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2009 Outcome Monitoring Survey: USAID/Madagascar Programs

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Acronyms

ADRA	Adventist Development and Relief Agency
AED	Academy for Educational Development
ANC	Antenatal clinic
ARI	Acute respiratory infection
CRS	Catholic Relief Services
CSB	Centre de sante de base (Health center based)
CS	Cooperating Sponsor
DTP (DTP3)	Diphtheria, tetanus and pertussis (3rd dose)
EDSMD	Enquête Demographique et de Santé à Madagascar (or Demographic Health Survey)
FANTA	Food and Nutrition Technical Assistance
FP	Family planning
GH	Global Health
HIV	Human immunodeficiency virus
HPN	Health, Population and Nutrition, program
IEC	Information, education and communication
IMCI	Integrated management of childhood illness
IR	Intermediate Result
ITN	Insecticide-treated bed net
IPT	Intermittent preventive treatment
LLTN	Long-lasting treated net
LQAS	Lot quality assurance sampling
MCDI	Medical Care Development International
MCH	Maternal and Child Health
OM	Outcome Monitoring
ORS	Oral rehydration solution
PMA	Program management area
PMTCT	Prevention of mother-to-child transmission
PENSER	Population ENvironment SERvices Madagascar, NGO
PP	Post-partum
PSI	Population Services International
RH	Reproductive health
SD	Standard Deviation
SO	Strategic Objective
SP	Sulfadoxine-pyrimethamine
STI	Sexually transmitted infection
RTI	Research Triangle Institute
TT	Tetanus toxoid
USAID	United States Agency for International Development
USAID/GH	United States Agency for International Development Bureau for Global Health
VCT	Voluntary counseling and testing
WAZ	Weight-for-age z-score

A. INTRODUCTION

The USAID Bureau for Global Health (USAID/GH) and Bureau for Democracy, Conflict and Humanitarian Assistance/Office of Food for Peace in Washington, and USAID/Madagascar are supporting a variety of interventions in designated areas perceived as vulnerable, targeting the health and nutrition of the Malagasy population. To allow USAID to monitor and manage its key health activities an Outcome Monitoring (OM) Survey is organized each year in Madagascar. Madagascar commissioned a fourth year of the OM survey. FY09 is the first year of the new four-year Santenet2 project. Thus, the data collected through the OM Survey in FY09 will be used as the baseline data for the Santenet2 project.

OM Surveys collect data on the key Mission Strategic Objective (SO5) and Intermediate Result (IR) indicators and also allow for annual reporting to USAID/W required under the USG Foreign Assistance Framework. Data collected facilitates the tracking of program performance and the monitoring of the quality of the implementation as well as of the outcomes of services delivered. OM Surveys also help to identify under-performing services and interventions, and offer recommendations to overcome identified challenges.

USAID/HPN Program in Madagascar

USAID/Health, Population and Nutrition Program in Madagascar provides a set of services and products in the areas of Malaria, Maternal and Child Health (MCH), Family Planning (FP), Human Immunodeficiency Virus (HIV)/Sexually Transmitted Infections (STIs), Water and Sanitation.[1] The Mission strategic objective (SO5), "Increased use of selected health services and products and improved practices," is composed of four IRs:

IR1: Demand for selected health services and products increased
IR2: Availability of selected health services and products increased
IR3: Quality of selected health services and products improved
IR4: Institutional capacity to implement and evaluate health programs improved

IRs 1, 2 and 3 are covered by this OM Survey. IR 4 was not included as it is not easily evaluated using survey instruments.

[1] This year's OM survey in Madagascar was conducted as collaboration between FANTA and the Health Improvement Project (HIP). The HIP survey collected detailed information on water and sanitation issues, and reporting on those indicators falls under the respons bility of HIP. Those indicators are therefore not included in this report.

Indicators Collected by the OM Survey in Madagascar

The OM Survey is interested in three main sets of indicators. The first group of 17 indicators defined by USAID/GH is related to the key aspects of malaria, MCH and FP interventions. The second set of indicators is used by the Mission HPN Program to track SO5 performance for reporting to USAID/GH in Washington. The GH and Mission indicators are detailed in Table 1 and 2, below.

Table 1. Outcome Indicators - GH

Health area	Indicator
Malaria	**1**. % of households with a child(ren) 0-59 months with at least one ITN
	2. % of children 0-59 months in malaria-risk areas reported as sleeping under ITN the previous night
	3. % of women who received two or more doses of SP for IPT for malaria during their pregnancy with reference child
	4. % of children 0-59 months with fever in last 2 weeks who received anti malarial treatment within 24 hours from onset of fever
MCHN	**5**. % of women who gave birth who had a post-partum visit within 3 days
	6. % of newborns receiving essential newborn care
	7. % of women seen at antenatal clinic (ANC) at least 4 times during their pregnancy with reference child
	8. % of births attended by a doctor, nurse or trained midwife (excludes traditional birth attendants)
	9. % of children between 12-23 months of age who received their third dose of DTP by age 12 months
	10. % of children age 12-23 months receiving a vitamin A supplement during the last six months before the survey
	11. % of children 0-59 months who are more than 2 SD below the median weight for that age
	12. % of infants aged 0-5 months who were exclusively breast-fed in the past 24 hours
	13. % of children aged 0-59 months with diarrhea in the past 2 weeks who were treated with ORS (same as Mission's "% of children diagnosed/treated according to IMCI guidelines," which uses diarrhea treatment as a proxy.) [2].
	14. % of children aged 0-59 months with chest-related cough and fast and/or difficult breathing in the last 2 weeks who were taken to an appropriate health provider
	15. % of children aged 12-23 months fed according to a minimum standard of infant and young child feeding practices
FP	**16.** % of women aged 15-49.9 y who are currently married/in union and who are currently using a modern family planning method
	17. % of mothers of children age 0-11.9 m who stated a desire to wait at least 24 months to have another child or do not want to have another child

[2] Proxied by the "% of respondents stating at least two things to do when a child has diarrhea.

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Table 2. Mission-defined Outcome Monitoring Indicators

Health area	Indicator
Malaria	**1.** % of women who know how malaria is transmitted
	2. % of women who know that pregnant women and children under five are at greatest risk if they have malaria
	3. % of women who know at least two effective ways of preventing against malaria
	4. % of women who recognize two danger signs associated with malaria
	5. % of women who know the proper treatment to give to a child with malaria
	6. % of women who state knowing where to obtain a Long Lasting Treated Net (LLTN) nearby
	7. % of women who state that the price of the locally promoted LLTN is affordable
	8. % of women who state knowing the locally promoted malaria prophylaxis
	9. % of women who state knowing where to obtain the locally promoted malaria prophylaxis nearby
	10. % of women who state that the price of the locally promoted malaria prophylaxis is affordable
MCHN	**11.** % of women who received two TT shots (or equivalent) during their pregnancy
	12. % of women who gave colostrums to their child immediately after birth
	13. % of women for whom a clean delivery kit or equivalent was used at the birth of their child
	14. % of women who can cite at least 3 ways in which they can protect their health and the health of their baby during pregnancy
	15. % of women who state they took iron folate once a day during their entire pregnancy
	16. % of women who state they took Vitamin A less than 40 days after delivery of their child
	17. % of women who state knowing where to obtain Vitamin A nearby
	18. % of women who state knowing where to obtain iron folate \nearby
	19. % of women who can state at least one source of food rich in Vitamin A
FP	**20.** % of women who state knowing at least one modern family planning method
	21. % of women who state knowing about the contraceptive pill
	22. % of women who state knowing where to obtain contraceptive pills nearby
	23. % of women who state that the price of contraceptive pills is affordable
HIV/STI	**24.** % of women who state knowing about HIV
	25. % of women who can describe HIV correctly
	26. % of women who know how HIV is transmitted
	27. % of women who know two ways to avoid being infected by HIV
	28. % of women who state knowing about other STIs

The third set of indicators is used by USAID/Madagascar to monitor the performance of its partners in delivering health services at the health centers, *Centres de Sante de Base* (CSBs), which are supported by the program within the "Champion Communes" (Kominina Mendrika) context. Most of these additional indicators derive from the list of standards expected to be met by the health centers supported by a large bilateral implementing partner, Santenet 2. These additional performance monitoring indicators are listed in Annex 2.

Population and Facility-based Components

The OM Survey consists of two separate components. The first one is focused on the target population who receives services or other benefits from the services of USAID-funded health partners. The second component is focused on health centers where products and services are provided.

The **population-based component** aims to assess the **coverage and utilization of services and products** by target beneficiaries (SO level), as well as the **demand for and availability of services and products** at the household level (IR1 and IR2). The population-based component also collects data on the target population's knowledge about and access to products and services, as well as their health practices in specific program areas.

The **facility-based component** aims to assess the **quality of service provision** (IR3) by USAID partners at health centers. This component collects data on the management systems and on the human and physical resources availability in the health centers.

Both components cover the same program interventions except malaria, for which few activities are carried out through health centers. This is illustrated in Table 3 below.

Table 3. OM Survey: Mission Program areas, Population- and Facility-based Components

Mission program areas	Population-based component	Facility-based component
Malaria	√	
Maternal and Child Health	√	√
Family Planning	√	√
HIV/STIs	√	√

Mission Partners Covered by the Survey

The services and products supported by USAID/Madagascar are provided through a number of complex institutional arrangements:

- Santenet 2, the Mission's SO5 bilateral program implemented by RTI, provides services and products through its partners who are linked to CSBs, across the six provinces of the country (Antananarivo, Fianarantsoa, Toamasina, Toliary, Mahajanga and Antsiranana). The objective of Santenet 2 is to increase demand for health services and to mobilize the communities to engage actively in improving their own health through the "Champion Commune" approach. According to the contract related to this phase, 800 municipalities will benefit from the support of Santenet 2, either direct support or through its agreement with the partner groups listed below.

- Some partners, as Adventist Development and Relief Agency (ADRA) and Medical Care Development International (MCDI), received Child Survival grants to carry out focused interventions in their target Communes. Note that these two programs ended this year in September 2009.

- Four Title II-funded cooperating sponsors (CSs), ADRA, CARE, Catholic Relief Services (CRS) and Land O'Lakes are operating the SALOHI project in diverse geographic areas. Some activities incorporate health, population or nutrition concerns as part of their wider mandate. CARE and CRS, in particular, incorporate HPN activities as part of their food security mandate, in some of the same communes where Santenet 2 works.

- A series of local partners known as *Grants*, NGOs or associations recruited through an open tender, receive funds from USAID / Santenet 2 and work in Communes in coordination with Santenet 2.

- Population Services International (PSI) promotes the availability and use of FP and other health products (contraceptives, malaria prophylaxis, long-lasting treated nets (LLTNs), water purifiers and treatments for STIs) via social marketing campaigns and the organization of product distribution through private commercial operators. PSI also works to create demand and improve the quality of services though training, information, education and communication (IEC) at national level. PSI is not targeted by the OM Survey; however it has supported Santenet 2 and other organizations in the Communes where they were operating.

B. METHODOLOGY

LQAS

Lot Quality Assurance Sampling (LQAS) is the sampling method used by the OM Survey in Madagascar. LQAS is both a sampling approach and analysis tool that originated in manufacturing as a quality assurance method, and is nowadays increasingly applied in international health programs by USAID and its partners. The LQAS approach is based on binomial statistical theory: after selecting a small simple random sample from a given universe (a batch or *lot* of goods made by a machine, or a group/lot of beneficiaries targeted by a development intervention), sampled items or persons are tested for compliance with a given attribute. The outcome of this test is always dichotomous (e.g., pass/fail, Y/N, whether the attribute is present or not). Summing up the number of "passes" in the sample allows to determine whether the lot as a whole complies with a given standard, or benchmark (e.g. is the immunization coverage above 80% or not?). In the context of development interventions – with different activity areas – various aspects such as beneficiary satisfaction regarding the quality of services or adoption of recommended practices can be tracked with LQAS to assess whether expected performance levels are attained. Determining in which areas objectives have been –or not been met can help program managers to find how to improve overall program performance.

One of the key advantages of the LQAS approach is the small sample size required to generate sound and reliable statistics**.** By setting upper and lower benchmarks to reflect acceptable and unacceptable levels of performance, only a small sample (typically, n=19) is needed to assess whether the desired performance benchmark has been met. The small sample size required by LQAS facilitates the assessment of program performance by individual program management area (PMA), as well as the monitoring of program outcomes on an annual basis. Another benefit of LQAS is that it can be used for parameters estimation (mean, standard deviation) provided that LQA samples of at least n=19 are collected in four or more PMAs. This might occur, for example, if a survey collected the same information in the four districts of a given province, or among four different implementing partners of the same intervention. This design feature makes LQAS-based surveys a valuable alternative for the estimation of common coverage and prevalence indicators in public health, such as immunization rate or the adoption of a particular practice. Using this feature, the OM Survey allows the Mission to (i) check annually if the program objectives are achieved in each PMA, and (ii) derive estimates for overall program coverage or prevalence of key indicators to allow program managers to monitor progress at both the PMA and program levels.

LQAS also has limitations. With the small sample size it is not possible to disaggregate the data or conduct analyses such as controlling for confounding variables. The LQA sample is already maximally efficient, so any further stratification of that sample - by gender or wealth, for instance - or any reduction from the desired sample size because of non-response, will decrease the number of valid (Yes/No) answers to a point where the validity of the results rapidly becomes questionable.

Sampling methods

Simple random sampling (SRS) is usually recommended when using LQAS. To reduce survey costs, when OM was piloted in Madagascar in 2007, cluster sampling was used rather than simple random sampling. However, analysis of the 2007 data revealed that using cluster sampling leads to a higher than desired intra-cluster correlation and thus increases the risk of misclassifying a lot, or PMA, as pass or fail. Although this does not affect the overall parameters estimation, it was decided that OM should use simple random sampling rather than cluster sampling until further analyses are done. Therefore, the 2009 OM survey in Madagascar uses simple random sampling like that was in 2008.

The work of Valadez and others (1993; 2000) has established that a LQA sample of n=19, selected by simple random sampling (SRS), is sufficient to make a pass/fail judgment with alpha and beta error rates of less than 10%, when the upper and lower benchmarks have a 30 percentage point difference between them. However it is recommended that a minimum of 95 observations be made in order to draw statistically representative conclusions (point estimates, i.e. proportions with confidence intervals) across all PMAs. With six PMAs this would result in a total sample size of (19x6) 114 observations for each indicator being collected. Therefore the sample size used in this study was designed to meet sufficiently the rule of 95 observations. In others words, (114÷6) 19 observations were collected from each PMA for the population-based indicators. Thus, n=19 is would be the minimum sufficient sample size for each sample group in the OM Survey.

COMPONENTS OF THE OM SURVEY

As mentioned earlier, the OM Survey incorporates two components: a population-based component and a facility-based component.

POPULATION-BASED COMPONENT

Two key concepts drive sampling in the population-based component of OM: (1) the area covered is stratified into PMAs, and (2) sub-sample groups are used to represent the target populations for specific indicators.

1. Program Management Areas (PMA)

The use of PMAs allows flexibility in tailoring the sample so that it is representative of the program under review. As discussed previously, the USAID/Madagascar HPN Program is implemented by Santenet and its different partner groups in the six ex - provinces: Antananarivo, Fianarantsoa, Toamasina, Toliary, Mahajanga and Antsiranana. The HPN Program of USAID/Madagascar aims to support the Malagasy government in improving the quality of care in these provinces. As in 2008, each province is viewed as separate PMA for this year, 2009. However, Santenet and its partners did not cover 100% of the communes in every province.

Therefore, the LQAS «pass or fail» conclusion is made for the communes supported by Santenet and its partners in the province (see table 4), not the entire province.
However, a comparison of the results between 2008 and 2009 is not appropriate due to the expansion of areas of intervention through the introduction of the 500 new municipalities which resulted in a total of 800 municipalities. Given this fact, Santenet 2 recommended that the data collected from the 2009 OM survey be considered the baseline for the new Santenet 2 project. Therefore, the analysis of the OM Survey 2009 will focus on a description and a comparison between 2009 PMAs, rather than a comparison to previous years.

Table 4. Program Management Areas: Ex-province and Communes

PMA	Ex-Province	Number of the old communes of intervention	Number of the new communes of intervention	Total number of intervention communes
1	Antananarivo	32	92	124
2	Fianarantsoa	100	167	267
3	Toamasina	61	113	174
4	Toliara	107	62	169
5	Mahajanga	-	18	18
6	Antsiranana	-	47	47
	Total	**300**	**500**	**800**

2. Sample Groups

Each indicator collected in the OM Survey requires a specific group of respondents for which a sample of n=19 per PMA is required. For instance, the indicator on Exclusive Breastfeeding is collected solely from mothers of children 0 through 5 months of age, and 19 cases per PMA are needed from that sample group to measure the indicator adequately. Similarly, the indicator on Contraceptive Prevalence Rate is collected by interviewing women of reproductive age (15-49 years) who are married/in union, for which a new sample of n=19 per PMA is again needed. The indicators and their corresponding sub-sample groups are listed below (See table 5):

Table 5. Indicators Collected from Each Sample Group

Sample group	Indicators this Sample Group will Document
1. Mothers of Children 0-5m	Exclusive Breast Feeding rates
2. Mothers of Children 0-11m	Pre/Postpartum Care, including Birth Attendance, Essential Newborn Care, Pre/Postpartum visits, Vit A, TT, and Iron Folate
3. Mothers of Children 12-23m	Immunization and Vitamin A supplementation of children, Infant and Young Child Feeding
4. Mothers of Children 0-59m	Malaria, Illness management (diarrhea, fever, ARI), Anthropometry (weight for age)
5. Women of Reproductive Age (15-49yrs) who are married/in union	Family Planning, including CPR, Birth Spacing; Reproductive Health, VIH

The resulting combination of PMAs and sub-sample groups is illustrated in Table 6, with each cell representing the desired size of 19 from each PMA. This distribution allows the assessment of the performance of each PMA in meeting the benchmark for particular indicators; and provides sufficient data to generate the point estimate and a 95% confidence interval for each

indicator by aggregating data across PMAs for a particular sample group (n=114). This sampling scheme, therefore, combines the most desirable feature of LQAS, namely its parsimony, with that of means and confidence intervals estimation.

Table 6: Sample Matrix for OM/ HPN Survey in Madagascar

PMA	**"Starting Households" Primary Sample Groups**				**Total minimum sample size**	**"Overlap Households" Secondary Sample Groups** (will be interviewed in the starting households; additional households will be visited if needed)			
Ex-Province	Children 0-5.9 m	Mothers / children 0-11.9m	Children 12-23.9 m	Women 15-49.9 y and married/in union		Children 0-59.9 m	Children 0-59.9 m with diarrhea	children 0-59.9m with fever	Children 0-59.9 m with cough and fast/difficult breathing
Antananarivo	19	19	19	19	76	19	19	19	19
Fianarantsoa	19	19	19	19	76	19	19	19	19
Toamasina	19	19	19	19	76	19	19	19	19
Toliary	19	19	19	19	76	19	19	19	19
Mahajanga	19	19	19	19	76	19	19	19	19
Antsiranana	19	19	19	19	76	19	19	19	19
TOTAL	114	114	114	114	**456**	114	114	114	114

3. Sample Selection for the Population-based Surveys

In each PMA, and for all communes of Santenet 2 and its partners, 19 communes per sample group were selected using Proportional Probability to Size (PPS). The number of communes selected differs in each PMA because larger communes have a greater probably of being selected more than once (see Annex 1- List of sites visited).

In each selected commune, enumerators did a weighted simple random selection of the Fokontany ("villages") in the commune for each of the four primary sample groups: Child 0-5.9 m; Mother of child 0-11.9 m; Children 12-23.9 m; Woman 15-49.9 years and married/in union. The same process was repeated if the commune was selected more than once.

Once the enumerators arrived in the selected Fokontany, they used the "spin the bottle" method to randomly select the first four starting households. Subsequent households visited were chosen by proximity. If the four supplementary sample groups were found in the starting households; it was not necessary to visit additional households. If the supplementary groups were not found in the starting households, additional household visits were needed.

Only one reference child from the primary sample groups was selected per sampled household. If two or more children of the desired age range lived in the household, one of them was randomly selected as a reference child for the interview. The only exception to this relates to the secondary sample group - children aged 0-59.9 m, and children who had either diarrhea, fever or an acute respiratory infection (ARI) in the last two weeks. The "illness indicators" require that the child

manifest the illness within the last two weeks. Thus, a household was first selected randomly based on the age of a particular child and the specific questionnaire for that sample group of child was applied. Once completed, the enumerator could apply the specific questionnaire for children aged 0-59.9 m; then at the end, asked the mother if the reference child had suffered from one of the three illnesses in the past two weeks (note: if a child manifested symptoms for more than one illness in the last two weeks, only one of them—the most severe—was documented[3]). If yes, the questionnaire related to that particular illness was applied using that child as reference. If no, the mother was asked if another child aged 0-59 months and living in this household had suffered from one of the illnesses in the last two weeks. If yes, the questionnaire related to that particular illness was applied using the second child as reference; if none of the children in the household had shown a sign of illness, then only the initial interview, with or without applying of questionnaire for 0-59.9m, was carried out.

4. Analysis of Data for the Population-based Component

Data analysis takes advantage of the possibilities offered by the LQAS approach. The samples for each indicator are summed and weighted across PMAs to derive point estimates for the entire USAID program area; and each PMA is tested against the benchmark set for each indicator.

It is necessary to have benchmarks for the LQAS analysis in order to make comparison between the PMAs. Thus, the method for setting benchmarks for the previous years is repeated here: As in previous years, benchmarks were set by increasing the all-PMA average by 10 percentage points (ppts) and rounding to the nearest 5ppt increment. For instance, if the all-PMA average for an indicator is 63.3%, the benchmark is set at 75% (63.3% + 10% = 73.3%, rounded to the nearest 5ppt increment, i.e. 75%)[4]. The logic driving this approach comes from the peculiar difference between the cumulative probabilities approach used by the pass/fail test, versus the normal distribution approach used in setting the means and confidence intervals of the indicator: a LQAS test for a 60% benchmark, using a lower threshold of 30% and maximum Alpha/Beta errors of 10%, requires that only 9 of the 19 sampled units show a positive answer; this is easy to meet if all PMAs have around 60% of their cases (11 of 19) answering positively. Increasing by 10% is thus useful to distinguish between the PMAs that already meet the benchmark and those that might have a problem in reaching this projected benchmark. It is critical to clarify, however, that all PMAs meeting a benchmark does not eliminate the possibility that more work is needed on an issue. For instance, all PMAs met the benchmark for the indicator "% of women who gave birth that had a post partum (PP) visit within 3 days" yet the overall performance of 40% was quite low and more efforts are clearly needed in all PMAs on this front. Thus, what the analysis does is (i) to distinguish areas where general efforts are needed (as stated by the weighted average) to bring the situation to a more desirable level; and (ii) to identify which PMAs are most likely to lag behind on this front. Those two pieces of information are, however, quite independent.

[3] When more than one illness is present, it may well be that they are related—signs of fever may relate to ARI and not to malaria, for instance. OM Survey enumerators all had medical training and, therefore, were able to diagnose the main cause of the illness and thus, to appropriately focus their questions on treatment of the child.

[4] Note that ideally, the benchmark for next year would be established by the Mission or partners themselves—the 10% we applied across the board here was a stratagem used in a situation where those yearly targets did not exist. The discussions that follow the presentation of results to country partners should incorporate the setting of targets, thus clearing the way for agreed upon out year tests.

FACILITY-BASED COMPONENT

The sampling procedure for the facility-based component uses a standard LQAS approach: a simple random sample of 19 health centers was selected, from a list of CSBs located in 800 municipalities supported by USAID / Santenet 2. Such a small universe[5] made any further stratification of the sample impractical (e.g. division into PMAs), so only one lot was considered, representing the entire USAID program.

Analysis of the data retains the basic LQAS approach of testing whether or not the health centers, as a whole, pass or fail the benchmark set for them. That benchmark was set at 70% across all indicators for 2008, representing a 10 ppt increase over the 60% benchmark that was tested in 2007's Layers for HPN. This progressive increase was based on an agreement reached with SanteNet in 2006, stating that the first year would set a 50% target on all facility-based indicators; and this would roll up by 10 ppts per year thereafter. Since 2009 is the first year for the new SanteNet2 program, the benchmark is again set at 50%.

[5] There is usually one health center per commune. To the previous year difference the CSBS are randomly selected to represent that commune before the field data collection from an exhaustive list of the CSBs in the 800 communes while using the tool of selection in SPSS.

C. GH AND MISSION INDICATORS

Key Reporting Indicators

Results for the OM indicators requested by USAID/GH are listed in Table 7. Results for the indicators used by the USAID/Madagascar HPN Team to report on its activity to Washington are listed in Table 8. The report discusses the indicators and their associated results in Section D.

Table 7. GH-defined Outcome Monitoring Indicators

Health Area	Indicator	Means (Conf. Int.)	Discussed in
Malaria	**1**. % of households with a child(ren) 0-59 months with at least one ITN	72 (64-80)	D1.2
	2. % of children 0-59 months in malaria-risk areas reported as sleeping under ITN the previous night	62 (53-71)	D1.2
	3. % of women who received two or more doses of SP for IPT for malaria during their pregnancy with reference child	31 (22-39)	D2.2
	4. % of children 0-59 months with fever in last 2 weeks who received antimalarial treatment within 24 hours from onset of fever	18 (10-25)	D1.2
MCHN	**5**. % of women who gave birth who had a post-partum visit within 3 days	42 (33-51)	D2.2
	6. % of newborns receiving essential newborn care	47 (38-57)	D2.2
	7. % of women seen at antenatal clinic (ANC) at least 4 times during their pregnancy with reference child	58 (49-67)	D2.2
	8. % of births attended by a doctor, nurse or trained midwife (excludes traditional birth attendants)	59 (50-68)	D2.2
	9. % of children between 12-23 months of age who received their third dose of DTP by age 12 months	71 (63-80)	D2.3
	10. % of children age 12-23 months receiving a vitamin A supplement during the last six months before the survey	74 (65-82)	D2.4
	11. % of children 0-59 months who are more than 2 SD below the median weight for that age	34 (25-43)	D2.4
	12. % of infants aged 0-5 months who were exclusively breast-fed in the past 24 hours	60 (51-69)	D2.4
	13. % of children aged 0-59 months with diarrhea in the past 2 weeks who were treated with ORS (same as Mission's "% of children diagnosed/treated according to IMCI guidelines," which uses diarrhea treatment as a proxy.) [6].	33 (25-42)	D2.3
	14. % of children aged 0-59 months with chest-related cough and fast and/or difficult breathing in the last 2 weeks who were taken to an appropriate health provider	58 (49-67)	D2.3
	15. % of children aged 12-23 months fed according to a minimum standard of infant and young child feeding practices	54 (45-64)	D2.4
FP	**16**. % of women aged 15-49.9 y who are currently married/in union and who are currently using a modern family planning method	41 (32-50)	D3.2
	17. % of mothers of children age 0-11.9 m who stated a desire to wait at least 24 months to have another child or do not want to have another child	93 (88-98)	D3.2

[6] Replaced by the "% of respondents stating at least two things to do when a child has diarrhea".

Table 8. Mission-defined Outcome Monitoring Indicators

Health Area	Indicator	Means (Conf. Int.)	Discussed in
Malaria	**1.** % of women who know how malaria is transmitted	61 (52-69)	D1.1
	2. % of women who know that pregnant women and children under five are at greatest risk if they have malaria	27 (19-35)	D1.1
	3. % of women who know at least two effective ways of preventing against malaria	53 (43-62)	D1.1
	4. % of women who recognize two danger signs associated with malaria	52 (42-61)	D1.1
	5. % of women who know the proper treatment to give to a child with malaria	77 (69-85)	D1.1
	6. % of women who state knowing where to obtain a Long Lasting Treated Net (LLTN) nearby	53 (43-62)	D1.1
	7. % of women who state that the price of the locally promoted LLTN is affordable	68 (59-77)	D1.1
	8. % of women who state knowing the locally promoted malaria prophylaxis	62 (53-71)	D1.1
	9. % of women who state knowing where to obtain the locally promoted malaria prophylaxis nearby	71 (62-80)	D1.1
	10. % of women who state that the price of the locally promoted malaria prophylaxis is affordable	92 (85-98)	D1.1
MCHN	**11.** % of women who received two TT shots (or equivalent) during their pregnancy	46 (37-56)	D2.2
	12. % of women who gave colostrums to their child immediately after birth	84 (77-91)	D2.4
	13. % of women for whom a clean delivery kit or equivalent was used at the birth of their child	91 (86-97)	D2.2
	14. % of women who can cite at least 3 ways in which they can protect their health and the health of their baby during pregnancy	16 (09-23)	D2.1
	15. % of women who state they took iron folate once a day during their entire pregnancy	10 (03-17)	D2.2
	16. % of women who state they took Vitamin A less than 40 days after delivery of their child	37 (28-46)	D2.2
	17. % of women who state knowing where to obtain Vitamin A nearby	89 (83-95)	D2.1
	18. % of women who state knowing where to obtain iron folate \nearby	86 (79-92)	D2.1
	19. % of women who can state at least one source of food rich in Vitamin A	68 (60-77)	D2.4
Family Planning	**20.** % of women who state knowing at least one modern family planning method	93 (88-98)	D3.1
	21. % of women who state knowing about the contraceptive pill	66 (57-75)	D3.1
	22. % of women who state knowing where to obtain contraceptive pills nearby	51 (42-60)	D3.1
	23. % of women who state that the price of contraceptive pills is affordable	83 (74-91)	D3.1
HIV/STI	**24.** % of women who state knowing about HIV	96 (92-99)	D4.1
	25. % of women who can describe HIV correctly	32 (23-40)	
	26. % of women who know how HIV is transmitted	85 (78-92)	D4.1
	27. % of women who know two ways to avoid being infected by HIV	46 (36-55)	D4.1
	28. % of women who state knowing about other STIs [7]	N/A	-

[7] This indicator is removed of program Outcome Monitoring for the year 2008

D. POPULATION-BASED COMPONENT

The population-based component of the OM Survey includes data collected from 912 (114 x 8 groups) interviews conducted using an LQA sampling methodology in areas where USAID and its partners have activities. This section presents the point estimates on all indicators measured. It also tests PMAs for benchmarks established based on the point estimates (see Section B, Methodology, for more details).

Main conclusions

The population-based component of the OM Survey collected data on the population's knowledge of and demand for selected health services and products, and the knowledge of and adoption by the population of essential practices in key health areas.

Overall, respondents are able to cite correct answers about means of prevention and disease transmission. However, the results show that respondents had a lack of detailed knowledge, or provided wrong answers on some health issues. For example,

- People know the mechanism of transmission and the dangers of malaria, but a majority are unaware that both pregnant women and their babies are most at risk, and also many of the respondents cannot properly identify the signs of malaria in children.
- Women aged 15-49 are aware of the human immunodeficiency virus (HIV) and mode of transmission but few are able to correctly describe HIV and how to avoid HIV infection.

Given these findings the program is encourages to strengthen peoples detailed knowledge of health issues that they understand superficially. This will probably mean a change in the content of IEC strategies.

In general, respondents agree that the costs of health care products are affordable. Yet, availability is still a challenge for some products, for example, almost half of respondents do not know where they can get long lasting treated nets and oral contraceptives, particularly, PilPlan. Thus, further efforts are needed to ensure that products are available within a radius of 5 km and to reinforce with clear information messages on where to find the products in the community.

Regarding health practices, the data shows that many health practices have been adopted by the majority of the population with an acceptable indicator level:

- ANC practices and PP care.
- Practices related to the use of insecticide-treated bed nets.
- The practice of using modern contraception.
- The use of a clean delivery kit or new/boiled instruments.
- Adoption of healthy sexual behavior (decrease sexual intercourse with non-regular partners).
- Adoption of minimum standard feeding practices for infants and young children.

In spite of the noted improvements, it is observed again that behavior change remains a serious problem; the gap between knowledge and behavior persists. As an illustration: (i) mothers of children know that treatment is necessary for a child with fever but few children received the correct treatment. This is observed concerning the treatment of a sick child, no matter the illness; (ii) in ANC, for instance, women know they should take iron folate every day during their entire pregnancy, but very few do so; (iii) with respect to assistance at delivery, the number of home deliveries attended and followed by a qualified health practitioner is low; (iv) practices that used to be common in Madagascar— exclusive breastfeeding is a prime example—appear to continue to be declining ; (v) the use of any means of protection during sexual intercourse with non-regular partners (condom), (vi) finally, the vaccination coverage rates in DTC is deemed unsatisfactory, the same for the semi-annual distribution of vitamin A to children.

Thus, in some areas, the work needs to be reinforced; in others, it needs to be sustained as new cohorts of mothers and children come up and the need to inform and encourage them continues.

The PMA is defined geographically and based on the administrative delimitation of ex - provinces. The comparison between geographic PMAs is useful in suggesting where to direct further efforts. For instance, one of the PMAs is clearly lagged behind others on several ANC-Post Partum Care practices issues and on FP knowledge, whereas another, which performed well on all aspects related to infant and young child feeding (IYCF) practices and FP knowledge, did not perform on ANC practices during the first trimester of pregnancy and on HIV prevention knowledge. This highlights the benefit of examining, on a case-by-case basis, what needs to be done rather than applying blanket approaches to program operations in all PMAs.

The rest of Section D presents detailed tabulations of the results from the population-based component, accompanied in each case by a brief summary and set of recommendations. Results are presented in the following order:

- D1. Malaria
- D2. Maternal and Child Health
- D3. Family Planning
- D4. HIV and other STIs

The results for the facility-based component are presented in Section E.

D1. MALARIA

The population-based component of the OM Survey collected information on malaria from all households in the 0-59 month sub-sample group.

Conclusions and recommendations, followed by detailed indicator results, are presented for the following areas:

- D1.1 Information and Knowledge on Malaria
- D1.2 Practices in Malaria Prevention and Treatment
- D1.3 Benchmarks for PMA performance
- D1.4 Recommendations

Main Conclusions and Recommendations: Malaria

D1.1: Information and Knowledge on Malaria

- Knowledge on the mode of transmission of malaria is generally not satisfactory. About two thirds of respondents know the basic information on malaria: 60% know the cause of the disease; a significant proportion (40%) has mistaken beliefs about it.
- The level of women's knowledge on the how to get protected against malaria is very low. Only 6% are able to name spontaneously two or more ways to prevent malaria.
- Similarly, it is noted that two thirds of respondents (66%) recognize that the consequences of malaria are particularly serious for children. And less than one third of respondents (32%) believe that the consequences of malaria are absolutely worrying for pregnant women. Also, only 27% of respondents stated that the consequences of malaria are alarming for both pregnant women and children.
- The majority of respondents (84%) recognize that a child with a high fever requires medical attention. Although, 82% indicate that a child with fever (symptom of malaria) should be treated within 24 hours and 77% knew the correct treatment; it is noted that only half of respondents (52%) were able to identify two or more danger signs of malaria on a children.
- The respondents are generally aware of ITNs (90%) and malaria prophylaxis (62%). It is noted that PaluStop and SuperMoustiquaire products are recommended locally by USAID partners. The majority of the respondents (92%) believe that the price of PaluStop is affordable, and only 68% of them think the same for the ITNs. However, it is observed that the same proportion one of two respondents, know where to obtain these products nearby: 53% with MII and 52% with PaluStop.

D1.2: Practices in prevention and treatment of malaria

- The availability of ITNs in the households is quite remarkable. It is shown that seven out of ten households (72%) with at least one child under 5 years have one or more insecticide-treated nets (ITNs). According to the EDSMD 2008-2009, it is 58% at national level.
- Also, three reference children in five (62%) slept under an ITN the previous night. By logical deduction, more than eight in ten children (86%) living in a household with an ITN, slept under the mosquito net the previous night. However, mother sleeping with her child under an ITN is not a common practice as only half of mothers (54%) slept with the reference child last night.
- It is noted that only 39% of children who had fever the past two weeks have received the proper medicine. However, a small proportion of children (18%) received the treatment within 24 hours after the onset of the disease - in other words, half of children who had fever the past two weeks, received the proper medicine within 24 hours after onset. It is 20% with EDSMD 2008-2009.

D1.3: PMA Benchmark performance

- In general, at majority level of indicators related to knowledge on malaria (mode of transmission, prevention methods, individuals at risk, danger signs) has not reached the threshold in almost all PMAs. We noted especially that none of PMAs has reached the threshold on the percentage of mothers of children 0-59 months indicating that pregnant women are most at risk with malaria.
- Only one PMA, PMA2, reached the threshold on the level of knowledge on products (SuperMoustiquaire and PaluStop) recommended by USAID local partners . In addition, mother's level of knowledge about the place where one could find the products is not reached in almost all PMAs, five out of six PMAs.
- Respondents' knowledge level about the correct treatment for a child with fever was reached in three out of six PMAs. However, only one out of six PMAs has reached the threshold for children 0-59 months with fever that receiving antimalarial treatment within 24 hours after the onset of fever.
- The PMA1, PMA2 and PMA3 are struggling to meet the thresholds set on almost all if not all indicators related to the prevention practice and treatment of malaria. In contrary, the PMA4 succeeded on almost all indicators.
- However, it is noted worthy that five out of six PMAs have met the threshold for women who slept under an ITN during pregnancy of the child reference. In contrast, only one out of six AGPs has reached the threshold on the percentage of children 0-59 months with fever who received antimalarial treatment within 24 hours after the onset of fever.
- According to the availability of at least one LLTN for households with one / child (ren) of 0-59 months, the threshold is reached in only two out of six PMAs (PMA4 and PMA5).

D1.4: Recommendations

- A gap is observed between knowledge and behavior on certain aspects of the battle against malaria:
  - ☛ Knowledge of ITN and the availability and the use,
  - ☛ Recognition of the importance to initiate the treatment within 24 hours following the fever onset and the practice itself to a child with fever.

  Thus, strategies to strengthen the messages should be developed so that mothers can really put their knowledge into practice. If necessary, further study is required to identify the determinants of this situation which could be linked to the accessibility of the products or treatment as well as the lack of knowledge about danger signs of malaria in children, the time availability, financial constraints, etc.

- Particularly, and for all PMAs, messages on malaria should emphasize strongly and clearly the following points: 1) only the mosquito is the vector of malaria, 2) together, the pregnant woman and her child are at greater risks; 3) at least two preventive measures, effective and tailored by region, are known, accepted and practiced by mothers, 4) the main danger signs of malaria and frequently encountered in children are to be recognized by the mother.
- For all the PMAs, the program must intensively increase awareness among mothers on the importance of giving proper medications within 24 hours for children with malaria (persistent fever). However, the program should pay particular attention to the PMA1.

D1.1 Information and Knowledge on Malaria												
Indicators Collected		**Program-wide point estimates**				**Benchmark Set At (%)**	**Program Management Area (Y/N)**					
	Total n	**#**	**%**	**Confidence Interval Lower**	**Upper**		**PMA 1**	**PMA 2**	**PMA 3**	**PMA 4**	**PMA 5**	**PMA 6**
% of mothers of children 0-59 months who stated malaria is transmitted by mosquitoes only	114	70	61	52	70	70	N	N	Y	N	N	N
% of mothers of children 0-59 months who stated that children <5 y of age are at greatest risk	114	75	66	57	75	75	N	Y	N	Y	N	N
% of mothers of children 0-59 months who stated that pregnant women are at greatest risk	114	36	32	23	40	40	N	N	N	N	N	N
% of mothers of children 0-59 months who stated that both children and pregnant women are at greatest risk	114	31	27	19	35	35	Y	Y	N	N	N	N
% of mothers of children 0-59 months who know SuperMoustiquaire	114	103	90	85	96	100	N	Y	N	N	N	N
% of women who state knowing where to obtain a Long Lasting Treated Net (LLTN) nearby	114	60	53	43	62	65	N	N	Y	N	N	N
% of women who state that the price of the locally promoted LLTN is affordable	103	70	68	59	77	80	Y	N	N	N	Y	N
% of mothers of children 0-59 months who stated at least 2 ways to prevent malaria	114	7	06	02	11	15	N	Y	N	N	N	N
% of mothers of children 0-59 months who know the locally promoted malaria prophylaxis	114	71	62	53	71	70	N	Y	N	N	N	N
% of mothers of children 0-59 months who know where to obtain the locally promoted malaria prophylaxis nearby	114	59	52	42	61	60	N	N	N	N	N	Y
% of mothers of children 0-59 months who state that the price of the locally promoted malaria prophylaxis is affordable	71	65	92	85	98	100	Y	N	N	Y	N	Y
% of mothers of children 0-59 months who stated that high fever in a child under 5 years needs medical referral	114	96	84	77	91	95	N	N	N	O	N	O
% of mothers of children 0-59 months who can state at least 2 danger signs of malaria in children	114	59	52	42	61	60	N	N	Y	N	N	N
% of mothers of children 0-59 months who stated one should give treatment within 24 h to a child with fever	114	94	82	75	90	90	N	N	N	N	N	Y
% of mothers of children 0-59 months who know the appropriate treatment for a child with fever	114	88	77	69	85	85	N	Y	Y	Y	N	N

D1.2 Practices in Malaria Prevention and Treatment												
Indicators Collected		**Program-wide point estimates**				**Benchmark Set At (%)**	**Program Management Area (Y/N)**					
				Confidence Interval								
	Total n	**#**	**%**	**Lower**	**Upper**		**PMA 1**	**PMA 2**	**PMA 3**	**PMA 4**	**PMA 5**	**PMA 6**
% of households with a child(ren) 0-59 months with at least one ITN	114	82	72	64	80	80	N	N	N	Y	Y	N
% of mothers of children 0-59 months who state they slept under an ITN the previous night	114	71	62	53	71	70	N	N	N	Y	N	N
% of children 0-59 months in malaria-risk areas reported as sleeping under an ITN the previous night	114	71	62	53	71	70	N	N	N	Y	Y	Y
% of mothers of children 0-11 months who state they slept under an ITN during their pregnancy	114	87	76	68	84	75	N	Y	Y	Y	Y	Y
% of children 0-59 months with fever in last 2 weeks who received the appropriate medication during their illness	114	43	38	29	47	50	N	N	N	Y	N	Y
% of children 0-59 months with fever in last 2 weeks who received antimalarial treatment within 24 hours from onset of fever	114	20	18	10	25	30	N	N	N	N	N	Y

D2. MATERNAL AND CHILD HEALTH (MCH)

The population-based component of the OM Survey collected information on maternal and child health from various sample groups. Questions on antenatal care (ANC) and post-partum (PP) care, as well as a question related to early initiation of breastfeeding, were administered to mothers/caregivers of children in the 0-11 month sample group. Questions on exclusive breastfeeding were administered to the 0-5 month sample group. Questions on complementary feeding of the child, Vitamin A supplementation and immunization were directed to mothers of children in the 12-23 month sample group. Questions relative to the treatment of child illnesses and the child's nutritional status (weight for age), were administered for children in the 0-59 month sample group.

Conclusions and recommendations, followed by detailed indicator results, are presented for the following areas:

- D2.1 Information and Knowledge on ANC and PP Care
- D2.2 Practices in ANC and PP Care
- D2.3 Practices in Child Health
- D2.4 Practices in Child Nutrition
- D2.5 Benchmarks for PMA performance – ANC and PP Care
- D2.6 Benchmarks for PMA performance - Child Health and Nutrition
- D2.7 Recommendations – ANC and PP Care
- D2.8 Recommendations – Child Health and Nutrition

Main Conclusions and Recommendations: MCH

D2.1: Information and Knowledge on ANC and PP Care

- Women's knowledge about the means to protect their own health and their baby's is very critical. Only fewer than two women in ten (16%) are able to name spontaneously three or more ways by which a woman can protect her health and her baby during pregnancy - although 77% of respondents spontaneously mentioned at least one way in which a pregnant woman can protect her health and her baby. The most cited responses include: doing antenatal care (58%), protection against malaria (33%) and immunization against tetanus (23%).
- However, a large proportion of respondents (eight out of ten people) knew where to find iron / folate tablets and vitamin A in the neighborhood within 5 km (respectively 86% and 89%).

D2.2: Practices in ANC and PP Care

- A large majority of respondents (91%) made at least one prenatal visit during pregnancy. Thus, almost seven in ten people (69%) had prenatal consultations during their first trimester, and less than six in ten (58%) completed the four consultations recommended (It is 49% with EDSMD 2008-2009). However, only three in ten respondents (35%) completed 4 consultations and made a prenatal visit during their first trimester.
- 66% of women took iron / folate during pregnancy. Most of them (88%) say that they have taken it once a day, but only 10% have taken it once per day throughout pregnancy.
- As for the practice of vaccination against tetanus, about half of the women have full protection against tetanus (two injections during their pregnancy (46%), or five injections before and during pregnancy of the reference child (54%)). It is 68% with EDSMD 2008-2009.
- Regarding the prevention of malaria for women during pregnancy, less than one in three women (31%) took two or more doses of sulfadoxine pyriméthane (SP). On the other hand, more than two out of three women (76%) slept under an ITN during pregnancy.

- We noted that a clean delivery kit or sterilized instruments were used for the majority of deliveries (91%), demonstrating good practical knowledge on this issue by skilled and / or traditional midwives. Despite this, only just over half of deliveries (59%) occurred under the supervision of a qualified health worker.
- Only two in five women (42%) have received a PP visit by a skilled provider within 3 days after delivery (It is 44% with EDSMD 2008-2009). Most women who gave birth in a health facility had made a PP visit (39 of 54) but very few of those who had given birth at home (9 of 60) had consulted a skilled provider.
- In addition, only a small proportion of women (37%) received vitamin A during the 8 weeks after delivery as recommended.
- Good practice for essential newborn care was observed in 47% of births. We must note that this indicator is composed of three practices (drying the child within the hour immediately following birth, wrapping the child in a warm blanket immediately after birth and breastfeeding the child within one hour after birth). A breakdown of this indicator has shown that the first two practices (drying and warming) are already very common practices (92% and 98% respectively). Yet, this did not happen for the third practice - a bit more than half (54%) of children have been breastfed within eight hours after birth.

D2.3: Child Health Practices

- The proportion of children aged 12 to 23 months who received their third vaccine against diphtheria, tetanus and pertussis (DTP) at the age of 12 months, about 71%, in these areas of USAID program's future intervention is slightly lower to the national rate which is 73% according to EDSMD 2008-2009.
- Approximately two out of three children of 0-59 months (58%) with ARI symptoms (cough and / or difficulty breathing) were taken to a care provider for treatment (42% with EDSMD 2008-2009). However, only half of these children 0-59 months with diarrhea in the last two weeks were treated with ORS, about 33%.

D2.4: Child nutrition practices

- A large majority of mothers (84%) reported giving colostrum to the newborn. However, a significant proportion (25%) of mothers still gave something other than breast milk in the three days after birth.
- Regarding the practice of exclusive breastfeeding: 60% of mothers reported having given only breast milk to their babies under 6 months in the past 24 hours (51% with EDSMD 2008-2009). Also, it is noted that 76% of children 12-23 months are still breastfed by their mother.
- It was noted that a large proportion of children (89%) in the sub-sample of 12-23 months received at least one food rich in vitamin A in the 24 hours preceding the survey. 68% of mothers with children at the same age group can name at least one source of food rich in vitamin A. On the other hand, the proportion of children aged 12-23 months who received at least one food rich in iron is only 61%, or about one in three children.
- During the 24 hours preceding the survey, the proportion of children (12-23 months) who are fed according to all the dietary practices recommended just reached the half (54%) of children. In one hand, the breakdown of this indicator has shown that most (80%) children were fed at the recommended frequency and only 68% received the recommended number of food groups, on the other hand.
- Despite the mass campaign conducted this year, the activity of vitamin A supplementation has only covered 74% of children 12-23 months within 6 months before the survey.
- The proportion of children aged 0-59 months with a standard deviation of weight for age below -2 (WAZ <2) is still below the national target areas of USAID, or 34% (46% with EDSMD 2008-2009).

D2.5: PMA Benchmarks performance - ANC Care and Postpartum

- In general, PMAs are struggling to meet the knowledge thresholds for all indicators related to prenatal and postpartum care. Particularly, no threshold has been reached for PMA1, PMA2 and PMA4.

- For antenatal care (ANC), no PMAs have reached the threshold for any of the indicators. Moreover, only PMA5 meets the threshold for women who received ANC at least 4 times during their pregnancy with the reference child.
- Regarding important care practices during pregnancy to protect mother and child, all PMAs struggled to meet the thresholds with all indicators, especially PMA1, PMA2 and PMA4. Only one out of six PMAs reached the threshold on both taking iron / folate once a day during pregnancy with the reference child and the mothers of children 0 - 11 months indicating that they slept under an ITN during their pregnancy. Moreover, half of PMAs have reached the threshold for women who received two or more doses of SP for malaria IPT during pregnancy with the child reference;only two out of six PMAs have reached the threshold on women who received at least 2 TT vaccines during pregnancy with the reference child.
- As for care during childbirth, only PMA2 reached the threshold for both indicators (childbirth assisted by a qualified person and the use of clean delivery kit / boiled instrument).
- Regarding newborn essential care, only two out of six PMAs (PMA1 and PMA2) reached the threshold on most indicators. We especially notice that four out of six of PMAs could not meet the threshold on newborn breastfeeding practice within one hour or at limit within 8 hours following birth.

D2.6: PMA Benchmarks performance - Health & Nutrition childhood

- Except for PMA1, the PMAs are struggling to meet the thresholds for indicators on child care practices, including vaccination. We observed that no indicator threshold has been reached in this area in the PMA2 and PMA5.
- In general, all PMAs had difficulties achieving the thresholds, and no threshold is reached (in PMA1, 3, 5 and 6) for indicators related to mothers practicing exclusive breastfeeding behavior. Furthermore, none of PMAs meet the threshold related to giving only breast milk to the reference child during the first three days.
- Apart from PMA3, all other PMAs failed to reach the threshold on almost all the indicators related to feeding young children according to minimum standards. It is also noted that only one out of six PMAs (PMA1) met the threshold for children 12-23 months receiving vitamin A supplement during the 6 months before the survey.
- A low weight-for-age (below -2 SD) reflects underweight. However, the threshold reached for this indicator is only observed in one out of six PMAs, PMA4.

D2.7: Recommendations - ANC and Postpartum Care

- Good, enriched and focused knowledge can definitely help people remember and follow the preferred practices. Therefore, the program should increase outreach activities and improve the message transfer strategy in terms of the approach and technique (adapted to the locality) and the content (clear, focused but not loaded). Some examples are listed below:

  ☛ Messages will help target retaining at least three main ways by which women can protect their health and that of their baby during pregnancy – and may push them to action (1st ANC early and 4 times during pregnancy ; taking two doses of SP and at least two vaccines AT). This recommendation is made to all PMAs. However, special attention is required for PMA 5 and 6 so that they can subsequently be aligned with other PMAs.

☛ Greater emphasis on the importance of post-partum visit within three days after home delivery must be highlighted. Similarly, the need to take vitamin A in 8 weeks after birth by mothers.

☛ Messages on essential newborn care should emphasize the benefits of immediate breastfeeding the baby after birth.

- In parallel, the program should give priority to developing effective strategies and activities to strengthen the performance of the health system so that services are always available and easily accessible to the target beneficiaries. These strategies should aim to improve compliance with the 4 ANC visits during pregnancy, tetanus and malaria prevention as well as iron / folate and vitamin A intake.

D2.8: Recommendations - Health & Nutrition childhood

- Regarding knowledge, it is recommended that the program increase outreach activities and improve message transfer approach and technique as well as the content to push people to action. Some examples are listed below:

  ☛ Messages should encourage mothers to give ORS as the first line of treatment whenever the child has diarrhea.

  ☛ Efforts should be made to further emphasize the benefits of exclusive breastfeeding.

  ☛ In addition, the program should increase awareness and develop more concise messages about the standards of appropriate feeding practices (type, time and number of times recommended) of infants and young children in order to correct this behavior which weighs heavily on the high rate of malnutrition.
- In conjunction, it is a priority for the program to develop strategies for strengthening health services and child nutrition. The objective is to ensure adequate immunization coverage of children before their first birthday through fixed sites, which will be complemented by outreach and vaccination campaigns. Thus, it is suggested that program participate actively in the campaigns promoted by the Ministry of Health.
- Regarding the low rates of good practices related to the management of sick children especially diarrhea, cough and fever, which are recognized as factors of child malnutrition, the program should strengthen the health system for better management and a reorientation of resources in favor of these diseases.

D2.1 Information and Knowledge on ANC and PP Care

Indicators Collected	Total n	Program-wide point estimates #	%	Confidence Interval Lower	Upper	Seuil fixé à (%)	Program Management Area (Y/N) PMA 1	PMA 2	PMA 3	PMA 4	PMA 5	PMA 6
% of women who stated at least 3 ways in which a woman can protect her health and the health of her baby during pregnancy	114	18	16	09	23	25	N	N	N	N	N	N
% of women who stated knowing where to obtain iron folate nearby	114	98	86	79	92	95	N	N	N	N	O	O
% of women who stated knowing where to obtain Vitamin A	114	101	89	83	95	100	N	N	O	N	N	N

D2.2 Practices in ANC and PP Care												
Indicators Collected		**Program-wide point estimates**				**Benchmark Set At (%)**	**Program Management Area (Y/N)**					
	Total n	**#**	**%**	**Confidence Interval Lower**	**Upper**		**PMA 1**	**PMA 2**	**PMA 3**	**PMA 4**	**PMA 5**	**PMA 6**
% of women seen at ANC at least one time during their pregnancy with the reference child	114	104	91	86	97	100	N	N	N	N	Y	Y
% of women seen at ANC during their first trimester of pregnancy	114	79	69	61	78	80	N	N	N	N	Y	N
% of women seen at ANC at least 4 times during their pregnancy with reference child	114	66	58	49	67	70	N	N	N	N	N	Y
% of women seen at ANC at least 4 times during their pregnancy with reference child and who were seen during their first trimester of pregnancy	114	40	35	26	44	45	N	N	N	N	Y	N
% of women who took iron/folate during their pregnancy with reference child	114	77	68	59	76	75	N	N	N	N	N	Y
% of women who took iron/folate once per day during their pregnancy with reference child	77	68	88	81	96	100	Y	N	N	Y	N	N
% of women who took iron/folate once per day throughout pregnancy with reference child	77	8	10	03	17	20	N	Y	N	N	N	N
% of women who received at least 2 TT injections during their pregnancy with reference child	114	53	46	37	56	55	N	N	Y	N	N	Y
% of women who received at least 2 TT injections during their pregnancy, or 5 injections in total before and during pregnancy with reference child	114	61	54	44	63	65	N	N	N	N	N	Y
% of women who received two or more doses of SP for IPT for malaria during their pregnancy with reference child	114	35	31	22	39	40	N	N	Y	N	Y	Y
% of women who stated sleeping under an ITN during their pregnancy with reference child	114	87	76	68	84	85	N	N	N	N	Y	N
% of births attended by a doctor, nurse or trained midwife (excludes traditional birth attendants)	114	67	59	50	68	70	N	Y	N	N	N	Y
% of women who stated that a Clean Delivery Kit or new or boiled instrument was used during delivery of reference child	114	104	91	86	97	100	N	Y	N	N	Y	N
% of women who gave birth who had a PP visit within 3 days	114	48	42	32	51	50	N	Y	N	N	N	Y
% of women who gave birth who received a dose of Vitamin A less than 8 weeks after delivery of the reference child	114	42	37	28	46	45	N	N	N	N	N	Y
% of newborns receiving essential newborn care	114	54	47	38	57	55	Y	Y	N	N	N	N
% of children 0-11 months dried/wiped immediately after birth	114	105	92	87	97	100	N	N	N	Y	N	N
% of children 0-11 months wrapped in a warm cloth or blanket immediately after birth	114	112	98	96	1,01	100	Y	Y	N	N	Y	Y
% of children 0-11 months breastfed within one hour of delivery	114	64	56	47	65	65	Y	Y	N	N	N	N
% of children 0-11 months breastfed within eight hours of delivery	114	61	54	44	63	65	Y	Y	N	N	N	N

D2.3 Practices in Child Health

Indicators Collected	Total n	Program-wide point estimates				Benchmark Set At (%)	Program Management Area (Y/N)					
		#	%	Confidence Interval Lower	Upper		PMA 1	PMA 2	PMA 3	PMA 4	PMA 5	PMA 6
% of children between 12-23 months who received their third dose of DTP by 12 months	114	81	71	63	80	80	Y	N	Y	N	N	N
% of children 0-59 months with diarrhea in the past two weeks who were treated with ORS	114	38	33	25	42	45	Y	N	N	Y	N	N
% of children 0-59 months with chest-related cough and/or difficult breathing in the last two weeks who were taken to an appropriate health provider	114	66	58	49	67	70	Y	N	N	N	N	Y

D2.4 Practices in Child Nutrition

Indicators Collected	Total n	Program-wide point estimates				Benchmark Set At (%)	Program Management Area (Y/N)					
		#	%	Confidence Interval Lower	Upper		PMA 1	PMA 2	PMA 3	PMA 4	PMA 5	PMA 6
% of women who gave colostrum to reference child	114	96	84	77	91	95	N	N	N	Y	N	N
% of women who gave something other than breast milk to reference child in first 3 days	114	29	25	17	34	<15	N	N	N	N	N	N
% of infants 0-6 months who were exclusively breastfed in the last 24 hours	114	68	60	51	69	70	N	Y	N	N	N	N
% of women who can state at least one source of food rich in Vitamin A	114	78	68	60	77	80	N	Y	N	N	N	N
% Gave at least 1 Vitamin A rich food to child in last 24 h	114	101	89	83	95	100	N	N	N	N	Y	N
% Gave at least 1 iron rich food to child in last 24 h	114	70	61	52	70	70	N	N	Y	N	N	N
% Are currently breastfeeding the child 12-23 m	114	87	76	68	84	85	N	N	Y	N	N	N
% Breastfed or non-breastfed child ate at least the recommended minimum times in last 24 h	114	91	80	72	87	90	N	Y	Y	N	N	N
% Breastfed or non-breastfed child ate from at least the recommended minimum number of food groups in last 24 h	114	78	68	60	77	80	N	N	Y	N	N	N
% of children 12-23 months fed according to a minimum standard of infant and young child feeding practices	114	62	54	45	64	65	N	N	Y	N	N	N
% of children 12-23 months receiving a vitamin A supplement during the last six months before the survey.	114	84	74	65	82	85	Y	N	N	N	N	N
% of children 0-59 months who are more than -2 SD below the median weight for that age	114	39	34	25	43	<25	N	N	N	N	Y	N

D3. FAMILY PLANNING (FP)

The population-based component of the OM Survey collected information on family planning (FP) from all women in the 15-49 year sample group who are married/ in union.

Conclusions and recommendations, followed by detailed indicator results, are presented for the following areas:

- D3.1 Information and Knowledge on FP
- D3.2 Practices in FP
- D3.3 Benchmarks for PMA performance
- D3.4 Recommendation

Main Conclusions and Recommendations: FP

D3.1: Information and Knowledge on FP

- A high proportion of women aged 15-49 years, married / in union, knew at least one modern method of family planning (93%). However, less than half are able to name at least three modern methods of planning (41%). The most cited are injectables (87.7%) and pills (85.9%).
- 66% of respondents recognize PilPlan, the contraceptive pill supported by USAID: Half of respondents indicate that they can usually find PilPlan in the neighborhood within 5 km. An absolute majority (83%) of respondents felt that the price is affordable.

D3.2: Practices in FP

- The percentage of women aged 15-49 years, married / in union using a modern method of contraception (TPC) is 41% in areas supported by USAID, it is far higher than the national level (29% according to EDSMD 2008-2009).
- Almost all (93%) of mothers of children 0-11.9 months have expressed the desire to space births at 24 months or more apart, or to have no more children (76% with EDSMD 2008-2009).

D3.3: Benchmarks for PMA Performance

- It is observed that more than half of PMAs (4/6 PMAs) have reached the threshold on knowing at least one modern method of family planning (FP), but only one out of six PMAs has met the threshold on knowing at least three modern methods of FP.
- Particularly for PilPlan, the contraceptive pill supported by USAID, the respondents' level of knowledge on this product reached the threshold in only two out of six PMAs, namely, PMA3 and PMA6.
- Regarding PilPlan product availability, the threshold is reached in only one out of six PMAs. (PMA3).
- The threshold on current use of a modern method of contraception by women aged 15-49 married or in union, is reached by a single PMA, PMA3. However, the threshold on wanting to wait 24 months or more to have another child or not to have children is met by four out of six PMAs.

D 3.4: Recommendations

- We conclude confidently that the Family Planning (FP) program is working well in these zones of the survey. However, we noted that the program could have had better results if it improved women's knowledge on the products available, both the range of products and specific brands. This strategy aims to respect the client choice as it is one of the client's rights.
- As a gap between knowledge and use is still observed, it is of great importance to increase awareness, to bring those women that have experienced at least a modern FP method and those wishing to apply birth spacing for at least 24 months, to practice or adopt a modern FP method. For the effectiveness of this strategy, it is in the interest of the program to pay special attention to all AGPs (excepted AGP3) which did not meet the benchmark on practicing FP even though the desire for birth spacing or not having children is high.

D3.1 Information and Knowledge on FP

Indicators Collected	Total n	Program-wide point estimates				Benchmark Set At (%)	Program Management Area (Y/N)					
		#	%	Confidence Interval Lower	Confidence Interval Upper		PMA 1	PMA 2	PMA 3	PMA 4	PMA 5	PMA 6
% of women who state knowing at least one family planning method	114	106	93	88	98	95	Y	Y	Y	Y	N	N
% of women who stated at least 3 modern family planning methods	114	58	51	42	60	51	Y	N	N	N	N	N
% of women who state knowing about the locally promoted contraceptive pill (PilPlan)	114	75	66	57	75	75	N	N	Y	N	N	Y
% of women who state knowing where to obtain the locally promoted contraceptive pills (PilPlan) nearby	114	58	51	42	60	60	N	N	Y	N	N	N
% of women who state that the price of locally promoted contraceptive pills (PilPlan) is affordable	114	62	83	74	91	95	Y	N	N	Y	N	N

D3.2 Practices in FP

Indicators Collected	Total n	Program-wide point estimates				Benchmark Set At (%)	Program Management Area (Y/N)					
		#	%	Confidence Interval Lower	Confidence Interval Upper		PMA 1	PMA 2	PMA 3	PMA 4	PMA 5	PMA 6
% of women aged 15-49 years married/in union use a method modern of contraception currently	114	47	41	32	50	50	N	N	Y	N	N	N
% of women of reproductive age stating their desire to space birth intervals 36 months or longer, or to limit births	114	106	93	88	98	100	N	Y	N	Y	N	Y

D4. HIV AND STI

The population-based component of the OM Survey collected information on HIV and STIs from all women in the 15-49 year sample group.

Conclusions and recommendations, followed by detailed indicator results, are presented for the following areas:

- D4.1 Knowledge and information on HIV and STIs
- D4.2 Practices in prevention of HIV and STIs
- D4.3 Benchmarks for PMA performance
- D4.4 Recommendations

Main Conclusions and Recommendations: HIV and STIs

D4.1: Knowledge and information on HIV and STIs

- A high proportion of respondents (96%) reported being aware of HIV. However, only a third of those interviewed (32%) were able to correctly describe HIV. Regarding the transmission of HIV, 85% of respondents know how HIV is transmitted AND without wrong or erroneous answer. As for prevention, only 4% of respondents are able to cite at least three ways to prevent HIV infection, with 46% indicating that they know two ways to avoid HIV infection.
- Protector Plus, the brand of condoms supported by USAID, is well known by 95% of respondents.

D4.2: Practices in prevention of HIV and STIs

- Only 4% of women indicated having had a non-regular sexual partner during the past 12 months. None of these women had used a condom at last sexual intercourse with non-regular partners.
- The proportion of women reporting having had a problem with STIs in the last 12 months is 9%.

D4.3: Benchmarks for PMA performance

- Only two out of six PMAs, PMA1 and PMA3, reached the threshold related to women's knowledge on the correct description of HIV Only one out of six PMAs (PMA6) was able to meet the threshold for the indicators related to women's knowledge about HIV transmission. The same situation was observed on the indicator related to women knowledge on ways to prevent HIV; only one out of six PMAs (PMA1) reached that threshold. Protector Plus, the condoms supported by USAID, is known in half of PMAs (three out of six of PMAs).
- Abstention from sexual intercourse with non-regular partners doesn't reach the threshold in half of the PMAs (PMA3, PMA4 and PMA5). Moreover, none of PMAs has met the threshold for the use of a condom during sex with non-regular partners in the last 12 months. Finally, only two out of six PMAs have reached the threshold for the indicator "% of women reporting having had a an STIs in the last 12 months."

D4.4: Recommandations

- The program should increase awareness about various ways to avoid HIV infection, while highlighting their links with several forms of disease transmission. Specifically, partners in the field should further strengthen the use of a condom during sexual intercourse with non-regular partners taking into account the high proportion of respondents who already know Protector Plus.
- The program and its partners should monitor their strategy for disseminating information, and verify that messages are actually delivered properly to the community by the agents.

D4.1 Knowledge and Information on HIV and STIs

Indicators Collected	Total n	Program-wide point estimates		Confidence Interval		Benchmark Set At (%)	Program Management Area (Y/N)					
		#	%	Lower	Upper		PMA 1	PMA 2	PMA 3	PMA 4	PMA 5	PMA 6
% of women who stated knowing about HIV	114	110	96	92	99	100	Y	N	N	N	Y	Y
% of women who describe HIV correctly	114	36	32	23	40	40	Y	N	Y	N	N	N
% of women who stated at least 1 way HIV is transmitted	110	97	88	82	94	100	N	N	N	N	Y	Y
%of women who know how HIV is transmitted **(no erroneous answer)**	114	97	85	78	92	95	N	N	N	N	N	Y
% of women who know how to avoid being infected by HIV (at least 2 ways)	114	52	46	36	55	55	Y	N	N	N	N	N
% of women who stated knowing of other STIs	N/A	N/A	N/A	N/A	N/A	N/A						
% of women who stated knowing Protector Plus	114	108	95	91	99	100	N	Y	N	N	Y	Y

D4.2 Practices in prevention of HIV and STIs

Indicators Collected	Total n	Program-wide point estimates		Confidence Interval		Benchmark Set At (%)	Program Management Area (Y/N)					
		#	%	Lower	Upper		PMA 1	PMA 2	PMA 3	PMA 4	PMA 5	PMA 6
% of women who stated having had sex with non-regular sexual partner in last 12 months	114	5	04	01	08	00	Y	Y	N	N	N	Y
% of women who stated having had sex with non-regular sexual partner in last 12 months and had used a preservative [8]	5	0	00	00	00	10	N	N	N	N	N	N
% of women who stated having had STI problem in the last 12 months	114	10	09	03	14	00	Y	N	N	N	Y	N

[8] There is not a reliable statistic for this indicator due to the very small number of women who indicated that they had sexual intercourse with a non regular partner these last 12 months.

E. FACILITY-BASED COMPONENT

The facility-based component of the OM Survey includes data collected from 19 health centers selected randomly from the communes where USAID and its partners have activities. Because of the small sample size, no comparisons were made among PMAs. Instead, an assessment was made of the performance of the health centers overall without the use of PMAs. For this baseline, the analysis refers only if the group of CSBs as a whole has "passed" the benchmark set at 50%. Thus, if the CSBs have reached this threshold, overall performance is considered to have been satisfactory. Data are collected on the following aspects:

- E1. General Conditions at the Facility
- E2. Maternal and Child Health
- E3. Family Planning
- E4. HIV and STIs

Main Conclusions

The facility-based component of the OM survey documented issues related to the quality of services offered at the health center (CSB, or *Centre de Santé de Base*) level. This was examined in relation to the welcome at the site; the quality of the infrastructure; material and human resources available; and cleanliness and prevention of infections. In addition, questions on the knowledge of the staff were administered in some key areas, while in others; elements of the Tiahrt Amendment were incorporated to ensure compliance with USG regulations.

The results show that the CSBs meet the essential aspects related to hosting customers. The waiting rooms provide minimum conditions, IEC sessions are offered to customers while they are waiting to be received, and the essential measures are taken to maintain the cleanliness of premises. However, little effort is made to reduce the waiting time for customers, to obtain their views on service quality in order to use these suggestions to improve the service. In addition, several aspects concerning the prevention of infections are weak, often due to lack of equipment and supplies for disinfection and displayed instructions.

One other deficiency which is observed relates to the use of information gathered to improve program quality. Local staff should use monthly collected data and display them graphically to support their decisions, take appropriate action and monitor progress, but little is done in that way. Moreover, too many CSBs are not applying the standards and protocols of the Ministry of Health in areas such as IMCI or EIC. Finally, the CSBs did not perform satisfactorily as regards to the availability of qualified personnel for antenatal clinics as well as to the pregnant woman education on a healthy pregnancy.

Health centers seem to comply with the standards of the Tiahrt amendment. However, the posters on methods ranges and clients' rights in FP are often lacking. This question seems to be much more related to logistic weakness in supplying visual aids to the health centers.

In general, the recommendations emerging from these results suggest a need to improve the organization as well as all activities in health centers. These recommendations cover several levels of management including management of products, training of staff and local program administration.

E1. GENERAL CONDITIONS

This section covers the information collected by the facility-based component of the OM Survey to examine the extent to which the health centers have the infrastructure, resources and supportive management required to ensure the provision and quality of key services.
Aspects examined include:

- E1.1 Welcoming Services and Promotion of Client Satisfaction
- E1.2 Quality of the Infrastructure
- E1.3 Equipment, Drugs and Supplies Management
- E1.4 Cleanliness and Prevention of Infections

Main Conclusions and Recommendations: General Conditions

In general, the CSBs show good performance on the following aspects: i) reception of clients and providing IEC sessions while they're waiting; ii) the presence and cleanliness of spaces available, except toilets (examination rooms, storage areas for medicines and medical supplies, etc. ...); iii) medicines and essential equipment are generally present (including Depo Provera and DTC 3, two key indicators for USAID / Madagascar).

However, some areas (other than the management of drugs), need to be improved to help health centers achieve a satisfactory performance on the general standards. Some examples are listed below:

- Welcoming services and client satisfaction: the program should make an effort to make the posters about the battle against malaria available and recommend that they are clearly displayed for customers. Furthermore, all officials of CBS had made efforts to minimize the waiting time for customers. However, the program and its partners should make sure that the staff apply effectively the measures agreed to reduce the waiting time (e.g. integrate it into the CSB supervision form, develop more practical tools for CSBs) and encourage staff to regularly conduct a poll among customers on the quality of services delivered (e.g.: develop guidelines, methods and tools more convenient for CSBs) and use this information for continuous improvement of services.
- Quality of infrastructure: access to toilets by clients remains a problem. In addition, the program should emphasize the importance of having clean water available and soap for washing hands and a waste receptacle. Similarly, the program should encourage that each CSB have enough seats in the waiting room and child health cards.
- Infection control: the program should review the strategy for the prevention of infections in the CSB, particularly the training of health care providers in good practices to ensure effective procedures for infection control. Thus, increasing CSB worker skills and abilities and CSB capacity in the principles of decontamination, sterilization and waste management is required which can be facilitated by: (i) displaying detailed information at the right place; (ii) complete equipment needed for other components including cleaning (especially protective equipment), sterilization of medical instruments (sterilizer adapted to the context and box for storage of sterilized equipment and instruments) and availability of a airtight container for temporary storage of medical waste and sharp objects, (iii) basic training and / or refresher training.

E1.1 Welcoming Services and Promotion of Client Satisfaction			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Offers IEC sessions while visitors are waiting	19	16	Y
Visibly displays information on			
1- Reproductive health	19	15	Y
2- Malaria	19	7	N
3- IMCI	19	14	Y
Actively seeks to reduce waiting time			
1- Has a method to control and reduce waiting time	19	2	N
2- Applies this method at least twice a year	19	0	N
3- Uses the results to reduce patient waiting time	19	0	N
4- Maintains waiting time under 30m in normal time and 60m on crowded days	19	15	Y
Seeks client opinions to improve services			
1- Elicit patients' opinions at least once in the last three months	19	3	N
2- Use these results to improve its services	19	0	N

E1.2 Quality of the Infrastructure			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
The waiting area			
1- Is adequately ventilated (or is outside)	19	16	Y
2- Is adequately lit (or is outside)	19	16	Y
3- Is protected from the sun and the rain	19	16	Y
4- Provides enough seating places	19	12	Y
The toilet has			
1- A door that closes	19	17	Y
2- A water point	19	9	N
3- A garbage disposal bin	19	1	N
4- Is easy for clients to access	19	6	N
The examination room			
1- Ensures privacy	19	18	Y
2- Has an examination table	19	16	Y
3- Has a light source	19	12	Y
4- All of the above	19	11	Y
The health center has clean water available	19	10	N

E1.3 Equipment, Drugs and Supplies Management			
	Health Centers		Benchmark Met (Y/N)
The following essential drugs and medications are present	Total	Passed	
1- Depo-provera	19	17	Y
2- Condoms	19	15	Y
3- Ciprofloxacin	19	9	N
4- Amoxicillin	19	15	Y
5- Doxycycline	19	8	N
6- Erythromycin	19	10	N
7- Metronidazole	19	17	Y
8- Cotrimoxazole	19	17	Y
9- Benzathine penicillin	19	13	Y
10- Nystatin	19	7	N
11- cura7	19	11	Y
12- Paracetamol	19	19	Y
13- SP tablets	19	17	Y
14- Mebendazole 500mg/A bendazole 400mg	19	17	Y
15- FAF (tablets)	19	7	N
16- physiological solution or Hartmann's solution	19	7	N
17- Folic acid (tablets)	19	5	N
18- Benzathine Penicillin (injection)	19	14	Y
19- Isotonic glucose solution 5%	19	16	Y
20- Epicranial infusion pump	19	19	Y
21- Distilled water (injection)	19	18	Y
22- Tetanus vaccine	19	16	Y
23- Quinine (tablets, 300mg)	19	11	N
24- Quinine (injection, 600mg)	19	15	Y
25- Rapid diagnostic test for malaria	19	17	Y
26- Insecticide-treated bednet	19	7	N
27- Cotrimoxazole	19	10	N
28- Chloroquine	19	3	N
29- ORS packets	19	19	Y
30- Mebendazole (tablets 100mg)	19	13	Y
31- Vitamin A (gelules)	19	14	Y
32- Gentamicin (injection 20mg)	19	5	N
33- Metronidazole	19	17	Y
34- Ophthalmic ointment	19	14	Y
35- Gentian violet	19	16	Y
36- None of these medicines	19	0	N
The following essential equipment is present and in working condition			
1- An adult scale	19	19	Y
2- A container to decontaminate instruments	19	11	Y
3- A garbage can	19	18	Y
4- A box to dispose of sharp objects	19	17	Y
5- The necessary IEC materials	19	12	Y
6- A thermometer	19	18	Y

7- A stethoscope	19	17	Y
8- A serum support hanger	19	16	Y
9- A sterilizer	19	5	N
10- A drinking cup	19	15	Y
11- A basin for hand washing	19	15	Y
12- An infant scale	19	13	Y
13- A child scale	19	13	Y
14- A spoon	19	10	N
15- A clock or watch	19	12	Y
16- Bleach water or powder	19	5	N
17- A TRO corner with utensils	19	19	Y
18- Cotton balls/compresses	19	17	Y
19- Examination gloves	19	11	Y
20- Cleaning gloves	19	19	Y
21- Syringes for injectables	19	17	Y
22- Soap	19	10	N
23- Potable water	19	10	N
24- A kit for perfusion	19	4	N
25- A naso-gastric probe	19	19	Y
26- IST inscription forms	19	4	N
27- Maternal health surveillance cards	19	14	Y
28- Newborn surveillance cards	19	11	Y
29- Maternal health card	19	9	Y
30- Child health card	19	10	N
The drug depot is:			
- Clean	19	16	Y
- Dry	19	17	Y
- Ventilated	19	16	Y
- Protected against theft	19	16	Y
- Protected from the sun	19	17	Y
- Drugs are stored away from heat sources	19	17	Y
- Drugs are stored on shelves	19	16	Y
The health center follows proper management practices for drug and medical supplies:			
1- Uses the FIFO system	19	14	Y
2- Does not keep items past their expiration date	19	16	Y
3- Notes movements daily in stock registry	19	17	Y
4- Documents unfulfilled demands (order slip, delivery slip, etc)	19	3	N

E1.4 Cleanliness and Prevention of Infections			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
The following spaces are clean (not soiled/dusty/dirty)			
1- Waiting room	19	12	Y
2- Consultation room	19	15	Y
3- Examination table	19	12	Y
4- Counters	19	8	N
5- Shelves	19	11	Y
6- Chairs	19	16	Y
7- Sink/bowl	19	11	Y
8- Toilets	19	8	N
Medical waste and cutting objects are temporarily stored:			
1- In a location not accessible to clients	19	6	N
2- In a container that is weather proof and closes well	19	9	N
3- Cleanly so there is no waste outside the container	19	12	Y
4- Solid medical waste is incinerated or buried	19	12	Y
The health center displays instructions on practices to prevent infections			
1- On handwashing	19	7	N
2- On decontamination	19	6	N
3- On cleaning	19	5	N
4- On sterilization	19	3	N
Instruments and other medical equipment are properly decontaminated			
1- Dipped in a chlorine concentration at 0.5	19	7	N
2- A new chlorine solution is prepared daily	19	3	N
3- Instruments are dipped a maximum of 10 minutes	19	11	Y
When cleaning and disposing of waste, the staff uses protective equipment			
1- Cleaning gloves	19	11	Y
2- Head cover	19	1	N
3- A mask	19	2	N
4- A bib or apron	19	9	N
5- Closed shoes	19	5	N
The health center sterilizes instruments adequately			
- Takes the clean instruments apart before sterilizing them	19	7	N
- Submerges instruments completely in water	19	12	Y
- Covers the container	19	12	Y
- Boils instruments for 20 minutes	19	12	Y
- Stores boiled instruments in a container with high level sterilization	19	1	N

E2. MATERNAL AND CHILD HEALTH

This section covers the information collected as part of the facility-based component of the OM Survey to examine the extent to which the health centers have the infrastructure, resources and supportive management required to ensure the provision of quality maternal and child health services and to effectively use local information in improving those services.

Expected services in maternal health include (i) antenatal care; (ii) IPT (intermittent preventive treatment for malaria[9]); (iii) obstetric emergencies; and (iv) orientation and response. Furthermore, health center staffs are expected to provide education to pregnant women on safe pregnancy and delivery.

Services to be provided in the integrated management of childhood illness (IMCI) include the provision of education sessions to mothers on the management of childhood illnesses, the delivery of care on site for cases of child illnesses, and the provision of essential services such as immunization. In all those aspects, the health centers are expected to follow the Ministry of Health's norms and procedures.

Sections include:

- E2.1 Services Provided
- E2.2 Norms and Procedures in the Collection and Use of Information
- E2.3 Norms and Procedures in the Provision of IMCI Services
- E2.4 Staff Resources

Main Conclusions and Recommendations – MCH

ANC and PP Care

Results on the ANC and PP care showed a satisfactory level of performance. However, the program should focus on certain areas in order for CSBs to comply with all norms and standards of the Ministry department for the provision of such services. Thus, to obtain a satisfactory performance at all levels, the program and its partners will have to:

- Insist that a plan of IEC on safe motherhood is displayed in the CSB. This IEC plan should intensively strengthen the CSBs information on the education of pregnant women preparing for childbirth, the danger signs during pregnancy and risk prevention and treatment of malaria, and the value of screening volunteers, breastfeeding and family planning.
- Ensure that there is at least one qualified person per CSB to provide IEC.
- Emphasize the use of information gathered during the provision of services to understand the trends, take the necessary measures for documenting and monitoring of impact of measures taken. It is thus important that the program with its partners promote the approach and tools that can assist providers in following best practices while taking account of their work context (number of staff, workload and training acquired).

[9] In Madagascar, the TPI (Treatment Preventive Intermittent, ITP in English), consists in taking two doses each month of Sulfadoxine Pyrimethamine (SP) from the beginning of pregnancy to the 26th week. SP is a malaria prophylaxis locally known as Fansidar.

Child Health – IMCI

For these intervention areas, we can say that the program has an acceptable baseline position regarding the provision of services related to IMCI in CSBs: (i) health centers offer regular educational sessions on the management of childhood illnesses to mothers (68%), and (ii) a functional cold chain exists for immunization services (89%). Despite these findings, recommendations are still needed to ensure satisfactory performance at all levels. Thus, the program should:

- Ensure that policies, standards and protocols of the Ministry related to IMCI are used and monitored properly.
- Ensure that an adequate FPC file management system is used and monitored properly
- Train staff in collecting and using information to improve the quality of services.
- Check that instructions on the standards related to vaccines storage are displayed, and refrigerators actually receive yearly maintenance, as recommended by the maintenance procedures.
- Ensure that there is at least one qualified person per CBS offering IMCI.

E2.1 Services Provided

	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
ANC and PP Care			
Uses an adequate FPC file management system:			
1- file folders numerically in scheduler	19	10	Y
2- single form for maternal and perinatal clinical condition	19	10	Y
3- noted relevant care information legibly	19	7	N
4- correctly filled clinical graph	19	5	N
Collect antenatal and post partum care information following national norms, including:			
1- individual record correctly filled	19	12	Y
2- information correctly entered in registry	19	18	Y
3- information correctly entered in monthly report	19	18	Y
Analyze the antenatal and post partum care information collected for local decision making, including:			
1- display graphically two or more antenatal care results	19	7	N
2- take decisions based on those results	19	5	N
3- note those decisions	19	1	N
Provides education to pregnant women on health pregnancy:			
1- delivery preparation plan and preparation for complications	19	5	N
2- identification of danger signs and recommended actions	19	6	N
3- knowledge of risks prevention and treatment of malaria	19	2	N
4- voluntary counseling and testing (VCT) in HIV prevention of mother-to-child transmission (PMTCT)	19	1	N
5- STI	19	5	N
6- breastfeeding	19	5	N
7- family planning	19	8	N
8- SFP and vaccination schedules	19	12	Y

9- importance of examinations during pregnancy	19	4	N
10- Any of the above	19	3	N
Child Health - IMCI			
Offered education sessions to mothers during the last week on one topic related to the management of childhood illness (topics might include home treatment of infections, identification of danger signs and action needed, knowledge of risks, prevention and treatment of malaria; prevention and treatment of diarrhea, vaccination, nutrition)	19	13	Y
A complete and functional cold chain is present. The refrigerator:			
1- Is exclusively dedicated to vaccines	19	16	Y
2- Is in working condition	19	17	Y
3- Has energy source present	19	14	Y
4- Has a thermometer	19	16	Y
5- Has a temperature record card visibly displayed	19	14	Y
6- Has a temperature record card that is up to date	19	10	Y
7- Has a temperature record showing that temperatures stayed within normal brackets	19	11	Y
8- Is accompanied by an Immunization calendar that is visibly displayed	19	9	Y
9- Is accompanied by visibly displayed norms on vaccine storage	19	3	N
10- Has no stockout of DTP3 vaccine	19	15	Y
11- Received maintenance in the last 12 months	19	11	Y
12- All of the above	19	0	N

E2.2 Norms and Procedures in the Collection and Use of Information			
	Health Centers		**Benchmark Met (Y/N)**
	Total	**Passed**	
ANC and PP Care			
Have adequate space for filing antenatal and post partum care patients folders, including:			
1- enough cabinets or shelves	19	16	Y
2- can allow movement	19	18	Y
3- has place to sit	19	19	Y
Reports FPC using national norms:			
- Providing a consolidated monthly vaccination report	19	19	Y
Child Health - IMCI			
Collect IMCI information following national norms in monthly report form	19	13	Y
Analyze the IMCI information collected for local decision making, including:			
1- display graphically two or more antenatal care results	19	9	N
2- take decisions based on those results	19	2	N
3- note those decisions	19	0	N

E2.3 Norms and Procedures in Provision of IMCI Services			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Uses the national policies, norms and protocols for IMCI	19	10	N
Have an updated version of the IMCI standards, norms and protocols available	19	5	N

E2.4 Staff Resources			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
ANC and PP Care			
Have qualified human resources for the provision of antenatal and post partum care services, including:			
1- physician	19	6	N
2- nurse	19	7	N
3- matron with state diploma	19	7	N
4- any of the above	19	3	N
Child Health - IMCI			
Have qualified human resources for the provision of IMCI services	19	10	N

E3. FAMILY PLANNING (FP)

This section covers the information collected as part of the facility-based component of the OM Survey to examine the extent to which the USAID-supported health centers have the infrastructure, resources and supportive management required to ensure the quality delivery of key FP services that promote the appropriate, efficient and continuous use of contraceptive methods.

Sections include:
- E3.1 Display of Information
- E3.2 Services Provided
- E3.3 Norms and Procedures in the Collection and Use of Information
- E3.4 Staff Resources
- E3.5 Supplies and Equipment
- E3.6 Tiahrt Amendment

Main Conclusions and Recommendations: Family Planning

We observed that the CSBs have demonstrated an exceptional performance on the following aspects: (i) the majority of key activities for the provision of FP services are offered, (ii) collecting and recording information relating to the provision of FP services according to national standards, (iii) presence of products and essential supplies for FP and (iv) correct knowledge of the procedures to follow during the first FP consultation. However, the program should focus efforts on certain areas so that CBSs can effectively meet the norms and standards of the Ministry.

These areas include:
• Information display: This aspect has demonstrated poor performance
• Using information gathered: despite good information collection and management systems, use of information to improve services is not a common practice for CSBs especially documentation or notation of decisions made (0%).
• Integration of service delivery: providers have not integrated HIV prevention into FP consultations.

Thus, in order for the CSBs to reach a better level of performance on all prescribed standards (indicators or standards), the program should pay attention to the following aspects:

• Display information on FP methods provided and the services timetable
• Display the rights of patients in FP (this is linked to the Tiahrt Amendment)
• Use information gathered to take the necessary measures and note the actions
• Retrain staff to integrate the HIV in the first consultation with a PF client

E3.1 Display of Information

	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Display IEC information on family planning methods offered	19	4	N
Display information on patients rights in the provision of FP services	19	4	N
Display IEC information on schedule of FP services	19	7	N

E3.2 Services Provided			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Offer a complete minimum activity packet for the provision of FP services	19	8	N
1- information and counseling on family planning methods	19	17	Y
2- prescription of family planning methods	19	19	Y
3- regular follow up of FP services	19	19	Y
4- provides referral to health facility	19	10	N

E3.3 Norms and Procedures in the Collection and Use of Information			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Have an adequate FP file management system, where patient data is noted legibly and correctly	19	18	Y
Collect information on the provision of FP services using national norms, including:			
1- individual record correctly filled	19	17	Y
2- monthly report form correctly filled	19	19	Y
Analyze the FP information collected for local decision-making, including:			
1- display graphically two or more FP results	19	6	N
2- take decisions based on those results	19	4	N
3- note those decisions	19	0	N

E3.4 Staff Resources			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Have qualified human resources for the provision of FP services	19	12	Y
Staff correctly lists steps to do at the first FP consultation, including:			
1- identify clients needs	19	19	Y
2- explain choice of methods	19	19	Y
4- verify client is not pregnant	19	13	Y
5- discuss method favored by client	19	17	Y
6- provide counseling on protection from HIV	19	3	N
Staff states not having been offered rewards for promoting a particular FP method or product	19	19	Y
Staff states not having been offered rewards for promoting FP in general	19	19	Y

E3.5 Supplies and Equipment			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Have all the required equipment for FP education:			
1- anatomic models for male condoms	19	1	N
2- display showing FP methods	19	2	N
Have an updated copy of FP guidance, standards and protocols	19	3	N
Have the necessary FP stocks, including:			
1- Depo Provera	19	17	Y
2- condoms	19	15	Y
3- needles and syringes for injection	19	17	Y

E3.6 Tiahrt Amendment

The Tiahrt amendment, passed by the U.S. Congress in 1998, prohibits funding any organization or program that supports or participates in coercive abortion or involuntary sterilization. Further, no quotas or incentives for FP can be incorporated into projects receiving U.S. funding. The amendment also requires that client options be respected when introducing and providing FP services. Questions were introduced in this survey to ensure the basic provisions of the Tiahrt amendment are observed in USAID-funded FP programs.[10]

To ensure that FP customers are free to choose their preferred method, the survey sought to determine if the CSB legibly displays information about all available methods and patients' rights in relation to the FP, if they have various methods, and it has a sample of FP methods in which customers can choose. The results showed that services and key products were actually available in a satisfactory number of health centers. On the other hand, many health centers did not display information on the rights of customers.

To verify that no incentives or quotas are used, the CSB staff was asked to detect that they were not encouraged to promote FP or any particular method. The investigation found no facts suggesting that a system of quotas or incentives to encourage the PF in general or FP method in particular is in place.

Health centers observe therefore the provisions of the Tiahrt Amendment in most aspects. One element should be strengthened to ensure full compliance of the terms of the amendment: i) show clearly the rights of patients on the use of FP services so that customers can fully exercise freedom of choice when they want to adopt a FP method preferred.

[10] No specific questions were included about coercive abortion or involuntary sterilization, as health centers are part of the Ministry of Health, which does not support such actions.

E4. HIV AND STI

This section covers the information collected by the facility-based component of the OM Survey to examine the extent to which the health centers have the infrastructure, resources and supportive management required to ensure the provision and quality of key STI and HIV services. Services to be provided include education sessions to reduce the risk of STI and HIV, specific actions for vulnerable groups, and the treatment of STI patients using the syndromic approach. In all these aspects, health centers are expected to follow the Ministry of Health's norms and procedures and to effectively use local information in improving those services. Performance in those various aspects is reviewed below.

Sections include:

- E4.1 Services Provided
- E4.2 Norms and Procedures in the Collection and Use of Information
- E4.3 Norms and Procedures in the Provision of HIV/STI Services
- E4.4 Staff Resources

Main Conclusions and Recommendations: HIV and STIs

The health centers have adequate levels of adherence to standards and norms of the Ministry for the provision of services related to STIs and HIV, including (i) the use of standards, norms and procedures for collecting the information and (ii) the staff knowledge on the key stages of consultation for STIs which are supported by the availability of protocols and IEC materials for the treatment of STIs and the existence of a good system of file management on customers.

However, in order to maintain this level of performance achieved, it is advisable that programs:
• Ensure that staff receive training in HIV/AIDS counseling.

E4.1 Services Provided

	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Offer a complete minimum activity packet for STI and HIV prevention and control			
1- IEC messages to reduce risk of STI and HIV	19	12	Y
2- specific actions for vulnerable groups	19	19	Y

E4.2 Norms and Procedures in the Collection and Use of Information

	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Have an adequate STI file management system where patient data is noted completely and leg bly	19	19	Y

E4.3 Norms and Procedures in the Provision of HIV/STI Services			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Have protocols and IEC support for treatment of STI	19	18	Y

E4.4 Staff Resources			
	Health Centers		Benchmark Met (Y/N)
	Total	Passed	
Have qualified human resources for the provision of STI and HIV services, including:			
1- staff trained in HIV/AIDS counseling	19	2	N
2- staff trained in syndromic approach for the treatment of STI	19	11	Y
Staff lists correctly at least 5 of the 6 steps to do at the STI consultation, including:			
1- proceed with interview	19	19	Y
2- establish risk profile	19	12	Y
3- do examination	19	13	Y
4- choose appropriate protocol	19	14	Y
5- decide treatment	19	18	Y
6- inform that sexual partner be notified	19	13	Y

ANNEX ON CD-ROM

The following Annexes are listed on the CD-ROM that accompanies this document

Annex 1: List of sites visited
Annex 2: List of indicators collected
Annex 3: Questionnaire survey of population
Annex 4: Questionnaire survey of health centers
Annex 5: Field Manual
Annex 6: SPSS syntax for data transformation
Annex 7: Description of Duties and Terms of Reference for Local Company
Annex 8: Data set of the full survey with the population
Annex 9: Data set of the full survey with Health Centers
Annex 10: Pocket PC Creations Population Survey Application software
Annex 11: Pocket PC Creations Health Center Survey Application software