner in the latter part of the project, revised some of its strategic objectives which had an impact on project implementation.
- The doubling of the program budget when HAI won the family planning grant. While a welcome addition to resources, this grant also carried with it the unexpected impact of taxing the human resource and management systems that HAI had in place.
- Change in the Ministry of Health which required renewed efforts to cultivate personal relationships crucial to getting work done.

Best practices for the project include the following:

- Careful selection of senior technical staff and investment in the development of their skills; making senior staff a resource available to the Ministry of Health.
- Accepting direction, guidance and pacing from government counterparts, even at the risk of slowing program implementation. Ultimately, the payoff was that each of HAI's efforts became part of the national fabric instead of being parallel activities.
- Research and assessments completed, including extensive community consultation, before developing the materials used in health messages and clinical standards.
- Extensive use of videography and photos as the most appropriate medium for transmitting health messages when appropriately reinforced by trusted sources.

Based on these findings and the assessment of data available, some key recommendations are listed below. These are not exhaustive but pinpoint certain vulnerabilities to be addressed that will move an already excellent program to yet an even higher level of technical and programmatic functioning.

1. **Rethink the approach to district representation for the delivery of technical assistance**. HAI has experimented with different models for managing the district workload. They have had resident advisors in Same and they now have each technical officer responsible for supervision of two districts. What is certain is that over the foreseeable future, work at the district and village level will continue to be the national focus. HAI will need to constantly monitor its deployment of staff to ensure that they are optimizing resources.

An important issue here is that Ministry of Health district staff are often called up to Dili without HAI being aware, so that when HAI staff go out to the districts, they sometimes find key counterparts missing, reducing the efficacy of their visits. HAI is extremely lean in its organizational structure. With the expected continued emphasis on district level, they might need to consider supporting the placement of more staff at the district level. The staff could either be national or regional[11] but they should have clinical and technical skills necessary to provide support to the counterparts.

2. **Increase advocacy at the national level for ownership of the proposed newborn interventions.** Despite sound technical assistance and multiple proposals for various kinds of newborn interventions, including training and materials development, it appears there is not yet be a significant level of ownership for the newborn program. HAI has already begun to address this through field based modeling of technical skills but also need to persist in raising this with the Ministry. There are regional meetings under Saving Newborn Lives that could possibly galvanize key decision makers at the Ministry to move ahead on this. At a minimum, the trainings need to go forth as soon as possible.

3. **Continue the integration of the reproductive health and maternal health programs and continue to emphasize the need for child-spacing as part of antenatal and post-natal care.** Consider refining the target audiences as many older women (>35) already have basic knowledge about contraceptive methods because of the Indonesia programs, while many younger women who became of reproductive age post-Independence, have more limited knowledge and a greater fertility horizon.

4. **Develop communication materials to help with the group discussions after showing the film <u>A Woman's War</u>.** Most of the informants feel this film is making a real

[11] In discussing this idea with MOH counterparts during the evaluation, the team asked if Indonesian midwives would be politically palatable. The answer was "yes, that Timor-Leste recognized Indonesian midwives as a potential large pool of qualified candidates who could provide support in the interim, until the national work force expands and grows stronger technically." This is useful information because USAID Indonesia has invested significant resources in improving the quality of midwives and there exist excellent midwives in Indonesia who should be considered as candidates to provide technical assistance.

difference in knowledge of the good health practices surrounding pregnancy and delivery. HealthNet, who has aired the film in four districts, feels that there should be a three month post-screening follow-up to reiterate the messages. They also feel that there should be materials available that facilitate the viewing experience, particularly for people concerned about the depiction of a C-section or whether the newborn survived, clarifying any misperceptions after viewing the film. HAI should explore what is possible because this film is a key channel for the dissemination of important messages.

5. **Ensure opportunities within HAI to provide senior level skills development for national staff.** HAI reworked job descriptions in December of 2007 to reflect the greater responsibility expected from senior national staff. However at the same time, some staff do not feel that they yet have the necessary skills to perform to the best of their ability. In particular, they would like to have access to either materials or training that will boost their supervisory and management skills. Management Sciences for Health (MSH), a USAID contractor, has significant amounts of materials (including free case studies and manuals, as well as leadership training programs) that support management and supervision techniques within the context of a developing country and could be contacted as a resource.

6. **Reassess the roles and functions of Country Director**. With the growth of HAI as an institution in Timor-Leste, it is too much to ask any one individual to continue doing the two functions of Country Director and Program Manager, particularly because the functions and roles of the Country Director are increasingly complex. HAI has already begun to make changes in the management structure of the organization; now they need to do so in a less ad hoc manner, with the goal of creating a management structure that can support the greatly increased technical portfolio. Options for HAI to examine include:

- Hiring more staff at the senior level, such as a community advisor, which would free the Country Director from some of the programmatic functions,
- Looking within its current staff to see if internal promotion is a possibility,
- Reviewing the job descriptions of the current staff to determine if they can have increased supervisory accountability within their current roles, again freeing the country director from some of the programmatic functions,
- Reviewing the support functions provided to the program from HQ to determine if re-aligning those would assist in re-balancing the work load in the field.

7. **Determine the best way that HAI can contribute to the national data base and HMIS**. This must be done to avoid duplicate reporting but also to respond to criticism that HAI does not share data enough. HAI can continue to contribute to the dialogue on national indicators and also institutionalize a system so that all report and survey findings are presented and acknowledged by the Ministry. At present, HAI feels that much of its information is available within the Ministry but perhaps not adequately identified as coming from the project sources.

8. **Obtain approval and a new Memorandum of Understanding with the Ministry of Health** for activities planned for October 1, 2008 through the end of 2010.

9. **HAI should ensure that professional staff are equipped with a lap-top**. Using computers in the 21st century is no longer a luxury but rather a necessity. A minor logistics issue surfaced during the evaluation on the availability of computers. Given that the HAI staff need to write many reports on field visits and supervision, do data analysis and constantly update best practices through awareness of research, they should be equipped with laptop computers. This is also an investment in the future sustainability of the program as it will improve the skill and facility of the technical staff and allow them to compete for jobs.

HAI will take these recommendations and lessons learned and share them with the greater development community. They will do so in the following ways:

- Engage colleagues from the Department of Global Health at the University of Washington (UW) in discussion, as HAI is closely affiliated with this program.
- Use the HAI staff active involvement in the American Public Health Association, the CORE group, and the Global Health Council as avenues for dissemination to present experiences in the Timor-Leste project to the global public health community.
- Give guest lectures to several different UW classes annually that draw on the experiences of Timor Leste.
- Use the Timor-Leste project as an example of best practices in promoting maternal and newborn care in the course entitled "Maternal and Child Health in Developing Countries," which is taught by the HAI Deputy Director, and one that will continue in future years.

The potential for scale-up of this project has already been proven by the ready national-level adoption of many initiatives piloted by HAI. Because all of its materials and program efforts take place within the national development channels, the program is inherently scaleable. Though there is limited dependence on HAI staff to lead supervisory efforts, government staff carry out much of the day to day implementation. In addition, current HAI staff are expected to continue to hold seminal roles within the national health structure and thus continue to apply their skills to the further promotion of maternal and newborn health.

In conclusion, HAI has run a tightly focused but flexible project that has improved the status of maternal/newborn health in Timor-Leste. HAI's cadre of national technical advisors will remain a long lasting resource for the nation, based on a solid reputation for collaboration and coordination. This management style has earned HAI the trust of the nation's health advisors, resulting in HAI initiatives being integrated into all levels and all aspects of maternal/newborn health. Programs and materials developed with the use of HAI's technical assistance now underpin many of the country's health promotion activities. Overall, the program has been an excellent use of resources in promoting USAID's child survival agenda and bettering the health status of women and children in Timor-Leste.

H. Annexes

Annex 1. Results Highlight: The Role of Video in Behavior Change

HAI's baseline study of maternal health practices in Timor-Leste found a strong preference for home births and lack of appreciation for the need for skilled birth attendants. These were among the behaviors that HAI hoped to change using a vigorous media campaign as its strategy to educate the larger community on good health practices. The innovations arise in how they made the culturally-relevant film as the centerpiece of the campaign, reflecting key messages that also are presented via other modes, and how they made it available to communities through facilitated public screenings.

HAI engaged Max Stahl, a renowned international film maker, to create the film *Feto Nia Funu*, The Women's War. His film team comprised young Timorese and they built a foundation of trust and understanding with the subjects, gaining extraordinary access to shoot scenes of women giving birth. Using a film-maker of such a caliber elevated the interest in the film and provided immediate credibility. HAI engaged a local NGO to screen the film and to provide follow-up discussion groups for the community to clarify the key messages. At present, HAI has shown the film to over 8,000 adults, other adults have also seen the film under the auspices of such groups as UNIFEM. Although explicitly not a target audience, over 3,000 children have seen the film out at the district level.

With this wide distribution, the Minister of Health was concerned about community reaction to some scenes and asked HAI to do an evaluation as to audience reaction and recall. In May, 2008 findings from the evaluation included recommendations to cut some scenes, particularly those relating to the Cesarean birth[12]. The Minister of Health has indicated that he would like to see those changes and HAI agreed as a way to eliminating potential problems in the field. HAI staff also think that a slightly shorter version will engage the community more. The film-maker feels editing will reduce the integrity of the film. For the record, HAI disagrees with him on this issue and intends to go ahead, using another videographer. Counterparts from the local NGO HealthNet, who have been present during most of the screenings, maintain that the reaction to the film has been very positive although they admit there have been isolated incidents of shocked response, particularly from the older generation. HAI will continue to monitor the impact on audiences and also monitor for any backlash from groups that don't benefit from the coordinated group discussions.

The evaluation of April/May 2008 attempted to determine the impact of the film, as did a sub-set sample analysis of the endline survey done in July, 2008. Both instruments admit to significant limitations in the statistical analysis done. Given that data are drawn from a sample of only 77 people surveyed who saw the film (or less than one percent of the

[12] The issue was confusion among women in the audience who were frightened that if they also went to a facility, they would end up with a Cesarean birth. This hospital surgical delivery was so far removed from their normative experience they had trouble processing it and understanding the key message, which is that when complications happen, babies lives can be saved by immediate intervention.

people who have viewed the film), the caveats are reasonable. Nonetheless, there are some intriguing ideas. These include:

- Many of the key messages were recalled appropriately, with the exception of not bathing a baby immediately after birth and why unclean tools for cutting the umbilical cord can cause infection.
- Among women who had a baby after seeing the film, the indicators are consistently higher for number of ANC visits, skilled birth attendance, giving birth in a facility, breastfeeding colostrum, no prelacteal feeds, and getting post partum care.

Despite the need to cut some of the scenes to conform to Timorese experience, this film remains a very valuable tool for both education and discussion. Because it is framed within the Timorese context, the audience is left with no doubt about what changes they can make to promote healthier pregnancy and delivery. Like a stone in pond sending out ripples, HAI hopes the impact of this film to be far and wide.

Annex 2. Publications and Presentations

A journal article focusing on the project's use of culturally-relevant information to promote 'birth-friendly facilities' is in draft form and will be submitted for publication in 2009. HAI staff plan to develop additional presentations and at least two manuscripts for publication as the fifth year of the project comes to a close. Analysis of data from the KPC survey, illustrating progress made by Timor-Leste in the six years since independence, is the likely focus of one paper. Another that is planned will describe lessons learned from the use of film in promoting maternal and newborn care as well as family planning. HAI staff feel that the experience of working with the MOH in this young country to assist in the development of new systems of care has the potential for providing extremely valuable information for other global health settings.

Presentations to date about the project include:

1. Western Regional International Health Conference. Portland, Oregon, January 2006. Susan Thompson, MPH. and Mary Anne Mercer, Dr PH. *"Challenges for Maternal and Newborn Care in a Post-Conflict Setting."*
2. Academy Health Annual Research Meeting. Seattle, Washington, June 2006. Domin Chan PhD (c). *"Prenatal Care Use in Timor Leste."*
3. CORE on-line live (Eluminate) presentation, March 2006. Mary Anne Mercer, Dr PH. *"Post-Conflict Challenges to Maternal and Newborn Health in Timor-Leste."*
4. Hospital Improvement for Children in Developing Countries. Denpasar, Indonesia, January 2007. Ingrid Bucens, MBBS, FRACP. *"Audio visual film on maternal and newborn health in Timor-Leste."*
5. Northern Territory pediatricians Meeting. Darwin, Australia, 2007. Ingrid Bucens, MBBS, FRACP. *"A Woman's War."*
6. USAID Asian Near East Meeting. September 2007. Nadine Hoekman, MPH. "Integrating Child Spacing into Nation-level MCH Programs in Timor-Leste.
7. American Public Health Association, Washington D.C. October 2007. Mary Anne Mercer, Dr PH. *"Imagining life: Using film to improve the health of mothers and newborns in East Timor"*
8. American Public Health Association. Washington D.C. October 2007. Susan Thompson, MPH. *"Making Facilities Birth-Friendly in Timor-Leste."*
9. American Public Health Association. Washington D.C. October 2007. Andrew Bryant MPH. *"Maternal and Newborn Health Promotion through Community Drama in Timor-Leste."*
10. Western Regional International Conference. Vancouver B.C. May 2008. Alison Moore MPH candidate. *"Improving Maternal and Newborn Health in Timor-Leste: Birth-Friendly Facilities Program."*
11. Western Regional International Conference. Vancouver B.C. May 2008. Colleen Osterhaus, MPH candidate. *"Promoting Birth Friendly Facilities in Timor-Leste: A health communication project."*
12. 2008 Global Health Council Annual Conference. May 2008, Susan Thompson, MPH. Panel: Battle Zone: Reproductive Health of Challenged Populations in

Conflict and Refugee Settings. *"Increasing Community Demand for Child Spacing In Timor-Leste: The MOH as Partner."*

13. 2008 American Public Health Association Meeting. Mary Anne Mercer, Susan Thompson, *Using Film for Culturally-based child spacing promotion in Timor-Leste.* Poster at San Diego Meeting, October 27, 2008.

Annex 3. Project Management Evaluation

a. Planning

The planning process for the project was very inclusive and partners from the Ministry of Health at both the central and district level were significantly involved. In fact, the project does not really do a separate and independent planning process, instead choosing to follow the Ministerial guidelines for annual work plan development. Changes from the planning initially put forward in the DIP were at both the political and programmatic level. The DIP was predicated on a stable political environment which was not the case during the life of the project. Because of political insecurities, US Peace Corps pulled out within eighteen months of the project starting, which necessitated a change to the behavior change and IEC strategy. There was a greater emphasis on Vitamin A distribution in the DIP then was realized in program implementation but other groups took this on so women still benefited.

In addition, as the HAI team became more integrated into the Ministry, there were day-to-day demands on their time that were not strictly related to the overall implementation of the project but which would contribute to the overall betterment of the national health system. For example, the contributions to the development of national policy statements in reproductive health were not part of the DIP but certainly facilitated some of the maternal health interventions later implemented.

In the course of implementing this four year project, there have been strategies and activities identified early on in the DIP process which were not implemented. Activities not implemented include developing a relationship with the school health promotion staff. This did not in any way lessen the effectiveness of the communication efforts as the primary and secondary school curriculum development in Timor-Leste remains chaotic because of the multiple languages in use and would not have been a good venue. The project was also intending to capitalize on the strong religious institutions in place in Timor-Leste and while some initial efforts were made, more could have been done to identify opportunities within the existing church systems. At the same time, the project implemented many more activities than originally envisioned, particularly as they became more and more of a trusted agent of the Ministry of Health. These new efforts included support to the PSF and to SISCa.

There were really no gaps to the DIP; it was very comprehensive. What unfolded though over time differed from initial planning as an appropriate response to changing demands from the government, changing conditions in the field (i.e., departure of Peace Corps Volunteers) and continuous reassessment.

b. Supervision of Project Staff

Universally, the national staff interviewed for this evaluation said that the Project Manager and Country Director is an excellent manager. She is very admired by her staff; her ability to speak the local language and her interest in all aspects of the project have served her in good stead as a supervisor. International staff equally admired her as the program manager but some chafed under the centralized organizational structure. They

were more eager to have accountability and take on responsibility while the national staff were comfortable with a supervision strategy that involved significant amount of decision making retained at the top.
The issue is complex and is entwined in the growth of the program and ever increasing demands for program decision making, rather than any inherent weakness in personal skills. The issue is also one of balance. The Project Manager did devolve a certain amount of authority to one of her expatriate staff, but when her "style" seemed to be at odds with the needs of both the Ministry and national staff, the Project Manager wisely removed her from a management role. In other instances, ad hoc management decisions were made about organizational structures that in hindsight did not create the best management systems. Typically however HAI is addressing this issue with frank discussion and review of alternative approaches. Given that their institutional style promotes problem solving and collaboration, the evaluation team is assured that this issue will soon be resolved.

National staff who recently moved into a supervisory role identified continued professional learning opportunities in supervision skills as something they would need in order to perform adequately, recognizing that supervision is a skill and a learned behavior. They also stated they view the program director's supervision style as one they would emulate.

From the headquarters level, the supervision chain of command remains fairly loose albeit frequent. The HAI Director of Timor-Leste Operations and the Timor-Leste Program Advisor are well versed in what is happening at the project level and never feel as if there are management "surprises". There are regular calls and many e-mails and the supervisory approach is general engagement, brain storming and discussion of various strategies to be used in managing different field issues. This does not reflect a lack of trust in the project director; it merely reflects that in the "old days" of being a smaller organization, HQ staff had the luxury of staying fully abreast of each project because of personal interest as well as job description. Many of the HAI staff have noted that this model is probably not sustainable because of the institutional growth of the organization as a whole, which will force more delegation and independent decision making.

As mentioned above, this view of supervision actually mirrors the overall institution growth and supervision strategies of HAI as a whole. During the life-time of the project, HAI as an institution has consistently doubled its funding annually (largely because of PEPFAR money in Africa). Because of this growth, it is moving from a small group of tightly-knit colleagues and friends with informal and unwritten rules of management to the next stage of institutional development, which means standard operating procedures and delegation of authorities. The Director of HAI's headquarters operations, who was in Timor-Leste during the evaluation, spoke about managing the growth and creating systems as one of his primary challenges.

The program in Timor-Leste has also doubled, because of the second grant for child spacing and the other donor resources that HAI has been able to identify. Thus, while the

current supervision system worked for a "start-up project" a more decentralized supervision system, with the appropriate delegation of authorities, will need to be implemented to reflect the increasing complexity of the overall mature program. The Program Manager realizes that there should be changes in the supervision practices, as do her supervisors at HQ, and is actively engaged in reviewing her strategies.

c. Human Resources Management

The essential personnel policies and procedures of the grantee are in place although they are under review because of the extensive nature of the organizational growth. In general, despite some very tense moments because of national politics, the morale and cohesion of the working relationships are good among project personnel. They reflect the "one big family" approach to project structure, with staff sharing in the triumphs and woes of each other. During the crisis and curfew, staff morale was negatively impacted as there was a great deal of uncertainty, witnessing of violence and loss of belongings. However, because of the open-door policy for communication and the quick change in working hours to accommodate disruption, the overall impact was limited.

During the evaluation, another morale issue was raised. The Project Manager, who has excellent diplomatic skills and strong local language skills, has been unable to create a personal relationship with the new head of the MCH division, who was appointed in early March this year. This inability to connect is causing her much distress as she worries about what kind of impact this will have on program management. Their inability to communicate is well known enough that both counterparts in the Ministry and partners raised it when speaking to the evaluation team. Comments suggested that the tension was because of communication clashes based on culture.

Whatever is the root cause of the tension, what is clear from a management stand point, is that the Project Manager should consider relying on her senior national staff to do more interface with the Ministry to reduce this perceived friction. HAI staff, including the Project Manager, have a very strong standing and respect in the national community and this contretemps should not serve to disrupt that.

There has been minor staff turnover, primarily at the high level technical advisor strata. Staff who worked for HAI now work for TAIS the other USAID-funded project, and so continue their collaboration. Staff have also returned in a short term advisor role to the project or if still in country, retain an informal collaboration with HAI. In other cases, they go to the Ministry so they are not really lost to HAI and certainly continue promoting cooperation. In fact, HAI staff are so well regarded that there have been efforts made by the Ministry to recruit them now, instead of waiting to the end of the project but so far, staff have not left the project. Given that the second child spacing grant is now active, the plan to facilitate transition has been focused on switching staff from one project to the other, so staff will continue to have work to do for HAI until the anticipated closing date of 2010.

There are three of the senior technical staff who are enrolled in the basic Public Health program at the University and who are receiving some tuition support as a benefit from HAI for this. There is the hope that if they finish their degrees, some funding might be found through the University of Washington system to bring one or more of them to the US for advanced training, with the understanding they would return to Timor-Leste and use their new skills within the Ministry of Health or in some other capacity that would still contribute to the public good. This benefit is highly appreciated by the staff and positive intervention.

The drivers were one staff group who had a minor grievance. They wished to receive overtime pay for the extra time they work rather than the current policy of comp time. Because they perceive their hours to be fluctuating based on multiple variables, such as midwives delivering babies unexpectedly or floods or community demands, they feel they work significant extra hours. They are very clear they don't want compensatory time, they want overtime pay. This issue was raised with the country director during the course of the evaluation and she said she would discuss it with them and with HQ to review the policy. The HAI deputy director stated that it might have been policy resulting from the Mozambique program but that it was clear that every country should have policies in line with the national labor regulations. She suggested meeting with other counterparts to determine what their practices were and also bringing it up with the law office in Timor-Leste that HAI had just approached for administrative support.

One other compensation issue raised by the staff was whether HAI would follow the government lead if it decides to provide a "thirteenth month" bonus. HAI has looked to the Ministry of Health compensation systems as a guideline for salary levels in the past and should consider this bonus. If they are not going to adopt it, either because of resource constraints or because of institutional policy, they need to be very clear about managing expectations with staff.

d. Financial Management

HAI has managed its resources so carefully that they have approximately $250,000 remaining in the budget that they will spend on a "no-cost extension" for a fifth year of project implementation. These savings have primarily been accrued because there were political disruptions in the country which limited program implementation and because some of the contracted costs were less than anticipated. The cost savings have also come because HAI has received so much funding in Mozambique that they are able to reduce their overall institutional overhead rate by over six percent over the life of this project. HAI has also done a very good job of leveraging resources. Two of its center piece activities, the film on pregnancy and childbirth and the Birth Friendly Facilities, were both funded by obtaining resources from other donors.

At present the system for tracking resources is centralized in Seattle and within the Country Director position. Although the program has two national staff who are responsible for accounting and tracking expenditures, they referred the more macro budgetary questions either to the Country Director or to the Seattle office. This is a

weakness, particularly since the Office Administrator has good management skills. However, HAI recognizes this limitation and is working to change it. The Chief Operating Officer, Dan Chang, came out to Timor-Leste as part of the evaluation and worked with the local accounting staff to understand their capacities and their concerns. He is working to develop an overall institutional system that will allow authorized users to have access to "real-time" detailed financial information.

e. Logistics

National program staff reported that they sometimes had to queue to use a computer to write up findings from the field and that sometimes this resulted in them needing to work at home. When raised with the Deputy Director, she explored further only to find that one computer was kept locked up because it was thought to be so "expensive" and precious. HAI should ensure that each professional staff is equipped with computer access. Not only does this make sense in terms of every day program management but the development of computer skills is an essential part of capacity development in the 21st century. This issue was raised with Chief Operating Officer and he concurred without question. There are no other logistical issues of note found in the evaluation. The project has an adequate number of vehicles and a good management system for them.

f. Information Management

The subject of data and information management is quite complex in Timor-Leste. Since 2002, there have been multiple national health surveys, a census and a many project-specific data collection efforts done by NGOs. There will be another Demographic and Health Survey (DHS) in 2009 and data collection with improved validity and reliability remains a top priority for the Ministry of Health and agencies such as WHO. However, the overall HMIS system is still weak. HAI has worked at trying to improve the system by doing the following among other activities:

- Defining and codifying agreed upon indicators for reproductive health and maternal health in the maternal health working group.
- Developing a supervision form that collates data from reports submitted to the HMIS and verifying this against the registers that are in use at the community health center level.
- Compiling the findings from supervision into monthly reports that get shared with the Ministry of Health.
- Conducting evaluation and follow-up for each of the major behavior change initiatives.
- Using the MPH student interns to do evaluation and data analysis
- Hiring a staff person to create data bases and to analyze the data and then share that as appropriate with other donors and the Ministry of Health.
- Using the technical skills of the HAI Deputy Director in indicator development to inform the national debate on indicators.

The project did do special assessments and participated in those done by other organizations. Among some of the evaluations conducted were:

- An evaluation of the efficacy of the birth friendly facility as part of the overall national review of the maternal waiting room policy,
- An anthropological review and assessment of the film on pregnancy and child birth,
- An assessment of the impact of the drama performances as a media tool
- Final evaluation KPC survey

The KPC survey was done in conjunction with the staff of the Bureau of Statistics who provided excellent technical guidance. It was viewed as a learning exercise for the project staff and was a good opportunity for them to understand how data inform the program.

One example of how evaluation affected program management is the use of the findings from the film. The evaluation of the film is resulting in changes to how the film is showed and what supporting counseling is accompanying the film screening. This is to mitigate some public discomfort with scenes detailing c-sections while not diminishing the importance of having access to emergency services. The project has just renewed its efforts to do maternal and neonatal death audits and will use that data to guide practice. For example, one of the very preliminary findings is that women who are multiparous are experiencing more of the mortality outcomes; to prevent this in the future, there might be a greater emphasis on post-natal contraceptive use for women who have already delivered four or more children.

All the data that are collected by HAI are intended to be used at the national health level. However, there seems to be some confusion over how this information is transmitted to the central level. HAI feels that since the results of the supervision visits are already included within the regular district level reporting to the Central level, there is no need to write parallel reports to present to the Central level. However, the Central level was very clear they wanted additional reports, for example a memo on what were the KPC survey outcomes, in order to feel fully informed. A number of informants voiced the opinion that HAI data were more reliable and more carefully collected and thus would be more valid.

g. Technical and Administrative Support

Technical support for the project has been sufficient and well planned. The project has judiciously used external technical consultants, such as the behavior change consultant for the flash cards. The long-term advisors mentioned they liked the fact that headquarters was “field-centric” and thus provided a great deal of support to the program via email and telephone. The HAI Deputy Director allocates approximately 15-20% of her time to the Timor-Leste program, while the Timor-Leste program advisor works 40% for the program. There are usually two or three field visits a year to the program, and the Deputy Director and program advisor alternate who goes to the field, depending on the program needs. The project has also benefited from the internship program that the University of Washington has put into place. They have supported six students in the field. Among the activities that benefited from student involvement include:

- The evaluation of *Bibi Bulak* drama performance
- The evaluation of the Birth Friendly Facility

- Qualitative evaluation of the use of the HAI developed photo-cards and posters by the PSFs
- The development of a short video on Birth Friendly Facilities
- The KPC survey as part of the final evaluation

h. Strengthening the Grantee Organization

As previously stated elsewhere, HAI as an organization is undergoing significant institutional expansion and is in a major development phase. They were operating in two countries and they now operate in four countries; they have also increased their funding so much that they have reduced their overhead rate. This growth means that the informal operating style of the organization is giving way to a more formal management process, which is line with the current growth. It is not without growing pains, as staff begin to realize that there are now more procedures and rules to follow. However, the organization is clearly cognizant of these issues and has been proactive. They actively recruited the headquarters operations director, which was a new function in 2006, and they are looking at systems upgrades that support the financial, administrative, human resource and logistic functions of the organization. They recognize that the field staff are critical in the successful implementation of programs and that discussion between regions is very important to facilitate. Within the last year they had a headquarters meeting for regional staff from all the offices and this provided an opportunity for coordination and collaboration.

i. Management Lessons Learned

Among the management lessons learned are the following:

1. The organization is growing big enough and the Timor-Leste activities are extensive enough that the project needs to make the change from a "start-up" mentality to a "sustained growth" phase. This will necessitate a different organizational structure and the separation of senior management positions, such as that of the country director and program manager positions. Current recruitment efforts to replace a staff member who just left to attend medical school are focusing on finding an individual with management interest and expertise who could assist with this transition.
2. For every long-term technical advisor, there needs to be two counterparts identified. The first is a national staff member within the program who will be mentored and the second is counterpart with the Ministerial structures.
3. HAI is very judicious steward of resources and sometimes, such as in the case of purchasing computers, they didn't spend money when they should have. Overall, they are to be congratulated for their frugal management of resources but they should also recognize that the growth from start-up to expansion does incur legitimate expenses.

The grantee still has approximately 12 months of program activities in Timor-Leste and will incorporate these management lessons as much as feasible into the remaining program. For example, they are recruiting an international advisor for the program slot vacated by the District Health Team Support and Program Monitoring Coordinator. They

are looking at the skill set necessary for this new advisor with the aim to allow the Country Director to reduce some of her direct programmatic responsibilities. The Headquarters staff is very responsive and will also be initiating changes based on the findings/proposals of HAI's director of headquarters operations. Given how well HAI adapts to changing circumstances, there is no doubt that they will take the findings from this evaluation and other input and use them to better shape their management structures.

j. Other Issues

There are two other issues of note. The first is that Timor-Leste is planning a revamped national strategy to create 13 municipalities, which will devolve power to local governments. Starting in 2009, there will be a different process for planning and budgeting. Some of the criteria used for allocating resources will include population, performance and geographic barriers/elements such as roads, private providers and Primary Health Clinics that are functioning. The intervention mix of health services will be decided at the Municipal Health Office while the central Ministry of Health will retain a regulatory and supervisory function. As HAI works at the district level (now to be municipalities), this new authority matrix will affect how they work. However, since this planning is still in its nascent stage and the government is just now elucidating the policies and strategies to implement this change, HAI will have to track this carefully to ensure that they retain a functional role at the decentralized level for promoting maternal and child health.

The second issue is that Minister of Health has created a different system for evaluating the inputs of NGO partners to the health sector in Timor-Leste. The circular N.04/2008/IVGC/MS outlines this framework for better coordination in the health sector. The intention of this act is to "align the input of development partners with country priorities and harmonize their procedures". There will be an annual health sector review, annual health sector planning and joint annual planning summit. There is also a new department within the Ministry of Health where the review and approval of each donor grant will happen. Without approval, no donor group or NGO will be able to proceed with their planned initiatives. HAI has an existing Memorandum of Understanding that will conclude as of September 30, 2008. They will need to submit their proposal for activities for October 2008 to September 2010 for approval under this new mechanism, notwithstanding that they already have funding from the US government and an approved work plan for next year.

Annex 4. Full Monitoring and Evaluation Table

Objectives	Indicators	Baseline Estimate [13]	Final Estimate First 4 Districts	Final Estimate All 6 Districts	Final Target	Explanation or Reference
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)	• # of MOH staff trained in program districts • % program district MOH facilities with trained staff	Unknown	84.6%	86%	90%	All currently working midwives have had training in ANC, however not all health facilities have a midwife present
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	• # MOH staff trained in program districts • % program district MOH facilities with trained staff	0%	8%	11%	90%	Challenges in country to get trainings scheduled for midwives. Only one training conducted to date
90% of MOH health facilities in the program districts will have effective systems to maintain essential supplies and materials for antenatal care	% of program district MOH facilities with 90% of essential supplies and equipment for ANC and safe delivery care 90% of the time	Unknown	79%	79%	90%	
90% of MOH health facilities in the program districts will have effective systems to maintain essential supplies and materials for postpartum/newborn care	% of program district MOH facilities with 90% of the essential supplies and equipment for PPM and NBC 90% of the time	Unknown	79%	79%	90%	

[13] Baseline data reported are for the four startup districts: Aileu, Manatuto, Ermera and Liquica

Objectives	Indicators	Baseline Estimate	Final Estimate First 4 Districts	Final Estimate All 6 Districts	Final Target	Explanation or Reference
Percentage of mothers 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%**	% of women with children age 0-23 months who received at least two tetanus toxoid injections during their last pregnancy in program districts	48%	69%	69%	70%	
Percentage of children age 0–23 months whose last delivery was assisted by a skilled health attendant in program districts will increase from **16% to 30%**	% of women with children age 0-23 months whose last delivery was assisted by a skilled birth attendant in program districts	16%	37%	32%	30%	
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%**	% of women with children age 0-23 months who received a Vitamin A dose in the first two months after their last delivery in program districts	28%	49%	44%	60%	HAI districts ahead of the national average for Vit A received of 25.9% per 2007 MOH report.
Percentage of children age 0–5 months who were exclusively breastfed during the last 24 hours will increase from **29% to 45%**	% of infants age 0-6 months who are exclusively breasted in program districts	29%	68%	67%	45%	
Percent of mothers of children under one year in program districts who can list at least 3 signs of serious newborn illness will increase to **50%**	% of mothers of children under on year in program districts who can list at least 3 signs of serious newborn illness in program districts	Unknown	2%	2%	50%	We found that 88% of mothers reported 1+ signs and 16% reported 2+ signs.

Annex 5: Work Plan

Objectives/Activities	Objective Met	Activity Status
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)	Yes	
Activity 1: Select and train DPOs **Activity 2:** Training needs assessment of MOH midwives **Activity 3:** Develop training for midwives in antenatal care focusing on communication and counseling skills **Activity 4:** Develop wall charts (training and clinical aids) for antenatal care consults **Activity 5:** Conduct/evaluate training to all midwives on antenatal care/ communication/counseling in program districts		**Activity 1:** Completed **Activity 2:** Completed **Activity 3:** ANC training conducted by MOH and WHO; HAI focused on communication and counseling skills via workshops in 3 districts but the majority of skill building was done through ongoing supervision visits, including modeling desired techniques in all program districts. This method was used because of the reluctance of the MOH to carry out an additional training due to heavy demands on MW time for multiple trainings (Safe motherhood, FP, EMOC, HIV/STI, Nutrition, Breastfeeding, IMCI, EPI etc etc.) **Activity 4:** Participated in the revision of the booklet (*Lisio)* given to all pregnant women as well as the clinic record/chart for pregnany. UNICEF/UNFPA printing. **Activity 5:** ANC training and evaluated conducted by MOH and WHO; Communication/counseling skills in HAI program districts conducted and evaluated through workshops in 3 districts and through ongoing supervision visits in all program districts. HAI also assisted the MOH and other partners in developing and carrying out an evaluation in 2006 of the Safe Motherhood trainings that had been done over the previous 4 years and in carrying out an EMOC assessment in 2008.

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	No	
Activity 1: Participate in national MCH working group to set standards for postpartum and newborn care **Activity 2:** Development of skills-focused training for midwives including a manual outlining national standards for postpartum/newborn care **Activity 3:** Conduct and evaluate skills-based training for postpartum and newborn care for all midwives		**Activity 1:** HAI key member of MCH working group and participated in the establishment of the national reproductive health strategy **Activity 2:** Completed **Activity 3:** A TOT for 8 trainers was completed and 21 district MWs have been trained in ENBC; however due to multiple training activities for health staff as well as other demands on their time, additional training has been delayed by the MOH, but is planned for 2009. 16 midwives and doctors from the national hospital participated in a training developed by HAI technical staff (with support from WHO) on Care of the Neonate.
3. 90% of MOH health facilities in the program districts will have effective systems to maintain essential supplies and materials for antenatal care.	In progress	Considerable headway made getting a system established, but work remains to assure follow-through
Activity 1: Conduct health facility assessment **Activity 2:** Participate in national MCH working group to assist MOH to develop essential supplies and equipment list **Activity 3:** Identify sources for funding of supplies / equipment not currently accounted for **Activity 4:** Develop MCH DPO supervision tool for health facilities		**Activity 1:** Completed June 2005 **Activity 2:** Ongoing participation in MCH working group and Basic Services Package working group **Activity 3**: UNFPA responsible for the provision of supplies and equipment for ANC care. HAI has been able to serve as an impt source of information re: needs based on findings from regular supervision visits **Activity 4:** Completed

4. 90% of MOH health facilities in the program districts will have effective systems to maintain essential supplies and materials for postpartum/ newborn care	In progress	Considerable headway made getting a system established, but work remains to assure follow-through
Activity 1: Conduct health facility assessment **Activity 2:** Participate in national MCH working group to assist MOH to identify essential supplies and equipment **Activity 3:** Develop MCH DPO supervision tool for health facilities **Activity 4:** Identify sources for funding of supplies / equipment not currently accounted for		**Activity 1:** Completed June 2005 **Activity 2: :** Ongoing participation in MCH working group and Basic Services Package working group and regular supervision **Activity 3:** Completed **Activity 4:** UNICEF responsible for the provision of supplies and equipment for newborn care. HAI has been able to serve as an impt source of information re: needs based on findings from regular supervision visits
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%	Yes	
Activity 1: Conduct qualitative investigation related to culturally-determined beliefs and practices re: pregnancy **Activity 2:** Train community-based groups (including women's groups, NGOs, Peace Corps volunteers) in promoting ANC in program districts **Activity 3:** Disseminate print materials, develop drama and broadcast programs for community promotion of ANC **Activity 4:** Develop community based systems for identification of pregnant women / notification to health facility staff **Activity 5:** Increasing accessibility of antenatal care by working with DHMT and facility managers to		**Activity 1:** Completed June 2005 **Activity 2:** Multiple approaches utilized to train community members, community groups, NGO staff throughout the life of the grant (PCV program in country shut down after social/political crisis in 2006). **Activity 3:** Drama developed and staged in program districts; photo cards and posters developed and NGO/MOH staff trained on their use; radio spots developed and disseminated. A major film developed and disseminated throughout 10 districts. **Activity 4:** Ongoing. This is one of the tasks of the PSF (new MOH program of community health volunteers). HAI assisting in the training of these PSF.

overcome current obstacles (especially provision of antenatal care at mobile clinics)		**Activity 5:** Ongoing supervision visits of district midwives. Supporting the MOH in getting *SISCa* (system of community based delivery of services) established throughout program districts.
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%	No (final estimate is 69%)	
Activity 1: Conduct qualitative investigation related to culturally-determined beliefs and practices re: pregnancy **Activity 2:** Training of community-based groups (including women's groups, NGOs, Peace Corps volunteers) on need for tetanus immunization as part of ANC in program districts **Activity 3**: Disseminate print materials for community promotion of safe delivery practices **Activity 4:** Develop drama and broadcast programs that includes community promotion of tetanus toxoid immunization		**Activity 1:** Completed June 2005 **Activity 2:** Multiple approaches utilized to train community members, community groups, NGO staff throughout the life of the grant (PCV program in country shut down after social/political crisis in 2006). **Activity 3:** Photo cards and posters developed promoting safe pregnancy and delivery developed. MOH and NGO health staff and community health workers trained in their use **Activity 4:** Drama developed and staged in program districts and radio spots developed and disseminated widely promoting antenatal care, including TT immuniz; Developed a film promoting safe pregnancy and delivery and postpartum care.
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%	Yes	
Activity 1: Conduct qualitative investigation related to culturally-determined beliefs and practices re: birth **Activity 2:** Train community-based groups (including women's groups, NGOs, Peace Corps volunteers) in safe birth promotion		**Activity 1:** Completed June 2005 **Activity 2:** Multiple approaches utilized to train community members, community groups, NGO staff throughout the life of the grant (PCV program in country shut down after social/political crisis in 2006).

Activity 3: Disseminate print materials for community promotion of safe delivery practices **Activity 4:** Develop drama and broadcast programs for community promotion of safe delivery practices **OR** activities to test strategies to increase access to trained birth attendants (birth-friendly health facilities, waiting homes) **Activity 5:** Meetings with community leaders to promote and develop birth plans and emergency transport plans **Activity 6:** Active participation in MCH working group		**Activity 3: :** Photo cards and posters developed promoting safe pregnancy and delivery developed. MOH and NGO health staff and community health workers trained in their use **Activity 4: :** Drama developed and staged in program districts and radio spots developed and disseminated widely promoting safe delivery practices; birth-friendly health facilities established in two program districts, with another 2 districts starting the process; developed a film promoting safe delivery practices **Activity 5:** Discussed with community in birth friendly facility sites. Collaborating with Alola Foundation on the piloting of "Suco Hadomi Inan ho Oan" (community preparedness to support pregnant women) in 3 communities in one program district **Activity 6:** Ongoing participation in MCH working group
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%	No (final estimate 49%)	
Activity 1: Training of midwives in program districts in integrated postpartum care, including vitamin A supplementation **Activity 2:** Community education on value for mother and newborn of postpartum visit, including Vitamin A supplementation in program districts **Activity 3:** Disseminate print materials for community promotion of vitamin A as a component of integrated postpartum care **OR** to improve postpartum care coverage (e.g. buddy system for accompany mother to HF, promote *fase matan*		**Activity 1:** Delayed by MOH **Activity 2:** Community education conducted throughout the life of the grant through multiple approaches including drama performances, radio, film, photo cards and posters **Activity 3:** Community health workers trained in the use of photo cards and posters promoting postpartum care

ceremony as opportunity for PPC, train CHW to assist home based delivery of PPC) **Activity 4:** Increasing accessibility of postpartum care by working with DHMT and facility managers to overcome current obstacles (eg trial home visits) **Activity 5:** 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)		**Activity 4:** As a part of superivion, HAI staff have been accompanying MWs to do home visits in order to model correct PPC as well to encourage their outreach to the community through these home visits **Activity 5:** HAI key member of MCH working group and participated in the establishment of the national reproductive health strategy
9. Percent of infants aged 0-5 months who are exclusively breastfed will increase from 29% to 45%	Yes	
Activity 1: Conduct qualitative investigation related to culturally-determined beliefs and practices re: postpartum/newborn care including breastfeeding **Activity 2:** Work with existing community-based groups trained in breastfeeding promotion to expand coverage of activities **Activity 3:** Dissemination of IEC materials for breastfeeding promotion **Activity 4:** Conduct skills-based training for postpartum and newborn care for all midwives in program districts		**Activity 1:** Completed June 2005 **Activity 2:**A key partner of HAI has been the Alola foundation who has trained and organized mothers breastfeeding support groups in 4 of the 6 program districts. HAI technical staff have also participated in trainings re: breastfeeding in order to be better able to provide technical assistance to MWs during supervision as well as to encourage them to support community based groups. **Activity 3:** Multiple approaches used for community health promotion of early and exclusive breastfeeding including drama performances, radio spots, film and photo cards/poster **Activity 4:** Delayed by MOH. In the meantime, HAI working to build the skills of MWs through supervision and "on the job training"/

10. 50% of mothers of children under one year in the program districts will know at least 3 signs of serious newborn illness	No	
Activity 1: Conduct qualitative investigation related to culturally-determined beliefs and practices re: postpartum/newborn care including breastfeeding **Activity 2:** Together with MCH working group develop a standard set of "danger signs" for newborn illness for use in health education in Timor-Leste **Activity 3:** Develop and disseminate written IEC materials for community-based promotion of newborn care including breastfeeding promotion **Activity 4:** Conduct skills-based training for postpartum and newborn care for all midwives in focus districts **Activity 5:** Training of community-based groups (including women's groups, NGOs, Peace Corps volunteers) about newborn care and signs of illness in program districts		**Activity 1:** Completed June 2005 **Activity 2:** Completed. Still need to be printed – UNICEF proposed to do so, some delay from MOH. **Activity 3:** Multiple approaches used for community health promotion neborn care and breastfeeding including drama performances, radio spots, film and photo cards **Activity 4:** Delayed by MOH **Activity 5:** Training developed by HAI, presented to MOH for approval in August 2008, still awaiting final approval.

Annex 6. Evaluation Team Members and their Titles

- Lucy S. Mize, Consultant and Team Leader.
- Marisa Harrison, Candidate for MPH degree, University of Washington,
- MaryAnne Mercer, Deputy Director, HAI-Seattle
- Susan Thompson, Timor-Leste Program Advisor, HAI-Seattle,
- Nadine Hoekman, Country Director and Child Survival Program Manager, HAI Timor-Leste
- Carmen Singh, HAI Reproductive Health Technical Advisor
- Antonia Mesquita, HAI FP Program Officer
- Paul Vasconcelos, HAI Health Promotion Program Officer

Annex 7. Rapid CATCH Table

Rapid Catch Indicators for all six program districts

INDICATOR	NUMERATOR	DENOMINATOR	PERCENT	CONFIDENCE LIMITS
Percentage of children age 0–23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)	19	147	**12.9**	(7.3, 18.5)
Percentage of children age 0–23 months who were born at least 24 months after the previous surviving child	157	233	**67.7**	(62.1, 73.2)
Percentage of mothers with children age 0–23 months who received at least two tetanus toxoid injections before the birth of their youngest child	243	301	**80.7**	(73.1, 88.3)
Percentage of children age 6–9 months who received breastmilk and complementary foods during the last 24 hours	38	45	**84.4**	(73.0, 95.8)
Percentage of children age 12–23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	52	80	**65.0**	(53.8, 76.2)
Percentage of children age 12–23 months who received a measles vaccine	103	136	**75.7**	(66.7, 84.8)
Percentage of children age 0–23 months who slept under an insecticide-treated net (in malaria risk areas) the previous night	182	301	**60.5**	(49.6, 71.3)
Percentage of mothers with children age 0–23 months who cite at least two known ways of reducing the risk of HIV infection	6	301	**2.0**	(0.2, 3.8)

Percentage of mothers with children age 0–23 months who report that they wash their hands with soap/ash before food preparation, before feeding children, after defection, and after attending to a child who has defecated	0	301	**0.0**	---
Percentage of mothers of children age 0–23 months who know at least two signs of childhood illness that indicate the need for treatment	81	301	**27.0**	(21.6, 32.4)
Percentage of sick children age 0–23 months who received increased fluids and continued feeding during an illness in the past two weeks	3	168	**1.8**	(-0.3, 3.8)

Annex 8: KPC Survey Report (annexed separately)

Annex 9. Evaluation Assessment Methodology

There was both a quantitative survey done as part of the final evaluation and a qualitative review. The methodology for the Quantitative Survey is briefly described below; a full elaboration of this survey is appended in the annexes.

A. Quantitative Survey

The questionnaire was developed using the KPC 2000+ Rapid Catch Survey as an outline and adding questions taken from the DHS questionnaire and other standardized surveys. Additional questions on media and on practices surrounding birth were developed by project staff. The survey covers antenatal care (including birth plans and tetanus toxoid immunization), birthing practices (including skilled birth attendance and immediate breastfeeding), postnatal care, family planning and contraceptive use, childhood immunization and illnesses, and exposure to media messages about a family planning, and contained approximately 80 questions. The survey was in English and Tetun, further translation into local languages Galolen, Mambae, and Tetun Terik was done by interviewers at the time of the interview. Consent was obtained from the participants and they were given the option to refuse, although few did.

This survey used 30-cluster sampling, with samples drawn at three levels: district (the primary sampling unit), *suco* or village level, and enumeration areas that have been previously defined based on a recent census. Women were included in the survey if they were between the ages of 15-49 and had a child who was under 24 months old. If two women fit that description within one household, we interviewed the mother of the youngest child. Data were collected between June 23rd and July 2nd by six teams that stayed in the districts while conducting the survey, with one day off on either Saturday or Sunday. The majority of the interviews took place in the morning and early afternoon.

Problems with the data collection process were relatively few. There was slight confusion over the vitamin A supplementation question for women since the samples shown to illustrate the vitamin were yellow and the type being distributed was often red, but we were able to clarify this difference after day one of surveying. There could be a slight possibility of underestimation, but we believe it unlikely.

Data entry was done with CS Pro 3.3, with the system designed by a staff member of the DOS. Data were compiled at the end of each day and all daily files were exported into Excel and checked for common coding mistakes that might have been made during entry. Additionally, because CS Pro does not allow for double entry, files were randomly examined to ensure correct individual data. Data cleaning was done in Excel before entry into Stata 10.0 IC for analysis.

B. The Qualitative Assessment

The field work for the qualitative portion of the evaluation was conducted from July 15th to August 1st, 2008 in the program districts. HAI selected as the lead evaluator a consultant who had done the mid-term evaluation and who had retained her familiarity with the Timor-Leste health program through repeated visits to the country in 2007 and

2008. This made it easier for her to track national programmatic initiatives (such as PSF) that had an impact on how HAI implemented activities.

Prior to going to the field, the HQ staff had drafted questionnaires to be used as an interview tool. Ultimately these were used as loose guide but in the one to one interviews, informants were free to raise issues they considered important. Field activities consisted of interviews with over 30 key informants, observation of training sessions and focus groups, field visits to different areas (Aileu, Suco Fahisoi, Aifu, and Hataudu) and community health centers. Most of the interviews were conducted in Bahasa Indonesia, which the lead evaluator has used for 13 years. Occasionally in the field, there was a need for translation into Tetun. It is a measure of the respect accorded to the Country Director that she was able to arrange interviews with the Minister of Health, as well as two of the other most senior positions in the Ministry of Health. This in itself was one of the evaluation findings, that HAI staff, both international and national, are considered essential resources by their counterparts in the Ministry of Health.

There were some constraints to the qualitative assessment in as much as the government was very involved in district budget planning and thus did not have as much time as previously anticipated (although they took every effort to be available, including Saturday meetings). One of the HAI senior national staff, a MNC program officer, was also not in-country, she was interviewed by email. The MOH's previous MCH director was deemed an essential informant; unsuccessful efforts were made to reach her in the field. There were some limitations to the strategy, which were a function of time and availability. The senior WHO advisor who is a well known advocate of HAI was not in-country and not all the MCH DPOs were interviewed. Nonetheless, given that the information received was consistent, the team was satisfied they had reached out to enough people. Overall, the information provided by all the informants was extensive, positive and appreciative of the efforts that the HAI team.

In addition to talking to people and observing activities, there was background reading done (see the list of materials consulted) and also examination of the behavior change materials that were printed and distributed. The evaluation schedule was very well planned, and it afforded the team ample opportunity to observe, review and question as part of their data gathering efforts.

After the field work was completed, a draft report was written and submitted for comments. The HQ staff and the Project Director were the primary reviewers of the draft and they submitted extensive comments. Phone calls and emails were exchanged to discuss the points in the comments and then a second draft was developed. The third and final draft resulted from another series of phone calls and detailed comments. Once the final draft was sent to Seattle, they completed the report with the required mandatory tables from USAID. The report was finished well before the deadline and in full accordance to the newly issued USAID guidance of July 2008.

Annex 10. People[14] Contacted During the Evaluation/ Materials Reviewed

Ministry of Health

1. Minister Nelson Martins, Minister of Health
2. Sr. Agapito da Silva Soares, Director-General of Health
3. Sr. Jose dos Reis Magno, Director of Community Health Services
4. Sra. Isabel Gomez, Head of the MCH Division, Ministry of Health
5. Sra, Luisa da Costa, Midwife, Aileu
6. Sr. Carlito Freitas, Head of the Health Promotion Unit
7. Dr. Jaime da Costa Sarmento, District Advisor
8. Ms. Norberta Belo, District Advisor
9. Dr. Ivo Ireneu da Conceicao Freitas, Head of the Partnership Program
10. Sr. Januario Mesquita, Interim District Health Director, Aileu
11. Sra. Amalia de Arajuo, Aileu District Program Officer, MCH
12. Sr. Hilariao Ramos Da Silva, Head of Ainero, District Health Services
13. Sra. Jacinta Barros, Ainero District Program Officer, MCH

UN Counterparts

1. Dr Rui Maria de Araujo, Special Advisor, Ministry of Health, Member of the Council of State, DRTL (former Minister of Health)
2. Dr. Thelma Olivera, MCH Technical Officer, WHO
3. Dr. Yuwono, WHO Advisor
4. Dr. Domingas Bernando, RH Program Analyst, UNFPA

HAI Staff

1. Jennifer Hulme, District Health Team Support Coordinator,
2. Dr. Carmen Indira, Reproductive Health Advisor
3. Antonia Mesquita, FP Program Officer
4. Paul Vasconcelos, Health Promotion Program Officer
5. Emelita da Cruz, CS Field Office Manager
6. Nadine Hoekman, Country Director and Program Manager
7. Mary Anne Mercer, Deputy Director, HAI
8. Daniel Chang, Director of Headquarters Operations
9. Rui Nheu, Head Driver and Logistician
10. Aquito Bernardo Bosco, Driver and Logistician
11. Astroberto Ferreira, Driver and Logistician
12. Joao Moniz, Driver and Logistician
13. Marisa Harrison, MPH Candidate and Rapid CATCH Survey Manager
14. Salvador Ornai, Health Promotion Assitant
15. Anna Greer, BCC Consultant
16. Terezhina Saramento, MNC Program Officer

[14] Other key counterparts were either away on summer leave or in an intensive district planning exercise that precluded them from participating in interviews. When possible, email consultation was used to capture their perspectives.

Partners

1. Lauri Winter, COP TAIS
2. Dr. Ingrid Bucens, Technical Advisor TAIS
3. Max Stahl, Film Maker
4. Ms. Tanya Wells Brown, International MCH Coordinator, Alola Foundation
5. Dr. Ross Brandon, CCT Health Advisor
6. Vitoria das Neves, CCT
7. Jose Rodrigues, CCT
8. Kiyoe Narita, CCT
9. Sarah Moon, Advisor (former HAI staff)
10. Francisco Da Costa Vieira, Director HealthNet

USAID

1. Brian Frantz, Program Officer
2. Dr. Teodulo Ximenes, Health Officer

Primary Materials Consulted

1. HAI Detailed Implementation Plan
2. HAI Mid Year Review
3. HAI Third Annual Report
4. Wayte, K, Barclay L, Kelly P. I*mproving Access to Care: Birth Facilities and Maternity Waiting Homes in Timor-Leste* (2007, unpublished)
5. Glazebrook, Diana. A*n Evaluation of Feto Nia Funu (the Women's War): A film about pregnancy and childbirth in Timor-Leste*, May 2008
6. Hobday, Karen et al. *Evaluation of the Work of the Alola Foundation's Mother Support Groups*, April 2008
7. Moore, Alison. I*mproving Maternal and Newborn health in Timor-Leste: Birth-Friendly Facilities, an Implementation Evaluation Report*, December 2007
8. Riggs-Perla, Joy. *Assessment and Review of Promoting Community Demand for Child Spacing Project*, November 2007