

Quality of Health Services in USAID/ Madagascar target areas
Results from the 2006 data round
FINAL DRAFT

Gilles Bergeron and Alison Tumilowicz

The Food and Nutrition Technical Assistance (FANTA) Project

Academy for Educational Development
1825 Connecticut Avenue, NW
Washington DC 20009-5721

[This report was made possible through the support provided to the Food and Nutrition Technical Assistance (FANTA) Project by USAID/Madagascar and the Office of Health, Infectious Disease and Nutrition of the Bureau for Global Health at the U.S. Agency for International Development, under terms of Cooperative Agreement No. HRN-A-00-98-00046-00 awarded to the Academy for Educational Development (AED). The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.]

Acknowledgements

The authors wish to acknowledge the support of USAID/HPN staff in Madagascar, including Wendy Benazerga, Lynne Gafikin, Mike Part, Benjamin Andriamitantoa, Jocelyne Andriamiadana, Noe Henri Rakotondrajaona and Faramalala Raharisolo, who all made important contributions to the conceptual model used in this survey. Numerous staff from SanteNet, and other USAID partners—too many to be listed here—helped refine the instruments and clarify the contents of the programs promoted by USAID. We thank them for their collaborative spirit and the openness with which they accepted what was to be, after all, a critical review of their programs. The PENSER team carried out the survey under the supervision of Robertine Rahamalala and Seli Ratovon. At FANTA, Megan Deitchler helped with the design of the survey. We are grateful to all those people for their help and support. Any error remains, obviously, the sole responsibility of the authors.

Gilles Bergeron and Alison Torres Tumilowicz, April 30th, 2007

**Quality of Health Services in USAID target areas in Madagascar
Results from the 2006 data round – Final Draft**

Table of Contents

Acknowledgements	2
Table of Contents	3
1. Introduction	5
2. Methodology	7
2.1. LQAS	7
2.2 Samples and Supervision Areas: The Population-based survey	8
2.3. Samples and Supervision Areas: The Facility-based survey	9
2.5. Data collection and time table	10
3. Main Results	12
4. Results from the Population-based survey	13
4.1. Family Planning	13
Knowledge of, and access to Family Planning methods.....	13
Dissemination of information.....	13
Practices.....	14
Summary and recommendations on the Family Planning section.....	15
4.2. Water access, water treatment and diarrhea	16
Water Access.....	16
Water Treatment.....	16
Diarrhea.....	17
Dissemination of information on diarrhea.....	18
Summary and recommendations from Water Access, Water treatment and Diarrhea.....	18
4.3. Malaria	20
Risk and Prevention.....	20
Treatment.....	21
Dissemination of information on malaria.....	22
Summary and recommendations from Malaria Population Survey.....	22
4.4. Sexually Transmitted Infections and HIV	23
Knowledge of HIV.....	23
Knowledge of Sexually Transmitted Infections (STIs) other than HIV.....	24
Sexual practices and STI experience.....	25
Dissemination of information on HIV and STI (Table 4.5 and 4.6).....	25
Access to condoms and treatment for STI (Table 4.7).....	26
Summary and recommendations on STI and HIV.....	26
4.5. Child Health and Nutrition	27
Vitamin A and Iron Rich Foods (Table 5.1).....	27
Breastfeeding.....	28
Immunizations and Vitamin A (Table 5.3).....	29
Dissemination of information on child nutrition (Table 5.4).....	29
Summary and recommendations.....	30
4.6. Antenatal and post natal care	31
General Questions Concerning Antenatal Care.....	31
Prenatal Consultations.....	31
Iron and Folate Supplementation.....	32
Vitamin A Supplementation.....	33
Malaria prevention during pregnancy.....	33
Tetanus.....	34
Delivery.....	34
Summary and recommendations.....	34

Chapter 5. Results from the facility-based survey	36
5.1. Family Planning.....	36
Display of information.....	36
Services provided	37
Norms and procedures in the collection and use of data	37
Staff resources	37
Supplies and equipment.....	38
Tiaht amendment.....	38
Summary and recommendations on CSB Survey results for Family Planning.....	39
5.2. IMCI	41
Education of mothers in the management of childhood illness	41
Norms and procedures	41
Human and material resources.....	41
Conclusions and Recommendations on IMCI from Facility Based Survey.....	42
5.3. STI and HIV	45
Display of information.....	45
Services provided	45
Norms and procedures in the collection and use of data	45
Human and material resources.....	46
Conclusions and recommendations on CSB Survey results	46
Services provided	49
Norms and procedures in the collection and use of data	49
Human and physical resources	50
Conclusions and recommendations on CSB Survey results	50
Annexes	53

**Quality of Health Services in USAID/ Madagascar target areas
Results from the 2006 data round – Final Draft**

**Gilles Bergeron and Alison Tumilowicz
Food and Nutrition Technical Assistance (FANTA) Project**

1. Introduction

The United States Government is supporting the implementation of a variety of health, population and nutrition interventions in Madagascar. The activities are implemented by local partners, with the quality of services being monitored by the USAID/HPN Office in Antananarivo. To better fulfill its oversight responsibility, the USAID/PHN Office commissioned a survey from the Food and Nutrition Technical Assistance Project (FANTA) to (i) provide necessary information for routinely monitoring the quality and effect of services and interventions delivered; (ii) identify under-performing services and interventions, and offer recommendations to overcome identified challenges; and (iii) document yearly the key SO and IR indicators required to track SO5 performance

The HPN Office’s Strategic Objective 5 (SO5) “Increased use of selected health services and products and improved practices” includes 4 Intermediate Results, the first three constituting the basis of this survey¹:

- 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

Health services and products are provided in the areas of Malaria Control, Child Survival, Child Nutrition, Reproductive Health, Family Planning, Neonatal/Maternal Health, STI and HIV/AIDS. Several key indicators were selected to track performance, among which the following:

- % of children under one year old having the full series of immunizations for Diphtheria, Pertussis and Tetanus (DPT3) (SO level)
- % of women from age 15-49 who are using (or partner using) a modern method of contraception (SO level)
- % of children under 6 months exclusively breastfed (SO level)
- % of children under 5 years receiving Vitamin A supplementation (SO level)
- % of youth aged 15-24 who used a condom the last time they had sex (SO level)
- Caretaker knowledge about home case management of childhood illnesses (IR 1 level)
- Stock out of selected products (IR 2 level)
- Proportion of households with a treated mosquito net (IR 2 level)
- Proportion of households with access to water (IR2 level)
- Cold chain functioning at the facility (IR3 level)

¹ The fourth IR is not amenable to evaluation through survey instruments

The institutional arrangements under which the services and products are provided are complex, yet may be roughly summarized as follow:

- SanteNet (USAID/Antananarivo SO5's bilateral program, operated by Chemonics) provides services and products through community based agents linked to the Centres de Sante de Base (CSBs), in four of the six provinces of the country (Antananarivo, Fianarantsoa, Toamasina, Toliara). It promotes demand for services and mobilizes the community to actively engage in improving its own health through a "Champion Commune" (Kominina Mendrika) approach. By the end of FY2006, SanteNet was providing support to 79 Communes.
- PSI promotes the availability and use of health-based products (contraceptives, malaria treatment and bednets, STI treatments, water purifier) via social marketing campaigns and the organization of product distribution through private commercial operators. In this way, PSI products and services reach locations all over the country. PSI also supports demand creation and quality of services through training, IEC and supporting a network of private clinics. PSI supports SanteNet in communes in which its partners are working to ensure availability of key products.
- A series of other partners provide products and services in diverse geographic areas, often in coordination with SanteNet and/or PSI. Some are dedicated to specific issues (such as Alliance, essentially focused on HIV/AIDS) while others incorporate health, population or nutrition concerns as part of their wider mandate (e.g. WWF and CI integrate family planning interventions as part of their effort to reduce population pressure and support development in key conservation areas; likewise, ADRA, CARE and CRS, the three Title II CSs, incorporate HPN activities as part of their food security mandate).
- Two partners (ADRA and MCDI) receive Child Survival Grants to support focused interventions in 53 Communes (ADRA's Child Survival program is managed separately from the ADRA Title II program).

The monitoring system set up by FANTA was meant to reflect the diversity of services and products offered, as well as the complexity of institutional arrangements with local partners. Whereas most key indicators require that population-level information be collected, a few indicators demand that facility based visits be also done (particularly, to document the presence of DepoProvera, USAID's flagship product for Family Planning; and to verify proper cold chain operation). To this end, two separate surveys were developed, one focusing on the health facilities (CSBs, or Basic Health Centers) where products and services are provided; the other focusing on the target populations who receive services or otherwise benefit from the actions of USAID-funded health partners. The population based survey is meant to assess the utilization of all services and products by target beneficiaries (SO) as well as the demand for and availability of services and products at the household level (IR1 and IR2), while the facility-based survey is meant to document the provision of facility-based services and products by USAID partners (IR2 and IR3).

2. Methodology

2.1. LQAS

For reason of economy, the Lot Quality Assurance Sampling (LQAS) approach was used. LQAS is a subset of Total Quality Control methods, initially developed to evaluate the quality of output in industrial production processes. It is also widely used now to assess the quality of service delivery in development interventions (public health, education, food aid, etc). LQAS is based on binomial statistical theory: after randomly selecting a small 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 standard. The outcome of this test is always dichotomous, and can take only one of two values: Pass or Fail. If the number of “defective” (fail) items in the sample exceeds a predetermined number, then the lot is “rejected”; otherwise it is deemed to meet the standard and is accepted. The production unit (the machine or the unit that produced the lot) is deemed to function properly if the lot is accepted; and to need calibration if the lot is rejected. In the context of development interventions, aspects such as beneficiary satisfaction, or adoption of recommended practices, can be tracked with LQAS to determine quickly whether expected performance levels are attained. Having determined which goals have been attained, and which have not, should help program manager decide where to direct their attention to improve program performance.

The key advantages of LQAS is its low cost: using principles of cumulative probabilities, only a small sample (typically, $n=19$) is needed to judge whether the performance of the production unit on a given test reaches the desired standard. The flip side of this is that the sample being so small, it does not permit further disaggregation of the data—since it is already maximally efficient, i.e. as small as can be. Any further breakdown of that optimal sample size (whether for analysis purposes², or because the complete sample was not covered), reduces the number of valid (Yes/No) answers to a point where the reliability of the results very rapidly becomes questionable. A good LQA sample is thus one that is complete, unstratified, and where all sample units did produce a dichotomous answer to the question of interest.

An additional feature of LQAS is that it can be used to estimate prevalence rates on indicators such as vaccination coverage, if the data is collected on the same variable in four or more LQA sub-samples or “supervision areas” (SAs) (for instance, by collecting the same information in the four districts of a given province; or among four different implementing partners of the same intervention). This feature makes LQAS a valuable alternative for the estimation of common development indicators, such as “immunization rate”, or “% of children under 6 months who are exclusively breastfed”—not only does it provide a means to test which of the SAs has met the performance benchmark (and which one has not) but also, it allows to state the relative prevalence of the indicator in the population of interest—a value that would otherwise only be

² This means it is not possible to further breakdown the sample by gender, wealth or any other mediating variable to see if, say the adoption of a particular practice is affected by such mediating factors. The aim of LQAS is assessment, not analysis.

available through expensive exercises such as the Demographic and Health Survey. Having the means to (i) test frequently (e.g. yearly) whether their objectives meet expectations; and (ii) to estimate the current prevalence rates of key indicators, allows program managers to ensure the program is kept on track and performance is monitored.

2.2 Samples and Supervision Areas: The Population-based survey

As mentioned already, an efficient LQA Sample is narrowly tailored to the indicator it is meant to track. To document the Madagascar indicators listed above, five subsamples were drawn at the population level, each covering one or a set of closely related indicators:

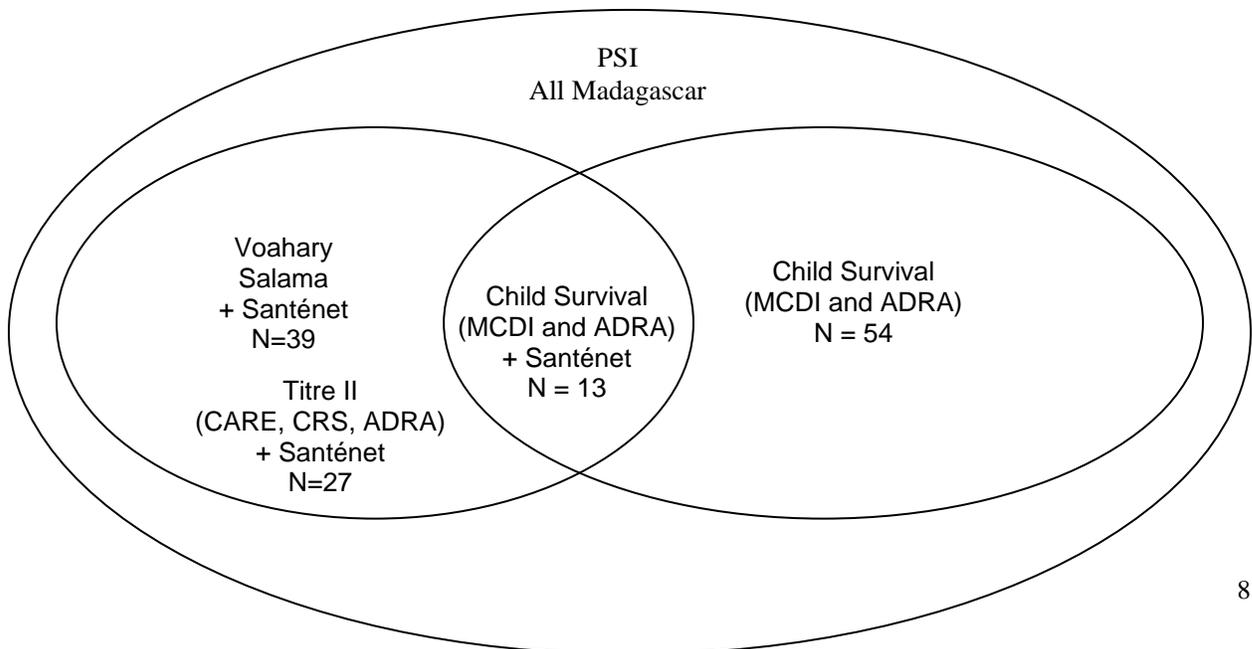
- Mothers of children 0-6mo (to document exclusive breastfeeding rates)
- Mothers of children 12-24mo (to document immunization coverage)
- Mothers of children 6-60mo (to document Vitamin A coverage)
- Women of reproductive age (15-49) (to document reproductive health issues)
- Men of reproductive age (15-49) (to document reproductive health issues)

Furthermore, four Supervision Areas (SAs) were distinguished in order to (i) create a large enough sample to allow for parametric estimation; (ii) enable comparisons between various actors or groups of actors; and (iii) reduce the complexity of the comparison between the diverse partners operating in Madagascar. The four SAs are the Communes where:

- The Child Survival grantees work with SanteNet
- The Child Survival grantees work without SanteNet
- The three Title II partners (ADRA—non-Child Survival communes, CARE and CRS), work with SanteNet
- The smaller Sante-Net funded Vohary Salama partners, work with SanteNet

The total universe (sampling frame) in 2006 consisted of 133 communes. Of those, 79 were covered by SanteNet in association with some other group; and 54 were operated under the Child Survival program, without SanteNet involvement. This provides the basis for the sampling model used in 2006, as represented in Figure 1 below, and in Table 1.

Figure 1: Sampling Frame



The size of subsamples was set at 21 respondents, based on a 7x3 cluster factorial (three respondents randomly selected in each of seven primary clusters). Usually, LQAS assumes Simple Random Sampling (SRS) but such a scheme would impose high costs on the survey (one may have to travel to 21 different sites in order to complete this sample) so a cluster sampling scheme was preferred to reduce the need to travel to too many sites. Computer simulations performed to estimate the effect of clustering on the precision of the findings concluded that the 7x3 factorial had no significant effect on error rates (Olives, 2006). Thus the 21 respondents in each sub sample were drawn by visiting seven randomly selected Communes in each Partner group, and sampling three eligible respondents from that subsample in each Commune.

Table 1: Matrix for the population survey sample

	Mothers of children 0-6m	Mothers of children 12-24m	Mothers of children 12-60m	Women of reproductive age (15-49y)	Men of reproductive age (15-49y)	Total
Child Survival	21	21	21	21	21	105
CS + SNet	21	21	21	21	21	105
Title II + SNet	21	21	21	21	21	105
Voahary Salama + SNet	21	21	21	21	21	105
TOTAL	84	84	84	84	84	420

2.3. Samples and Supervision Areas: The Facility-based survey

In addition to the indicators documented via the population based survey, a series of observations were made in each Centre de Sante de Base (CSB) providing services to the Commune visited by the team. These CSBs were, by definition, ones where one of the USAID-funded program is active—since all communes were “*Komina Mendrika*”. In case there was more than one CSB in that Commune, only one was visited, after being selected randomly by the team’s supervisor. The Map in Figure 2 presents the Communes that were visited for both the population and facility-based survey, identified by the partner group bringing support to each Commune.

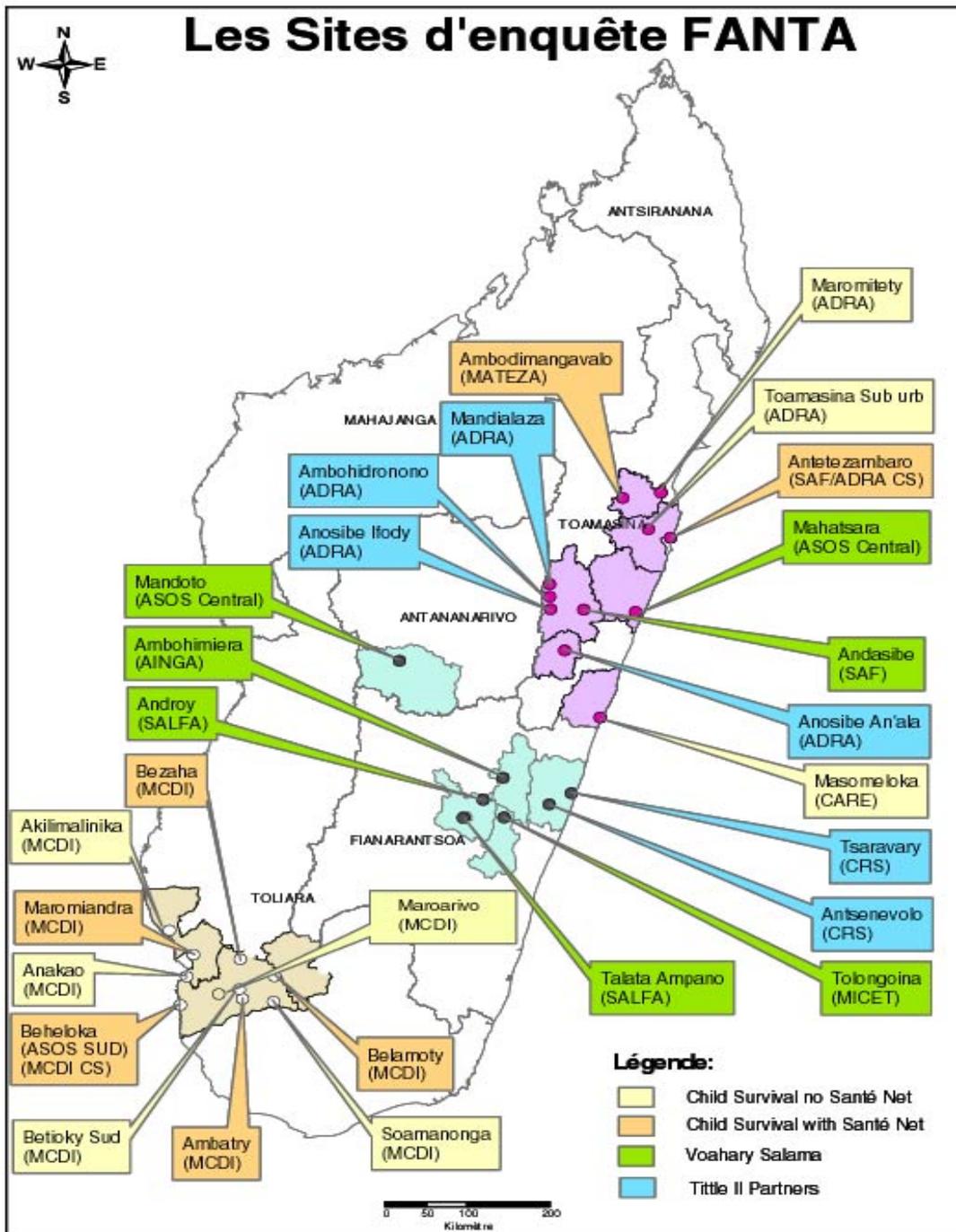
2.4. Indicators and instruments

Facility-based survey

The selection of indicators for the CSB survey reflects the list of standards expected to be met by the CSBs supported by SanteNet within the *Komina Mendrika* communes. In its documentation, SanteNet proposes 90 such standards, and expects CSBs to reach at least 40% of those in the first year, with performance expectations rising as years go by. Layers cannot assess whether this 40% target is reached since many standards require the direct observation of a patient consultation by the enumerator, something Layers cannot do³. As not all standards could be observed, we could not assess whether at least 40% of them were attained. Instead a subset of key individual standards were tested, with a judgement being made in each case whether that individual standard met a benchmark of 50%⁴. If so, a classification of “Success” was applied to that standard.. The resulting information provides useful recommendations to SanteNet as to which standards are met at the “satisfactory” level and which ones need to be strengthened.

³ Enumerator’s visit are unannounced, and the visit rarely coincide with actual consultations.

⁴ That 50% benchmark was arbitrarily defined after discussion with USAID and SanteNet staff.



2.5. Data collection and time table

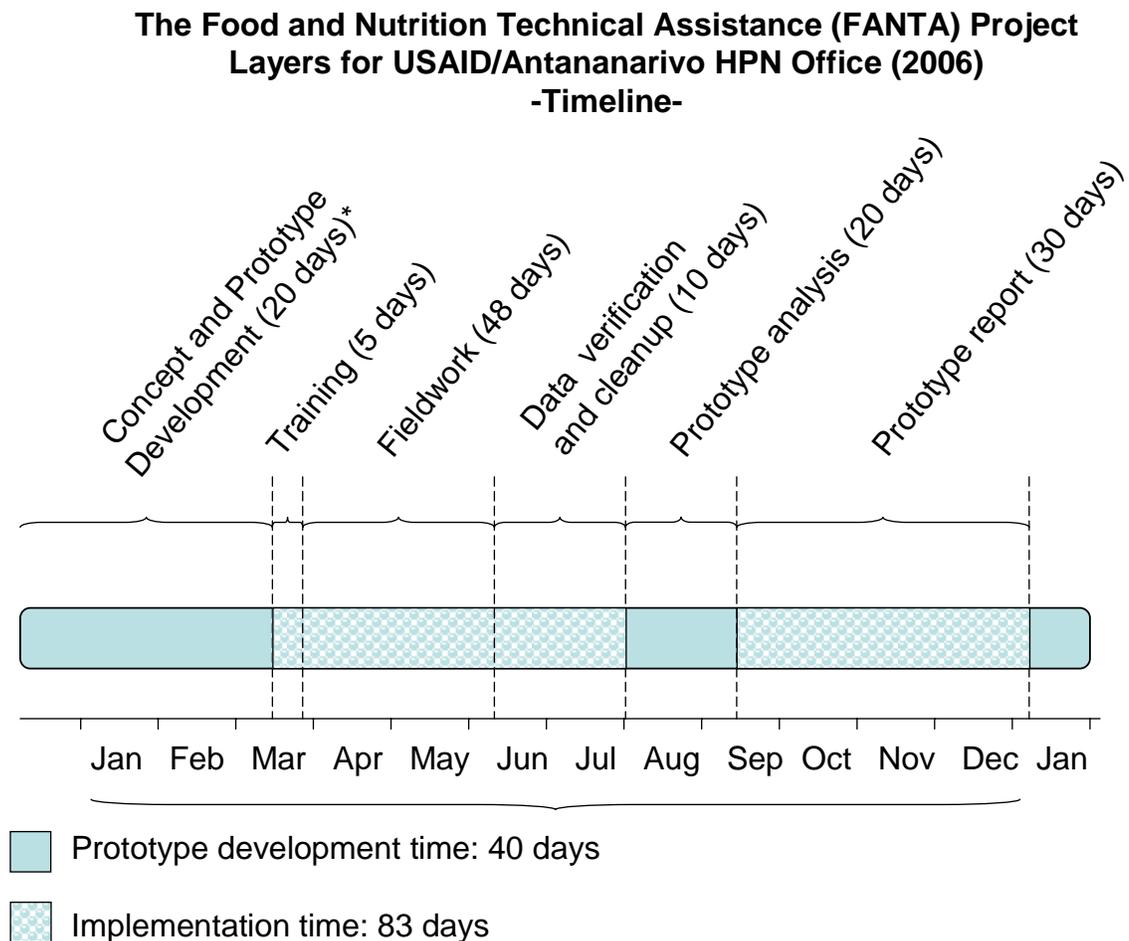
The firm PENSER, a local contractor, was selected through a competitive bid to collect and process the Layers data. FANTA trained PENSER in the methodology used, the operation of

PDAs, and the design of the instruments. Post-training tests were conducted to ensure appropriate standardization among enumerators.

Data was collected between March 28th, 2006 and July 8th, 2006. After the data collection phase, FANTA replicated a randomly selected, small number of interviews (5%) for quality control purposes (see Figure 2 for timeline of the entire process). Several documents are available on the CD ROM that accompanies this report, that document the entire process, including:

- The inception reports produced by PENSER under its contract
- The instruments used, including the PDA programs
- A plan of field logistics.
- A review of the field work process (dates, exact number of forms filled by Cluster, etc, reports on issues that may affect the interpretation of data, changes made during the field phase).
- The full dataset in PPCC format and in SPSS format, with analysis syntax.

Figure 2: Timeline for this activity



3. Main Results

The results sections contain three chapters. The first one (Chapter 3) presents briefly the main indicators used by the Health, Population and Nutrition (HPN) Office at USAID/Madagascar to reflect on the overall performance of its program. Those indicators are used by HPN in its yearly report to Washington. Chapter 4, next, presents the results from the population-based survey, while Chapter 5 presents the results from the facility-based survey. Chapters 4 and 5 are in turn divided into sections, as follows: Chapter 4 (reporting on the Population-based survey) covers (i) Malaria; (ii) Water and Sanitation; (iii) Family Planning; (iv) HIV/STI; (v) IMCI; and (vi) Antenatal/post natal care. Performance in each of those sectors of intervention is reviewed in terms of respondents' knowledge, practices, and access to products and services. Similarly, Chapter 5 (reporting on the results from the facility-based survey) covers four areas: Family Planning; Sexually Transmitted Infections and HIV; Focalised Prenatal Care; and Integrated Management of Childhood Illnesses. For each areas, the issues covered include: Programs and Services Offered; System Management and Record Keeping Systems; and Human and Material Resources. In addition the technical platform is reviewed on issues such as infrastructure, drugs and supplies, and the system for prevention of infections.

Key Indicators

Although the population and facility surveys collected information on a large number of variables, only a subset of them is needed by HPN to report on its activity to Washington. Those indicators are listed below, in Table 3.1.1.⁵

% of children under one year old having the full series of immunizations for Diphtheria, Pertussis and Tetanus (DPT3)	76.2%
% of women from age 15-49 who are using (or partner using) a modern method of contraception	20.7%
% of children under 6 months exclusively breastfed	86.7%
% of children 12-60mo receiving Vitamin A supplementation	65.5%
Caretaker knowledge about home case management of childhood illnesses ⁶	18.3%
Stock out of selected products ⁷	Satisfactory
Proportion of households with a treated mosquito net	51.2%
Proportion of households with access to safe water	33.1%
Cold chain functioning at the facility	Satisfactory ⁸

More information is provided in Chapters 4 and 5 on each of those indicators, with comparisons made in several instances to the rates observed in the country as a whole as reported by the 2004 Demographic and Health Survey (DHS).

⁵ There are more indicators that are reported to USAID/Washington, but the list here corresponds to those provided by this survey.

⁶ Proxied by the “% of respondent stating at least 2 things to do when a child has diarrhea”

⁷ Depo Provera is the index product for this indicator. The “Satisfactory” rating indicates that at least 50% of CSBs had DepoProvera in stock. See Methodology section for explanation of such ratings. In this case, 16 of 27 CSBs were found to comply with this standard.

⁸ Aspects considered in this indicator are: (a) there is a refrigerator dedicated to vaccine storage; (b) the refrigerator is equipped with a thermometer; (c) the temperature recording card is displayed; and (d) the temperature recording card is correctly filled in. To have a functioning cold chain, all the above items must verify positively.

4. Results from the Population-based survey

4.1. Family Planning

The population survey collected information on Family Planning amongst both men and women. Although we recognize the importance of men in the decision of using family planning methods, the focus here is on women—particularly, mothers of children 12-24 months; mothers of children 12 to 59 months; and women of reproductive age (14-49 years of age). Comparisons are made where possible with findings from other surveys, to show trends in use of family planning methods in Madagascar; and to contrast national averages to those in USAID intervention areas.

Knowledge of, and access to Family Planning methods

Obtaining knowledge about family planning and its various methods is the first step towards an appropriate and timely use of contraceptives. Data on knowledge of contraception was collected by asking respondents to spontaneously mention all the modern methods they were aware of. Next, respondents were asked about their knowledge of the specific contraceptive products that are promoted by USAID's partners (PillPlan and Confiance) as well as any other oral contraceptives they were aware of. Access to those products was finally assessed by asking whether the respondent knew where to obtain PSI-distributed products nearby (less than 5km away) and whether they thought its price was affordable. Since this information concerns knowledge of products—and not actual usage—all survey respondents are included in this tabulation.

Table 4.1.1. Family Planning Key Results

Percentage of respondents that	N Yes/ Total N		Sample Group					Partner Group			
	Yes		0-6	12-24	12-59	F 15-49	M 15-49	CS+S N	CS	T- II+SN	VS+ SN
Use a modern family planning method	75/253	29,6		28,6	29,8	30,6		25,7	21,0	19,0	17,1
Know of any method of family planning	332/420	79,0	79,5	81,0	86,9	83,5	64,3	74,3	68,6	84,8	88,6
Stated at least three modern family planning methods	122/332	36,7	37,9	36,8	32,9	43,7	31,5	37,2	20,8	42,7	43,0
Stated pills are effective to prevent pregnancies	306/420	72,9	68,7	75,0	76,2	80,0	64,3	64,8	59,0	88,6	79,0
Stated injectables are effective to prevent pregnancies	306/420	74,8	73,5	77,4	77,4	80,0	65,5	64,8	61,0	90,5	82,9
Ever receive information on family planning	256/420	61,0	56,6	70,2	63,1	63,5	51,2	55,2	46,7	70,5	71,4
Received info on family planning in the last 3 m	125/420	29,8	42,6	44,1	54,7	44,4	60,5	50,0	28,6	59,5	50,7
Know PillPlan	186/420	44,3	38,6	46,4	52,4	50,6	33,3	56,2	40,0	29,5	51,4
Identify PillPlan as an anticontraceptive drug	174/186	93,5	96,9	94,9	95,5	95,3	82,1	91,5	97,6	93,5	92,6
Know where to obtain PillPlan nearby (<5km)	147/186	79,0	87,5	82,1	77,3	72,1	78,6	81,4	66,7	64,5	94,4
State the price of PillPlan affordable	161/186	86,6	87,5	92,3	95,5	74,4	82,1	88,1	76,2	90,3	90,7
Know of other oral anticontraceptives	33/420	7,9	6,0	6,0	8,3	16,5	2,4	7,6	6,7	15,2	1,9
Know where to obtain other oral contraceptives nearby	28/33	84,8	100	80,0	85,7	85,7	50,0	87,5	85,7	81,3	100
Know Confiance	30/420	7,1	3,6	4,8	15,5	5,9	6,0	7,6	8,6	3,8	8,6
Identify Confiance as an anticontraceptive drug	29/30	96,7	100	100	92,3	100	100	87,5	100	100	100
Know where to obtain Confiance nearby (<5km)	18/30	60,0	100	50,0	53,8	60,0	60,0	100	44,4	50,0	44,4
Think Confiance is available there now	15/30	50,0	100	25,0	46,2	40,0	60,0	100	33,3	25,0	33,3
State the price of Confiance is affordable	26/30	86,7	66,7	100	100	80,0	60,0	75,0	88,9	100	88,9

Dissemination of information

Six out of every ten respondent (61%) stated having received information on family planning at some point in time; half of them (29.8%) declaring having received such information in the course of the last three months. This information was generally conveyed to respondents by

community health agents, health workers, and radio or television (mentioned by 44.5%, 39.5% and 24.2% of respondents respectively).

Thanks to those information dissemination efforts, and probably also through word of mouth, most (79%) respondents stated knowing at least one method of family planning. Among those, 36.7% could name three or more modern methods--most often anticontraceptive pills (91.3% of respondents who named three or more methods named it) and injectables (89.5%). Implants and condom were also mentioned but less frequently (24.7% and 23.5% of respondents who knew three or more named those, respectively).

To ask respondents knowledge of the specific products promoted by USAID's partners, enumerators were instructed to show respondents a package of the product, and to ask them to identify its use. With regards to PilPlan 44.3% of respondents stated recognizing the package, and almost all of them (93.5%) correctly identified its use as an oral anticontraceptive. The other contraceptive product promoted by USAID and its partners, Confiance, is much less known: only 7.1% positively recognized the package⁹. Of those, however, almost all (96.7%) correctly identified its use as an injectable contraceptive. Few respondents were also knowledgeable about other oral contraceptives: 7.9% said they knew other oral contraceptives besides PilPlan. Most of those who recognized the promoted products knew where to find them nearby (79% for PilPlan, 60% for Confiance); were of the opinion that it was currently available at that site (69.9% for PilPlan, 50% for Confiance), and said the product was affordably priced (86.6% and 86.7% respectively). In summary, then, access seems to be adequate—although the low brand recognition of Confiance could certainly be the subject of a sensitization campaign.

Practices

Preventive contraceptive rate is measured by the percentage of women that stated using a modern contraceptive method at the time of the survey. Three out of every ten women we interviewed (29.6%) stated being current users of a modern family planning method--most usually injectables (54.6%) or anticontraceptive pills (45.3%). The proportions are very similar across the three sample groups considered for this indicator¹⁰. Other methods such as implants, IUDs and vaginal tablets are rarely used (less than 2 of respondents each); while condom use was mentioned only by our male respondents, whom are not considered in the tabulation of this indicator.

The Layers survey numbers on the use of Family Planning methods suggest that improvements are taking place in Madagascar compared to earlier surveys and to non-USAID intervention areas: in 1997, the DHS showed a national rate of 7.2% on the use of modern FP methods. By 2005, this rate had almost doubled at the national level (to 14.0%) and quadrupled in USAID

⁹ This is curious: recall that an injectable contraceptive is the most common form of family planning method used by our respondents, and few other products than Confiance are found in the country. Perhaps the reason for such low knowledge is that people may not see the package itself, when they receive the injection—thus the low rate of positive identification of the product.

¹⁰ Note the restricted sample from which his information is drawn: mothers of children 0-6 months were excluded, as potentially protected by LAM. Men of reproductive age were also not considered in the denominator. The indicator thus uses the following samples: “Mothers of children 12-24mo”; “Mothers of children 12-59mo”; and “Women of reproductive age”.

intervention areas. Similarly in this survey, rates across all USAID partner groups are higher than the national averages, with SantéNet-supported Child Survival partners faring best.

Summary and recommendations on the Family Planning section¹¹

The main findings of the survey on the Family Planning section are as follow:

- Knowledge about Family Planning in general, and about specific Family Planning methods in particular, seems widespread in target areas. Although only three of every ten respondents mentioned having obtained Family Planning information in the last three months, eight of every ten respondents could identify a particular Family Planning method (generally, contraceptive pills or injectables); and half mentioned knowing three or more such methods.
- Curiously however, the specific products promoted by SanteNet and its partners were not widely recognized by respondents when shown the package—nor were any other products.
- At the same time, those who know the specific products promoted by PSI and SanteNet generally know where to find them, and consider them to be affordably priced. However, they appear less certain about current availability. It is not possible to state whether this sentiment is motivated by actual knowledge, past experience, or simply a reluctance to affirm a fact that they do not truly know.
- The survey found that about thirty percent of respondents use modern contraceptive methods. Although our finding on this issue comes from responses given by the sub sample of women of reproductive age, we find the rates to be very similar among interviewees from other sample groups, to whom the questions were also asked (i.e. women of children 12-24 months, and women of children 12-59 months). Differences in use between those groups are very minimal.

Based on those findings, the following recommendations are made:

- The program seems to be doing well. Still, our data suggests that improvements could may be made in terms of raising people’s awareness of the diversity of products available; and in terms of associating those various options with specific brand names
- There may be a need to investigate the actual availability of products at key distribution points, since respondents seemed uncertain whether they would find them if they sought them the day of the interview
- Although rates of use of modern family planning methods appear to be higher in the USAID target areas, there is still considerable room to grow. In part, adoption may be limited by the relatively low level of exposure to Family Planning messages. Thus, SanteNet and its partners should assess its information dissemination strategy, and verify that it is duly carried out by agents in the field.

¹¹ Questions covering Tiahr amendment concerns were all directed at the CSB staff, and therefore are found in the CSB survey section.

4.2. Water access, water treatment and diarrhea

The population survey collected information on water access, water treatment and diarrhea from all households visited (n=420). Therefore, answers represent all of the sub-samples, including: mothers of children 0-6 months; mothers of children 12-24 months; mothers of children 12-60 months; women 14-49 years of age; and men 14-49 years of age.

Water Access

Across USAID partner groups, one-third (33.1%) of interviewees stated having access to a safe water source less than 15 minutes from their home. Notably, significantly fewer households (16.2%) have access to safe water in the T-II+SN group. The most common water access points are public or neighbor's tap (23.8%) and protected well (7.6%).

Table 4.2.1. Water access

Percentage of respondents that	N Yes/ Total N	Yes	Sample Group					Partner Group			
			0-6	12-24	12-59	F 15-49	M 15-49	CS+SN	CS	T-II+SN	VS+S N
Have access to a safe water source <15 minutes away	139/420	33,1	36,1	31,0	31,0	35,3	32,1	37,1	43,8	16,2	35,2
Access to safe water is a public or neighbor tap	100/420	23,8	30,1	22,6	26,2	20,0	20,2	33,3	35,2	2,9	23,8
Access to safe water is a public/neighbor protected well	32/420	7,6	4,8	9,5	4,8	10,6	8,3	8,6	10,5	11,4	0,0

Water Treatment

Interviewees were asked to list all the ways they know to treat water in order to make it safe to drink. Most interviewees (88.3%) could state at least one such method, the most common one being boiling (66.4%), followed by treating water with a product (54.5%). A separate question asked interviewees to name products used for water treatment. Three-quarters (75.7%) of all interviewees could name at least one product, Sur'Eau (71.4%) and bleach (12.4%) being most frequently cited. When asked in particular about Sur'Eau, over three-quarters (78.8%) of respondents reported being familiar with it. Of those that were familiar with Sur'Eau (n=331), however, only 55.0% knew the correct dosage of the product.

Across USAID partner groups, half of interviewees (52.4%) know where to get Sur'Eau within five kilometers of their home. Of those that know where to get Sur'Eau (n=220), most believed it to be affordable (90.0%). Fewer interviewees (72.3%) stated that Sur'Eau is currently available at the place they would go to get it, however.

Note that in the CS partner group, fewer interviewees than elsewhere mentioned treating water with a product (35.2%), could name at least one product (59.0%), were familiar with Sur'Eau (53.3%), and knew where to get Sur'Eau close by (27.6%). Therefore, it appears that Sur'Eau is not as well known in the CS partner group area as in other partner areas.

The percentage of interviewees that report using a water treatment method within the last 24 hours varies between 59.0% (CS) to 88.6% (VS+SN) across USAID partner groups, with a means of 71%. Interviewees most frequently reported boiling as the method that they used to treat water (62.4%). More interviewees in the CS+SN (22.9%) and VS+SN (17.1%) groups report using Sur'Eau in the last 24 hours as compared to the TII+SN (11.4%) and CS (7.6%) groups.

Table 4.2.2. Water treatment

Water treatment Percentage of respondents that	N Yes/ Total N	Yes	Sample Group					Partner Group			
			0-6	12-24	12-59	F 15- 49	M 15- 49	CS+S N	CS	T- II+SN	VS+ SN
<i>Knowledge</i>											
Stated at least one water treatment method	317/420	88,3	85,5	85,7	92,9	94,1	83,3	86,7	76,2	95,2	95,2
Stated boiling as water treatment method	279/420	66,4	60,2	65,5	77,4	77,6	51,2	61,9	61,0	76,2	66,7
Stated treating with product as water treatment method	229/420	54,5	53,0	54,8	48,8	58,8	57,1	52,4	35,2	57,1	73,3
Stated at least one product used for water	318/420	75,7	69,9	75,0	75,0	78,8	79,8	78,1	59,0	79,0	86,7
Stated Sur'Eau as product used for water	300/420	71,4	63,9	72,6	72,6	74,1	73,8	74,3	46,7	78,1	86,7
Stated bleach as product used for water	52/420	12,4	9,6	15,5	6,0	16,5	14,3	17,1	20,0	6,7	5,7
Stated familiarity with Sur'Eau	331/420	78,8	73,5	81,0	78,6	78,8	82,1	80,0	53,3	87,6	94,3
Know correct dosage of Sur'Eau	182/331	55,0	55,7	51,5	62,1	58,2	47,8	67,9	57,1	42,4	54,5
<i>Access</i>											
Know where to get Sur'Eau close by	220/420	52,4	50,6	51,2	48,8	51,8	59,5	62,9	27,6	41,9	77,1
Stated Sur'Eau is affordable	198/220	90,0	90,5	93,0	92,7	86,4	88,0	90,9	86,2	86,4	92,6
Stated belief that Sur'Eau is available now	159/220	72,3	73,8	69,8	70,7	70,5	76,0	74,2	79,3	72,7	67,9
<i>Practice</i>											
Used at least one water treatment method in last 24 hr	301/420	71,7	77,1	66,7	70,2	76,5	67,9	65,7	59,0	73,3	88,6
Boiled water within the last 24 hours	262/420	62,4	68,7	60,7	61,9	67,1	53,6	54,3	51,4	63,8	80,0
Used Sur'Eau in the last 24 hours	62/420	14,8	15,7	13,1	9,5	14,1	21,4	22,9	7,6	11,4	17,1

Diarrhea

Interviewees were asked to list all of the ways that they know to reduce the risk of a child suffering from diarrhea. Most interviewees could state at least one way (84.5%), although this percentage is less in the CS group (76.2%). The most common responses included: boiling water (47.6%); washing hands (39.3%); and preparing and protecting food hygienically (39.3%).

Variation exists among USAID partner groups concerning recommended actions when a child is sick with diarrhea. Relatively fewer interviewees could list at least two actions in the CS group (9.5%) as compared with the other groups (23.8%, VS+SN; 21.0%, CS+SN; and 19.0%, T-II+SN). The percentage of interviewees that did not know any action related to treating a child sick with diarrhea also varies, ranging from 20.0% in the VS+SN group to 39.0% in the CS+SN group. Half of all interviewees (51.7%) stated that more liquids should be given to the child. However, only one in four (23.3%) mentioned that ORS should be administered and one in ten (9.8%) stated that breastfeeding should be continued.

Half of interviewees (52.9%) reported washing their hands in at least two appropriate times during the day. The most common times they do so are before eating or giving food to others (84.5%) and before preparing food (42.4%). The percentage that reported washing hands after going to the toilet was much lower (24.5%), with relative variations across partner groups: (35.2% and 41.9% in the CS and CS+SN groups respectively; and only 10.5% in both the T-II+SN and VS+SN groups). Even fewer respondents (9.3%) reported washing their hands after changing a diaper or washing the bottom of a child.

Table 4.2.3. Diarrhea

Percentage of respondents that	N Yes/ Total N Yes		Sample Group					Partner Group			
			0-6	12-24	12-59	F 15-49	M 15-49	CS+SN	CS	T-II+SN	VS+S N
Knowledge											
Stated at least one way to reduce risk of child diarrhea	355/420	84,5	84,3	88,1	86,9	91,8	71,4	81,0	76,2	88,6	92,4
Stated boiling water to reduce risk of child diarrhea	200/420	47,6	48,2	52,4	57,1	43,5	36,9	41,9	46,7	53,3	48,6
Stated washing hands to reduce risk of child diarrhea	165/420	39,3	34,9	40,5	45,2	48,2	27,4	30,5	38,1	43,8	44,8
Stated hygienic preparation and protection of food	165/420	39,3	36,1	42,9	41,7	44,7	31,0	35,2	29,5	41,9	50,5
Stated at least two action for when child has diarrhea	77/420	18,3	12,0	21,4	23,8	23,5	10,7	21,0	9,5	19,0	23,8
Did not know at least one action for when child has diarrhea	130/420	31,0	37,3	17,9	27,4	22,4	50,0	39,0	35,2	29,5	20,0
Stated should increase liquids when child has diarrhea	217/420	51,7	44,6	64,3	50,0	60,0	39,3	44,8	47,6	52,4	61,9
Stated should give ORS when child has diarrhea	98/420	23,3	15,7	25,0	36,9	22,4	16,7	17,1	17,1	29,5	29,5
Stated should continue breastfeeding when child has diarrhea	41/420	9,8	13,3	9,5	7,1	14,1	4,8	18,1	7,6	4,8	8,6
Practice											
Stated at least two appropriate times during day that washes hands	222/420	52,9	62,7	54,8	51,2	62,4	33,3	61,0	61,0	45,7	43,8
Stated wahing hands before eating/giving food to others	355/420	84,5	81,9	84,5	81,0	87,1	88,1	83,8	86,7	81,0	86,7
Stated that washes hands before preparing food	178/420	42,4	45,8	47,6	48,8	57,6	11,9	46,7	38,1	44,8	40,0
Stated that washes hands after going to the toilet	103/420	24,5	25,3	23,8	20,2	24,7	28,6	35,2	41,9	10,5	10,5
Stated that washes hands after changing child diapers	39/420	9,3	24,1	10,7	7,1	3,5	1,2	8,6	10,5	7,6	10,5

Dissemination of information on diarrhea

Less than half of interviewees (46.2%) reported ever having received information on diarrhea; fewer interviewees heard information on diarrhea in the last three months (22.6%). Those rates showed relatively large variations among partner groups, with more interviewees in the CS+SN group (62.9%) and less interviewees in the CS group (38.1%) report having received such information. In the CS+SN and CS group, two-thirds or more (78.8% and 67.5% respectively) cite community agents as the most common source of information on diarrhea. In the T-II+SN and VS+SN groups, less than one-third (27.3% and 29.5% respectively) cite community agents. Although health agents appear overall to be less a source of information on diarrhea than than community agents,, especially in the VS+SN group (40.9%).

Table 4.2.4. Dissemination of information on diarrhea

Percentage of respondents that	N Yes/ Total N Yes		Sample Group					Partner Group			
			0-6	12-24	12-59	F 15-49	M 15-49	CS+S N	CS	T- II+SN	VS+ SN
Ever received information on diarrhea	194/420	46,2	44,6	52,4	46,4	45,9	41,7	62,9	38,1	41,9	41,9
Received information within the last 3 m	95/420	22,6	20,5	22,6	32,1	16,5	21,4	39,0	15,2	18,1	18,1
Received information from community agents	104/194	53,6	56,8	52,3	53,8	46,2	60,0	78,8	67,5	27,3	29,5
Received information from health agents	45/194	23,2	32,4	15,9	15,4	41,0	11,4	12,1	20,0	25,0	40,9

Summary and recommendations from Water Access, Water treatment and Diarrhea

The main findings from the water access, water treatment and diarrhea section of the survey are as follow:

- Only a third of all respondents stated having access to a safe water source within reasonable distance from home, highlighting the importance of treating water before consumption.

- Most respondents know at least one way to treat water to make it safe to drink. About half identified Sur'Eau as the product of choice to treat their water, but a large number (half of them) did not know how to dose it properly.
- With regards to practices, seven out of every ten respondents stated having done something to treat their water in the last 24 hours, boiling being the most common approach. Only 15% of respondents reported using Sur'Eau in the last 24 hours to treat their water.
- About half our respondents said they know where to find Sur'Eau, and consider it to be accessible and affordable.
- Most respondents know at least one way to reduce the risk of child diarrhea, the use of safe water, the washing of hands, and hygienic food preparation being the ways most often cited. None of those was individually mentioned by more than half the population, however.
- Survey results on how to treat child diarrhea suggest important knowledge gaps on this issue: a majority could mention one way of treating a child with diarrhea, but very few knew of two or more ways. Key methods such as ORT and continued breastfeeding were mentioned by only a small minority whereas increasing liquid intake, although more readily recognized as a method to treat diarrhea, was mentioned by only half of respondents.
- Knowledge of appropriate times to wash hands is mainly associated with food intake (before and after eating or feeding a child). Very few respondents mentioned that hands should be washed after going to the toilet, or after cleaning a child's bottom.
- Specific information on how to prevent and treat diarrhea does not appear to be widely available-- although this is shown to vary greatly by Partner area.

Based on those findings the following recommendations are made:

- Awareness of the need to treat water appears fairly common, but the means to adequately do so may not be properly understood—boiling is not always effective, and many respondents do not know how to use chlorine-based products correctly. Thus SanteNet and its partners must increase efforts to educate target populations about specific water treatment methods.
- The relatively low use of Sur'Eau, notwithstanding its good availability, indicates a gap in the understanding of the benefits of this approach. PSI and SanteNet should reiterate the importance of this option, continue to promote its systematic use, and highlight its particular benefits over other methods (especially in relation to post-collection storage).
- This survey did not collect information on water storage. This will be covered in future years.
- Given the low levels of knowledge recorded in the survey, messages on the prevention and treatment of child diarrhea should be increased by SanteNet and its partners.
- Messages should focus on specific issues. With regards to prevention, issues of handwashing, particularly after defecation, seem critical. With regards to treatment, all key methods (increase water intake, maintain food intake, use ORT and continue breastfeeding) need to be strongly reinforced.

4.3. Malaria

The survey collected information on malaria from the total sample (n=420). Therefore, answers represent all of the sub-samples, including: mothers of children 0-6 months; mothers of children 12-24 months; mothers of children 12-54 months; women 14-49 years of age; and men 14-49 years of age.

Risk and Prevention

The majority of interviewees know how malaria is transmitted (77.4%) and know that children less than five years of age are at greatest risk if affected by malaria (78.6%). Fewer interviewees spontaneously reported that pregnant women (54.5%), or that both pregnant women and children (46.9%), confront particular risks. Yet three-quarters (77.9%) of interviewees stated at least one reason why pregnant women are at greater risk if affected by malaria, the reasons most frequently cited being spontaneous abortion of the pregnancy (39.3%).

The effectiveness of insecticide-treated bednets (ITN) in protecting against mosquitoes that transmit malaria is well known among interviewees (86.7%). Accordingly, almost all of the interviewees (95.7%) could name at least one way to protect themselves against mosquito bites (usually by sleeping under a bednet). Less known are additional ways to prevent mosquito bites, as only one-third could name two or more ways to do so (30.2%).

Most interviewees (92.1%) stated knowing Super Bednet, PSI's locally distributed brand of ITN. Of the interviewees familiar with Super Bednet, more than three-quarters know where to buy one less than five kilometers from their home (77.0%) and believe it is affordable (79.1%). However, when asked about Super Bednet's availability at these locations, only half stated they thought SuperBednet was currently available at that place (54.7%).

Survey enumerators observed that half of interviewees (51.2%) have at least one ITN in their household. The Madagascar 2003-2004 Demographic and Health Survey reported fewer households having an ITN (39%). Therefore, USAID intervention areas appear to be ahead of the national average reported two years ago.

Despite the number of households with an ITN in the Layers sample, only one in ten interviewees (9.8%) stated sleeping under it the night previous to the survey. Significantly more of the children included in the Layers survey slept under an ITN (37.5%), but this percentage is not markedly higher than the 2003-2004 DHS statistic (36%).

Table 4.3.1. Malaria risk and prevention

Risk and Prevention Percentage of respondents that	N Yes/ Total N	Yes	Sample Group					Partner Group			
			0-6	12-24	12-59	F 15-49	M 15-49	CS+SN	CS	T-II+SN	VS+S N
Knowledge											
Stated malaria is transmitted by mosquitos only	325/420	77,4	77,1	66,7	76,2	84,7	82,1	67,6	64,8	89,5	87,6
Stated children <5 y of age are at greatest risk	330/420	78,6	81,9	81,0	79,8	80,0	70,2	73,3	61,9	93,3	85,7
Stated pregnant women are at greatest risk	229/420	54,5	44,6	54,8	52,4	69,4	51,2	61,9	52,4	52,4	51,4
Stated both children and pregnant women are at risk	197/420	46,9	39,8	45,2	48,8	60,0	40,5	52,4	41,0	50,5	43,8
Stated at least 1 reason why pregnant women are at risk	327/420	77,9	74,7	77,4	76,2	91,8	69,0	74,3	73,3	79,0	84,8
Stated sleeping under ITN protects against mosquitoes	364/420	86,7	85,5	84,5	86,9	89,4	86,9	93,3	74,3	87,6	91,4
Stated at least 1 way to protect against mosquitoes	402/420	95,7	95,2	97,6	94,0	97,6	94,0	96,2	89,5	99,0	98,1
Stated at least 2 ways to protect against mosquitoes	127/420	30,2	30,1	27,4	31,0	40,0	22,6	22,9	23,8	40,0	34,3
Access											
Know Super Bednet	387/420	92,1	89,2	91,7	94,0	95,3	90,5	98,1	81,9	91,4	97,1
Know where to get Super Bednet close by	298/387	77,0	75,7	77,9	73,4	79,0	78,9	76,7	67,4	70,8	91,2
Stated Super Bednets are affordable	306/387	79,1	74,3	80,5	83,5	72,8	84,2	80,6	70,9	79,2	84,3
Stated belief that Super Bednets are available now	163/298	54,7	55,4	53,3	51,7	53,1	60,0	64,6	56,9	50,0	48,4
Practice											
Have at least 1 ITN in home	215/420	51,2	49,4	48,8	42,9	54,1	60,7	73,3	45,7	45,7	40,0
Slept under ITN previous night	41/420	9,8	2,4	6,0	7,1	14,1	19,0	16,2	6,7	8,6	7,6
Stated reference child slept under ITN previous night	94/251	37,5	41,0	40,5	31,0			56,5	31,7	34,9	27,0

Treatment

Nearly three-quarters of interviewees (72.9%) know that they should seek medical attention for a child less than five years of age infected with malaria who develops a high fever. Most (88.8%) also know that they should give anti-malarial treatment within the first 24 hours after the fever starts, and which treatments are appropriate for fever (79.3%). However, less than half of them (40.7%) could state two or more signs of malaria in children.

Interviewees know where to obtain anti-malarial drugs within less than five kilometers from their home (84.3%). The majority (70.0%) also know of PaluStop, the PSI-distributed brand of anti-malarial medication. Of those familiar with PaluStop, almost all (95.9%) correctly identified its purpose when shown the package, stated knowing where to obtain it (89.8%), and considered it affordable (94.9%). PaluStop is also generally believed to be currently available at identified locations (84.8%).

Interviewee practices are aligned with their knowledge and access to malarial treatments. In our sample, 37% of children were found to have had fever in the last two weeks. Within that group, and among the mothers who reported giving treatment to a child that presented malarial symptoms with fever, most gave appropriate medication (92.5%). Mothers consulted someone concerning the child's fever in a little more than half of those cases (62.4%); but only one-quarter of mothers consulted trained medical staff (28.0%). The Madagascar 2003-2004 Demographic and Health Survey reported a larger percentage (39%) of children receiving professional health care when exhibiting symptoms of acute respiratory infection or fever. However, the survey did not contain questions about the severity or duration of the fever. Therefore, the child's illness may not have required medical attention. To be fully informative, additional questions should be made to ascertain the presence of malaria when fever is reported.

Table 4.3.2. Malaria treatment

Treatment Percentage of respondents that	N Yes/ Total N		Sample Group					Partner Group			
	Yes		0-6	12-24	12-59	F 15-49	M 15-49	CS+SN	CS	T-II+SN	VS+S N
Knowledge											
Stated high fever in child <5 y needs medical referral	306/420	72,9	74,7	76,2	66,7	81,2	65,5	67,6	69,5	81,0	73,3
Recognize at least 2 danger signs of malaria in children	171/420	40,7	39,8	33,3	45,2	41,2	44,0	45,7	39,0	36,2	41,9
Stated should give treatment w/in 24 h to child with fever	373/420	88,8	88,0	89,3	88,1	90,6	88,1	87,6	82,9	94,3	90,5
Know appropriate treatment for child with fever	333/420	79,3	77,1	75,0	86,9	82,4	75,0	71,4	59,0	91,4	95,2
Access											
Know where to get any anti-malarial treatment close by	354/420	84,3	86,7	82,1	84,5	85,9	82,1	82,9	69,5	90,5	94,3
Know PaluStop	294/420	70,0	67,5	73,8	71,4	75,3	61,9	74,3	55,2	72,4	78,1
Know purpose of PaluStop	282/294	95,9	96,4	96,8	95,0	98,4	92,3	94,9	91,4	97,4	98,8
Know where to get PaluStop close by	264/294	89,8	96,4	87,1	88,3	87,5	90,4	92,3	77,6	89,5	96,3
Stated PaluStop is affordable	279/294	94,9	98,2	98,4	95,0	95,3	86,5	96,2	87,9	96,1	97,6
Stated belief that PaluStop is available now	224/264	84,8	85,2	90,7	83,0	80,4	85,1	86,1	86,7	80,9	86,1
Practice											
Gave appropriate treatment to child with fever	86/93	92,5	100,0	87,8	97,8			86,7	90,0	97,0	92,0
Consulted someone regarding child's fever	58/93	62,4	66,7	61,0	63,0			66,7	75,0	54,5	60,0
Consulted health staff regarding child's fever	26/93	28,0	33,3	24,4	30,4			26,7	45,0	21,2	24,0

Dissemination of information on malaria

Only half of interviewees (54.0%) reported ever having received information on malaria fever. The proportion of interviewees having heard information on malaria in the last three months is lower (35.7%). The source of information most frequently cited by interviewees was community agents (55.5%). Considering the high level of knowledge among the sample concerning malaria, it is surprising that many interviewees report not ever having received information. Perhaps interviewees discounted information received from peers or neighbors, and considered only the information received from formal sources.

Table 4.3.3. Dissemination of information on malaria

Percentage of respondents that	N Yes/ Total N		Sample Group					Partner Group			
	Yes		0-6	12-24	12-59	F 15-49	M 15-49	CS+S N	CS	T-II+SN	VS+S SN
Ever received information on malaria	227/420	54,0	48,2	54,8	57,1	51,8	58,3	67,6	41,9	48,6	58,1
Received information within the last 3 m	150/420	35,7	31,3	28,6	40,5	36,5	41,7	49,5	20	38,1	35,2
Received information from community agents	121/218	55,5	66,7	56,8	45,7	54,8	55,3	80,9	63,4	34,0	39,0

Summary and recommendations from Malaria Population Survey

The main findings from the malaria portion of the survey are as follow:

- The dangers of malaria to pregnant women are not sufficiently recognized.
- People know about prophylaxis and about ITNs. They also know where one might find them, but seem to think that supply—particularly for ITNs—may be an issue.
- Progress is made nevertheless in ownership of ITNs. At the same time, a surprisingly low proportion of respondents reported having slept under a ITN the night preceding the interview, even though they may own one or more ITNs. The rate of use appears higher among children, but no more so in our sample areas than in the DHS.
- Respondents generally know that a child with fever needs rapid treatment, but only a minority could identify positive signs of malaria in a person. Also, only a small proportion of respondents actually mentioned seeking professional care for a child with fever.
- Information on malaria does not appear to be widely available to respondents.

Based on those findings, the following recommendations are made:

- Knowledge seems to be lacking in some key aspects related to malaria, notably: (i) the particular risk of malaria to pregnant women; and (ii) the identification and recognition of malaria signs. SanteNet and its partners should reinforce messages in those specific aspects.
- With respect to practices, health agents must (i) insist on the importance of always using bednets; and (ii) of referring children to trained health care staff in the case of malaria.
- With regards to access to products--and although there appears to be good availability of prophylaxis drugs—there is a sentiment that bednets are not always available locally. PSI and its partners ought to study this more closely, and reinforce the supply chain where necessary.

4.4. Sexually Transmitted Infections and HIV

The population survey collected information on HIV and STI from all households visited (n=420). Therefore, answers represent all of the sub-samples, including: mothers of children 0-6 months; mothers of children 12-24 months; mothers of children 12-54 months; women 14-49 years of age; and men 14-49 years of age.

Knowledge of HIV

The majority of interviewees (87.4%) have heard of HIV. These findings are comparable to the 2003-2004 Demographic and Health Survey in which 79% of women and 88% of men reported hearing of AIDS. Although the majority (85.0%) correctly described HIV as a disease, only one-third described HIV as an infectious disease (33.3%) or as lethal if not treated (38.1%). Most in

interviewees (84.5%) could state at least one way HIV in which is transmitted, the most commonly cited one being through sexual contact (83.8%) while about one-quarter (27.1%) stated that HIV is transmitted through blood. Only 12 of the 420 interviewees (2.9%) stated that HIV can be passed from mother to child.

Less than half of interviewees (42.1%) named at least two ways to avoid being infected with HIV; less than one in ten (9.0%) named at least three ways to avoid infection. Practicing fidelity (63.3%) and limiting relations to one partner (51.4%) were the most frequently cited methods of avoiding infection. Only two of the interviewees mentioned condoms as a means of avoiding HIV infection.

Table 4.4.1. Knowledge and practices in HIV

Percentage of respondents that	N Yes/ Total N	Yes	Sample Group					Partner Group			
			0-6	12-24	12-59	F 15-49	M 15-49	CS+SN	CS	T-II+SN	VS+S N
<i>Knowledge</i>											

Ever heard of HIV	367/420	87,4	85,5	84,5	83,3	90,6	92,9	90,5	82,9	83,8	92,4
Correctly described HIV as a disease	357/420	85,0	80,7	82,1	82,1	89,4	90,5	88,6	81,9	82,9	86,7
Described HIV as infectious disease	140/420	33,3	30,1	27,4	35,7	27,1	46,4	35,2	32,4	32,4	33,3
Described HIV as lethal disease if not treated	160/420	38,1	31,3	39,3	32,1	58,8	28,6	47,6	45,7	29,5	29,5
Stated at least one way HIV is transmitted	355/420	84,5	80,7	82,1	81,0	90,6	88,1	88,6	80,0	81,0	88,6
Stated only correct answers regarding HIV transmission	345/420	82,1	78,3	78,6	78,6	88,2	86,9	86,7	79,0	78,1	84,8
Stated HIV is transmitted through sexual contact	352/420	83,8	79,5	82,1	81,0	89,4	86,9	86,7	79,0	81,0	88,6
Stated HIV is transmitted through blood	114/420	27,1	22,9	20,2	28,6	36,5	27,4	26,7	21,0	25,7	35,2
Stated HIV is transmitted from mother to child	12/420	2,9	3,6	3,6	1,2	5,9	0,0	4,8	1,0	2,9	2,9
Stated at least three ways to avoid being infected w/ HIV	38/420	9,0	4,8	7,1	8,3	12,9	11,9	7,6	7,6	12,4	8,6
Stated at least two ways to avoid being infected with HIV	177/420	42,1	38,6	35,7	38,1	52,9	45,2	43,8	41,0	41,9	41,9
Practices											
Stated practicing fidelity to avoid HIV	266/420	63,3	62,7	56,0	60,7	65,9	71,4	77,1	62,9	55,2	58,1
Stated limit sexual relations to one partner to avoid HIV	216/420	51,4	47,0	53,6	48,8	64,7	42,9	47,6	44,8	53,3	60,0
Stated avoid sex with sex workers to avoid HIV	30/420	7,1	6,0	3,6	10,7	8,2	7,1	3,8	11,4	11,4	1,9
Stated avoid injections if possible to avoid HIV	24/420	5,7	1,2	7,1	3,6	3,5	13,1	4,8	3,8	3,8	10,5
Stated practice abstinence to avoid HIV	19/420	4,5	1,2	4,8	1,2	8,2	7,1	3,8	1,9	5,7	6,7
Stated use sterile medical equipment to avoid HIV	17/410	4,0	7,2	3,6	3,6	2,4	3,6	2,9	6,7	3,8	2,9
Stated use condoms to avoid HIV	2/420	0,5	0,0	1,2	0,0	0,0	1,2	0,0	1,0	1,0	0,0

Knowledge of Sexually Transmitted Infections (STIs) other than HIV

Fewer respondents are knowledgeable about STIs other than HIV. Six of ten interviewees (59.5%) reporting hearing of STIs other than HIV. Approximately one-quarter of interviewees were able to state at least two signs of STI in women (27.1%) or in men (24.5%). Genital sores and discharge were the symptoms of STI for both sexes most frequently mentioned.

Table 4.4.2. Knowledge of STIs

Knowledge of STI Percentage of respondents that	N Yes/ Total N	Yes	Sample Group					Partner Group			
			0-6	12-24	12-59	F 15-49	M 15-49	CS+SN	CS	T-II+SN	VS+S N
Ever heard of STIs other than HIV	250/420	59,5	50,6	53,6	58,3	63,5	71,4	67,6	68,6	54,3	47,6
Stated at least three signs of STI in women	35/420	8,3	4,8	11,9	10,7	11,8	2,4	11,4	14,3	3,8	3,8
Stated at least two signs of STI in women	114/420	27,1	21,7	29,8	33,3	35,3	15,5	34,3	38,1	19,0	17,1
Stated genital discharge as sign of STI in women	85/420	20,2	19,3	22,6	20,2	22,4	16,7	21,9	18,1	21,0	20,0
Stated genital sores or ulcers as sign of STI in women	78/420	18,6	15,7	17,9	17,9	28,2	13,1	29,5	31,4	7,6	5,7
Stated lower abdominal pain as sign of STI in women	65/420	15,5	18,1	14,3	17,9	20,0	7,1	21,0	27,6	4,8	8,6
Stated foul smelling genital discharge as sign of STI in W	43/420	10,2	6,0	11,9	14,3	8,2	10,7	12,4	14,3	9,5	4,8
Stated itching in genital area as sign of STI in women	39/420	9,3	3,6	9,5	15,5	15,3	2,4	9,5	12,4	7,6	7,6
Stated pain during urination as sign of STI in women	29/420	6,9	3,6	11,9	10,7	5,9	2,4	8,6	7,6	6,7	4,8
Stated at least three signs of STI in men	37/420	8,8	7,2	4,8	7,1	14,1	10,7	9,5	11,4	8,6	5,7
Stated at least two signs of STI in men	103/420	24,5	18,1	17,9	20,2	28,2	38,1	26,7	34,3	21,0	16,2
Stated genital sores or ulcers as sign of STI in men	102/420	24,3	19,3	20,2	22,6	32,9	26,2	35,2	35,2	10,5	16,2
Stated genital discharge as sign of STI in men	81/420	19,3	18,1	9,5	13,1	17,6	38,1	16,2	21,0	20,0	20,0
Stated burning sensation in urinal tract as sign of STI in men	54/420	12,9	9,6	6,0	9,5	18,8	20,2	14,3	20,0	11,4	5,7
Stated foul smelling genital discharge as sign of STI in men	51/420	12,1	3,6	15,5	9,5	14,1	17,9	15,2	14,3	11,4	7,6
Stated itching in genital area as sign of STI in men	24/420	5,7	4,8	6,0	7,1	7,1	3,6	7,6	8,6	4,8	1,9

Sexual practices and STI experience

Two in ten (19.8%) of all interviewees reporting having sex with a non-regular sexual partner in the last 12 months, although there exists variation among the samples. More men (36.9%), as well as those living in the CS+SN (27.9%) and CS (27.6%) partner group areas report having sex with non-regular sexual partners. About one-quarter (26.5%) of those that reported having sex with a non-regular sexual partner also reported using a condom. Only six interviewees of the entire sample report experiencing a problem with STI in the last 12 months.

Table 4.4.3. Sexual practices and STI experience

Sexual practices and STI experience Percentage of respondents that	N Yes/ Total N	Yes	Sample Group					Partner Group			
			0-6	12-24	12-59	F 15-49	M 15-49	CS+S N	CS	T- II+SN	VS+ SN
Had sex with non-regular sexual partner in last 12 mo.	83/420	19,8	16,9	13,1	15,5	16,5	36,9	27,6	27,6	15,2	8,6
Used condom with non-regular sexual partner	22/83	26,5	7,1	27,3	7,7	28,6	41,9	17,2	24,1	43,8	33,3
Had STI problem in last 12 months	6/420	1,4	1,2	3,6	0,0	1,2	1,2	1,0	2,9	1,0	1,0

Dissemination of information on HIV and STI (Table 4.5 and 4.6)

More interviewees have ever received information on HIV (78.8%) than other STIs (36.7%). Also, more have received information in the last three months (38.8%, HIV; 14.5%, STI). Interviewees receive information on both HIV and STI most often from community agents. Interviewees in the CS+SN partner group report receiving information from community agents (67.0%, HIV; 53.3%, STI) more often than the other samples.

Table 4.4.4. Dissemination of information on HIV and STI

Sexual practices and STI experience Percentage of respondents that	N Yes/ Total N		Sample Group					Partner Group			
	Yes		0-6	12-24	12-59	F 15-49	M 15-49	CS+S N	CS	T-II+SN	VS+SN
Ever received information on HIV	331/420	78,8	78,3	73,8	75,0	80,0	86,9	83,8	73,3	74,3	83,8
Received information within the last 3 m	163/420	38,8	37,3	23,8	39,3	32,9	60,7	34,3	36,2	37,1	47,6
Received information from community agents	140/331	42,3	43,1	46,8	46,0	39,7	37,0	67,0	37,7	26,9	35,2
Received information from health agents	53/331	16,0	23,1	17,7	19,0	14,7	6,8	8,0	16,9	17,9	21,6
Ever received information on STIs other than HIV	154/420	36,7	31,3	33,3	34,5	37,6	46,4	42,9	45,7	32,4	25,7
Received information within the last 3 m	61/420	14,5	10,8	10,7	15,5	12,9	22,6	17,1	11,4	14,3	15,2
Received information from community agents	57/154	37,0	34,6	35,7	44,8	31,3	38,5	53,3	29,2	26,5	37,0
Received information from health agents	27/154	17,5	19,2	25,0	13,8	25,0	7,7	13,3	16,7	23,5	18,5

Access to condoms and treatment for STI (Table 4.7)

Slightly more than half of interviewees (54.8%) are familiar with the local brand of condom, Protector Plus. A larger percentage of men (69.0%) and those living in the CS+SN partner group area (67.6%) report knowing Protector Plus. Almost all of the interviewees that are familiar with Protector Plus (n=230) know its purpose (98.7%) and consider it affordable (90.4%). Three-quarters of those interviewees (75.2%) also know where to obtain Protector plus; and of those that know where to obtain it (n=173), most (95.4%) believe that it is currently available. Much fewer interviewees are familiar with Cura 7 (5.5%) or GeniCure (1.7%), two local treatments for STI.

Table 4.4.5. Knowledge of and access to STI products

Percentage of respondents that	N Yes/ Total N		Sample Group					Partner Group			
	Yes		0-6	12-24	12-59	F 15-49	M 15-49	CS+S N	CS	T-II+SN	VS+SN
Know Protector Plus	230/420	54,8	47,0	53,6	50,0	54,1	69,0	67,6	48,6	43,8	59,0
Know purpose of Protector Plus	227/230	98,7	97,4	100,0	97,6	97,8	100,0	100,0	100,0	100,0	95,2
Know where to get Protector Plus close by	173/230	75,2	87,2	66,7	71,4	76,1	75,9	84,5	60,8	63,0	85,5
Stated Protector Plus is affordable	208/230	90,4	92,3	93,3	95,2	87,0	86,2	94,4	80,4	93,5	91,9
Stated belief that Protector Plus is available now	165/173	95,4	94,1	96,7	93,3	97,1	95,5	98,3	93,5	93,1	94,3
Know Cura 7	23/420	5,5	2,4	4,8	6,0	2,4	11,9	5,7	7,6	2,9	5,7
Know purpose of Cura 7	18/23	78,3	100,0	75,0	80,0	50,0	80,0	83,3	75,0	66,7	83,3
Know where to get Cura 7 close by	23/23	100	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100
Stated Cura 7 is affordable	16/23	69,6	100,0	75,0	40,0	0,0	90,0	66,7	62,5	66,7	83,3
Stated belief that Cura 7 is available now	13/13	100	100,0	100,0	100,0	0,0	100,0	100,0	100,0	100,0	100
Know GeniCure	7/420	1,7	1,2	1,2	4,8	1,2	0,0	1,0	3,8	0,0	1,9

Summary and recommendations on STI and HIV

The main findings of the survey on the STI and HIV section are as follow:

- Although knowledge of HIV is widespread, awareness of the details of the disease seem rudimentary. HIV is associated mainly with sexual acts, and few seem aware of the possibility of infection through blood contact, or of the possibility of transmission from mother to child. Accordingly, perceived means of avoiding transmission are essentially related to sexual behavior—more specifically, to abstain from sex or to limit the number of partners. The use of condoms was seldom mentioned as a way to prevent getting infected.
- Respondents also appear less aware of sexually transmitted infections than of HIV. This is surprising, given the high prevalence of STI in Madagascar, and the low prevalence of HIV. This may in part be explained by the fact that rates of STI appear to be low in our sample, having affected only 1% of respondents overall. Accordingly, recognition of the signs of STI

was low, both among men and women and the main treatments for STIs—at least those supported by USAID partners, Cura7 and GeniCure—were known by very few respondents

- Sexual relations with non regular partners is relatively common, with one in five respondent mentioning having had sex with someone else than their regular partner in the last twelve months, men being about twice as likely as women to report this. The use of condoms among those who had sex with a non regular partner is not common, being practiced by only one of every four such respondent.
- This is not for lack of information: respondents—and particularly men—are familiar with condoms (including with the brand promoted by USAID’s partners), know where to get them, think they are affordable and usually available at the point of sale.

Based on those findings the following recommendations are made:

- Messages educating people about the dangers of HIV and how to avoid it must highlight the various forms of transmission of the disease. They must also insist on the importance of using when having sex with a non regular partner

4.5. Child Health and Nutrition

The population survey collected information on child health from three sub-samples (n=251): mothers of children 0-6 months; mothers of children 12-24 months; and mothers of children 12-59 months. Results concerning immunizations are only presented for mothers of children 12-24 months since their children should have completed the immunization schedule and their answers are not as affected by recall bias as mothers of older children.

Vitamin A and Iron Rich Foods (Table 5.1)

Mothers were asked to list foods that are good sources of Vitamin A for children. The majority of mothers in the T-II+SN (81.0%), VS+SN (77.8%), and CS+SN (59.7%) could name at least one good source of Vitamin A for a child. However, in the CS group, less than half (38.1%) named at least one good source of Vitamin A. The two sources most commonly cited in all the groups were orange fruits (38.6%) and orange vegetables (33.5%).

Mothers were then asked to list all of the foods that they gave to their child in the 24 hours previous to the survey. About half of mothers gave at least one Vitamin A rich food to their child, but this percentage, as which Vitamin A rich food was given, greatly varies across partner groups. Three-quarters (76.2%) in the T-II+SN group gave Vitamin A rich foods, while in the CS+SN and VS+SN slightly more than half of mothers gave Vitamin A rich foods (57.1% and 52.4% respectively) and in the CS group, only two in ten mothers (19.0%) reported doing so. In the T-II+SN sample, the two most frequently cited sources of Vitamin A in a child’s diet are leafy greens (47.6%) and seafood (33.3%). Leafy greens is also the most common source (33.3%) in the VS+SN group, but foods with red palm oil or palm nut was also cited by some (14.3%). Mothers in the CS+SN group gave seafood (23.8%), meat (28.6%), and orange vegetables (23.8%). Diets of children in the CS group are the poorest in Vitamin A and the source most frequently given is orange vegetables (9.5%).

The percentage of mothers that gave at least one iron rich food to their child, as well as which iron rich food was given, also greatly varies across USAID partner group. Similar to Vitamin A, the two groups with the highest percentages of mothers giving iron rich foods to their children are T-II+SN (42.9%) and CS+SN (38.1%). The greatest sources of iron in these two groups are seafood in T-II+SN (33.3%) and meat in CS+SN (28.6%). The groups with the lowest percentages of mothers giving iron rich foods are VS+SN with slightly less than ten percent (9.5%) and CS with slightly less than five percent (4.8%). The greatest source of iron in both the VS+SN and CS groups is legumes. Therefore, not only is the percentage of children receiving iron rich foods lower in the VS+SN and CS groups, the quality of the source of iron is also poorer.

Table 4.5.1. Vitamin A and Iron rich Food

Percentage of respondents that	N Yes/ Total N	Yes	Sample Group			Partner Group			
			0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
Knowledge									
Stated orange fruits are a good source of Vitamin A for a child	97/251	38,6	36,1	35,7	44,0	32,3	20,6	55,6	46,0
Stated orange vegetables are a good source of Vit. A for a child	84/251	33,5	31,3	34,5	34,5	30,6	19,0	38,1	46,0
Stated eggs are a good source of Vitamin A for a child	34/251	13,5	10,8	16,7	13,1	21,0	7,9	12,7	12,7
Stated organ meats are a good source of Vitamin A for a child	32/251	12,7	13,3	14,3	10,7	17,7	11,1	11,1	11,1
Stated at least one good source of Vitamin A for a child	161/251	64,1	65,1	61,9	65,5	59,7	38,1	81,0	77,8
Practice									
Gave leafy greens to child within last 24 h	18/84	21,4		21,4		0,0	4,8	47,6	33,3
Gave seafood to child within last 24 h	15/84	17,9		17,9		23,8	4,8	33,3	9,5
Gave any meat to child within last 24 h	10/84	11,9		11,9		28,6	4,8	9,5	4,8
Gave orange vegetable to child within last 24 h	10/84	11,9		11,9		23,8	9,5	9,5	4,8
Gave egg to child within last 24 h	4/84	4,8		4,8		14,3	4,8	0,0	0,0
Gave food with red palm oil or palm nut to child within last 24 h	4/84	4,8		4,8		0,0	0,0	4,8	14,3
Gave orange fruit to child within last 24 h	1/84	1,2		1,2		0,0	4,8	0,0	0,0
Gave organ meats to child within last 24 h	0/84	0,0		0,0		0,0	0,0	0,0	0,0
Gave porridge or gruel to child within last 24 h	58/84	69,0		69,0		42,9	33,3	100,0	100
Gave tubers to child within last 24 h	25/84	29,8		29,8		57,1	57,1	4,8	4,8
Gave other fruit or vegetable to child within last 24 h	17/84	20,2		20,2		14,3	19,0	28,6	19,0
Gave legumes to child within last 24 h	13/84	15,5		15,5		9,5	9,5	14,3	28,6
Gave at least one Vitamin A rich food to child in last 24 h	43/84	51,2		51,2		57,1	19,0	76,2	52,4
Gave at least one iron rich food to child in last 24 h	20/84	23,8		23,8		38,1	4,8	42,9	9,5

Breastfeeding

Approximately nine of every ten women reports ever breastfeeding (89.2%); slightly more women report ever breastfeeding in the T-II+SN group (96.8%) and slightly less in the CS+SN group (82.3%). Less than one-quarter (21.9%) of women began breastfeeding within eight hours of their child's birth; again this figure is slightly more in the T-II+SN group (33.3%) and slightly less in the CS+SN group (17.5%). All except for one of the mothers of children in the 0-6 months age group are still breastfeeding. The majority of mothers (86.7%) with children in this age group are exclusively breastfeeding. As expected, the number of mothers still breastfeeding decreases as age increases: less than three-quarters (70.2%) of mothers in the 12-24 month sample and less than one-quarter (21.4%) of mothers in the 12-59 month sample are still breastfeeding.

Table 4.5.2. Breastfeeding

Percentage of respondents that			Sample Group			Partner Group			
	N Yes/ Total N	Yes	0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
Ever breastfed the child	224/251	89,2	98,8	90,5	78,6	82,3	84,1	96,8	93,7
Breastfed the child within eight hours of birth	55/251	21,9	22,9	21,4	21,4	14,5	17,5	33,3	22,2
Are currently breastfeeding the child	159/251	63,3	98,8	70,2	21,4	54,8	66,7	68,3	63,5
Are currently exclusively breastfeeding the child	72/83	86,7	86,7			85,0	90,5	85,7	85,7

Immunizations and Vitamin A (Table 5.3)

A pattern exists among USAID partner groups in relation to immunizations. For all of the indicators related to immunizations, the percentages are in the following order, lowest to highest: CS+SN; CS; T-II+SN; and VS+SN. For example, the percentages of children that have received the BCG vaccination are: 81.0%, CS+SN; 85.7%, CS; 95.2%, T-II+SN; and 100.0%, VS+SN. The spread among the partner groups is greatest for the percentages of children that have received the measles vaccinations (38.1% difference) and all EPI vaccines including BCG, measles, 3 doses of DPT, and 3 doses of polio (52.4% difference). Accordingly, when rates of children that received all EPI vaccines is compared with the Madagascar 2003-2004 Demographic and Health Survey (53.0%), the rate in two of the USAID partner groups is significantly higher (90.5%, VS+SN; and 81.0%, T-II+SN), similar in one group (52.4%, CS), and much lower in the fourth group (38.2%, CS+SN).

The same pattern does not exist for the indicator concerning the percentage of children that received a dose of Vitamin A within the last six months, although the CS+SN group sample still lags behind the other partner groups: 61.5%, CS+SN; 68.8%, CS; 100.0%, T-II+SN; and 83.3%, VS+SN.

Table 4.5.3. Immunization and Vitamin A Supplementation

Percentage of respondents that			Sample Group			Partner Group			
	N Yes/ Total N	Yes	0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
Have an immunization card	48/84	57,1		57,1		42,9	47,6	66,7	71,4
Received the BCG vaccination	76/84	90,5		90,5		81,0	85,7	95,2	100
Received at least 3 polio vaccinations	69/84	82,1		82,1		71,4	76,2	85,7	95,2
Received at least 3 DPT vaccinations	64/84	76,2		76,2		47,6	71,4	90,5	95,2
Received the measles vaccination	65/84	77,4		77,4		57,1	66,7	90,5	95,2
Received all EPI vaccines (BCG, measles, 3 doses of DPT & polio)	55/84	65,5		65,5		38,1	52,4	81,0	90,5
Received a dose of Vitamin A in the last 6 m	55/84	73,8		73,8		61,5	68,8	100,0	83,3

Dissemination of information on child nutrition (Table 5.4)

Six in ten interviewees reported ever having received information on child nutrition (59.4%), with fewer of them (31.9%) having received such information within the last three months. The sources of information most frequently cited by interviewees was community agents (50.3%) and health agents (34.2%). These results are similar among USAID partner groups, although, significantly more interviewees reported receiving information on child nutrition from community agents in the CS+SN groups (78.0%).

Table 4.5.4. Dissemination of information on child nutrition

Percentage of respondents that			Sample Group			Partner Group			
	N Yes/ Total N	Yes	0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
Ever received information on child nutrition	149/251	59,4	54,2	58,3	65,5	66,1	60,3	49,2	61,9
Received information within the last 3 m	80/251	31,9	30,1	26,2	39,3	40,3	25,4	27,0	34,9
Received information from community agents	75/149	50,3	57,8	38,8	54,5	78,0	55,3	32,3	30,8
Received information from health agents	41/149	34,2	40,0	42,9	21,8	26,8	42,1	32,3	35,9

Summary and recommendations

The main findings of the survey on child health and nutrition section are as follow:

- There is a relatively good knowledge of main sources of vitamin A among our respondents, where two of every three women could list at least one source of this micronutrient. This means, not only that women are aware of the need for Vitamin A, but that they know which food will provide this key nutrient.
- About half of all mothers gave one food rich in vitamin A to their child, while one in four gave one food rich in iron. But those proportions vary importantly across partner areas, with mothers in CS areas faring much lower than elsewhere. Also, the quality of the source of iron varies substantially, with some areas offering animal source food that provides iron that is readily bio available, and other areas providing iron mainly through legumes, where iron is less bio available.
- Breastfeeding is common in all areas: almost all mothers said they breastfed their child at some point and among children under 24 months, seventy percent of mothers still breastfeed their child. Specific practices are not always optimal, however: for instance, only one in five mothers gave breastmilk to their child within eight hours of birth.
- Yet, exclusive breastfeeding appears widespread, with 87% of mother having adopted this practice.
- Vaccination rates (DPT3) are at eighty two percent, and the proportion of children that are fully immunized is more than sixty five percent. Those are excellent rates overall, compared to national averages which stand at around fifty three percent. Likewise the proportion of children in the USAID targeted areas that received Vitamin A supplement in the last six months showed relatively high rates, around seventy four percent.
- Those good figures tend to mask the important differences that exist between partner groups in this regard, however. Least performing are the Child Survival, and the Child Survival with SanteNet areas.
- The latter finding is counter intuitive, since the Child Survival areas are shown to be the ones where mothers most frequently cite having received information on the nutrition and health of their child, usually from community agents.

Based on those findings, the following recommendations are made:

- The good level of knowledge about Vitamin A and Iron rich food does not translate into adequate diets for children. SanteNet and its partners must help mothers translate their

dietary knowledge into concrete practices. Recipe trials, for instance, could be done to see how locally available foods could be combined to yield better diets for the children.

- Whereas the practice of breastfeeding is nearly universal, and patterns of exclusive breastfeeding are very high, it appears that specific practices, such as early breastfeeding, are not optimal. Those should be reiterated by SanteNet and its partners.
- Rates of vaccination and vitamin A supplementation are higher than average, but this masks the fact that some areas lag behind not only the SanteNet partner performance, but also national level performance. This requires urgent attention and needs to be corrected. Perhaps the community agents need to be better prepared, or more aware, of the importance of those particular behaviors.

4.6. Antenatal and post natal care

The population survey collected information on child health from three sub-samples (n=251): mothers of children 0-6 months; mothers of children 12-24 months; and mothers of children 12-59 months.

General Questions Concerning Antenatal Care

Mothers were asked to list all of the ways that a women can protect her own health and the health of her baby during pregnancy, childbirth, and immediately postpartum. Across USAID partner group samples, two in ten mothers (19.5%) could name at least three good practices. Variation exists among the partner groups for this indicator. Significantly more mothers in the CS+SN group (30.6%) and significantly fewer mothers in the T-II+SN group (4.8%) could name at least three good practices. The practice most commonly cited by all mothers regardless of partner group was that mothers should attend prenatal consultations (57.8%). The next most frequent answers were: protect against malaria (43.4%); receive tetanus vaccinations (39.4%); and regularly take iron and folate supplements (14.7%). Note that only a very small percentage of mothers (3.2%) in the T-II+SN group mentioned the practice of regularly taking iron and folate supplements.

Table 4.6.1. General Antenatal Care

Percentage of respondents that			Sample Group			Partner Group			
	N Yes/ Total N	Yes	0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
Stated at least 3 ways women can protect her and baby health	49/251	19,5	21,7	14,3	22,6	30,6	23,8	4,8	19,0
Stated mothers should go to prenatal consultations	145/251	57,8	59,0	59,5	54,8	51,6	58,7	65,1	55,6
Stated mothers should protect herself from malaria	109/251	43,4	47,0	33,3	50,0	50,0	33,3	42,9	47,6
Stated mothers should get TT vaccination	99/251	39,4	39,8	40,5	38,1	51,6	60,3	25,4	20,6
Stated mothers should regularly take iron/folate	37/251	14,7	12,0	11,9	20,2	21,0	12,7	3,2	22,2
Stated mothers should take Vitamin A within 8 w of delivery	1/251	0,4	0,0	0,0	1,6	0,0	0,0	0,0	0,4
Stated mothers should have trained health staff at delivery	1/251	0,4	0,0	1,2	0,0	0,0	0,0	0,0	1,6
Stated mothers should initiate breastfeeding immediately	0/251	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Stated mothers should have at least 3 prenatal consultations	194/251	77,3	80,7	71,4	79,8	88,7	87,3	73,0	60,3

Prenatal Consultations

A majority of women interviewed (77.3%) know that the recommended minimum number of prenatal consultations is at least once per trimester, or three times during the pregnancy.

Accordingly, three-quarters of women (75.3%) stated that they had at least three prenatal consultations with a health professional during their last pregnancy. This percentage is slightly lower (80.0%) than that reported in the Madagascar 2003-2004 Demographic and Health Survey (DHS). Of the 215 women in the Layers survey that had at least one consultation, most (68.8%) saw a midwife or trained birth attendant. Much fewer women visited a nurse (17.2%) or doctor (15.3%)—although this varies by group, as more women in the CS group went to a nurse for prenatal consultation (28.6%) and more women in the CS+SN group went to a doctor (32.7%)

Table 4.6.2. Prenatal consultations

Percentage of respondents that	N Yes/ Total N	Yes	Sample Group			Partner Group			
			0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
<i>Knowledge</i>									
Stated mothers should have at least 3 prenatal consultations	194/251	77,3	80,7	71,4	79,8	88,7	87,3	73,0	60,3
Stated mothers should go to prenatal consultations	145/251	57,8	59,0	59,5	54,8	51,6	58,7	65,1	55,6
<i>Practices (during last pregnancy)</i>									
Had at least 3 prenatal consultations with health professional	189/251	75,3	69,9	72,6	83,3	74,2	73,0	69,8	84,1
Had at least 1 prenatal consultations	215/251	85,7	85,5	83,3	88,1	79,0	88,9	79,4	95,2
Saw a sage femme (matron) for prenatal consultation	148/215	68,8	64,8	70,0	71,6	59,2	57,1	82,0	76,7
Saw a nurse for prenatal consultation	37/215	17,2	19,7	17,1	14,9	8,2	28,6	14,0	16,7
Saw a doctor for prenatal consultation	33/215	15,3	18,3	12,9	14,9	32,7	16,1	6,0	8,3

Iron and Folate Supplementation

When asked about how often to take iron and folate supplements during pregnancy, four in ten mothers (41.4%) know that pregnant women should take it one time per day. Fewer mothers (20.3%) said that pregnant women should take it during the entire pregnancy. Slightly more than two-thirds of mothers (67.7%) know where to obtain iron and folate tablets.

Half of all mothers surveyed (51.8%) reported taking iron and folate supplements during their last pregnancy. Notably, significantly more mothers in the VS+SN group (73.0%) reported taking iron and folate supplements during their last pregnancy. Of the mothers that took the supplement, eight in ten (81.5%) said they took it everyday but only four in ten (38.5%) said they took it for their entire pregnancy. More women in the Layers survey report receiving iron and folate supplementation than the 2003-2004 DHS as only one-third of the DHS sample (32.0%) had reported receiving iron and folate supplementation during their last pregnancy.

Table 4.6.3 Iron and Folate Supplementation

Percentage of respondents that	N Yes/ Total N	Yes	Sample Group			Partner Group			
			0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
<i>Knowledge</i>									
Stated mothers should regularly take iron/folate	37/251	14,7	12,0	11,9	20,2	21,0	12,7	3,2	22,2
Stated women should take iron/folate 1x/d during pregnancy	104/251	41,4	48,2	35,7	40,5	35,5	22,2	42,9	65,1
Stated women should take iron/folate during entire pregnancy	51/251	20,3	21,7	14,3	25,0	22,6	11,1	22,2	25,4
<i>Access</i>									
Knows where pregnant woman may obtain iron/folate tablets	170/251	67,7	73,5	61,9	67,9	64,5	41,3	73,0	92,1
Stated where to obtain iron/folate tablets	168/170	98,8	98,4	98,1	100,0	97,5	96,2	100,0	100
<i>Practices (during last pregnancy)</i>									
Took iron/folate	130/251	51,8	54,2	40,5	60,7	48,4	41,3	44,4	73,0
Took iron/folate 1x/d	106/130	81,5	88,9	82,4	74,5	80,0	76,9	82,1	84,8
Took iron/folate during entire pregnancy	50/130	38,5	33,3	41,2	41,2	36,7	30,8	50,0	37,0

Vitamin A Supplementation

Seven in ten mothers (68.9%) across USAID partner groups know where a pregnant women may obtain Vitamin A supplementation. Significantly more mothers in the VS+SN group (91.1%) and significantly fewer mothers in the CS group (44.4%) know where to obtain Vitamin supplementation. However, a smaller percentage of mothers (35.1%) report actually receiving a dose of Vitamin A postpartum. Again, significantly more mothers in the VS+SN group (44.4%) and significantly less mothers in the CS group (20.6%) received Vitamin A supplementation postpartum. The percentage of mothers in the Layers survey sample receiving Vitamin A postpartum (excepting the CS group) is greater than the DHS 2003-2004 rate (19.0%)..

Table 4.6.4 Vitamin A Supplementation

Percentage of respondents that			Sample Group			Partner Group			
	N Yes/ Total N	Yes	0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
Knowledge									
Stated mothers should take Vitamin A within 8 w of delivery	1/251	0,4	0,0	0,0	1,6	0,0	0,0	0,0	0,4
Access									
Knows where pregnant woman may obtain Vitamin A tablets	173/251	68,9	73,5	61,9	71,4	62,9	44,4	76,2	92,1
Stated where to obtain Vitamin A tablets	170/173	98,3	98,4	100,0	96,7	100,0	96,4	95,8	100
Practices (during last pregnancy)									
Received dose of Vitamin A postpartum	88/251	35,1	36,1	33,3	35,7	29,0	20,6	46,0	44,4
Received dose of Vitamin A <8 wk postpartum	82/88	93,2	96,7	89,3	93,3	94,4	92,3	89,7	96,4

Malaria prevention during pregnancy

Overall, half of mothers (53.4%) responding to the survey reported taking Chloroquin, SP, or TPI during their last pregnancy. However, significantly more women in the VS+SN group (76.2%) reported taking one of these three treatments than in the other three groups. The 2003-2004 DHS reports a similar percentage (58.0%) of pregnant women receiving antimalarial medication during pregnancy as compared to the total sample of mothers included in the Layers survey.

Four in ten mothers (40.6%) reported sleeping under an insecticide treated bed net (ITN) during their last pregnancy. Again, variation exists among USAID partner groups. Approximately double the percentage of women in the CS+SN group (64.5%) slept under an ITN than those in the other three groups. The 2003-2004 DHS reports one-third of pregnant women (35.0%) nationwide reported having slept under an ITN the night before the survey. Therefore, three of the USAID partner group samples have similar percentages to those reported by the 2003-2004 DHS but the CS+SN group far exceeds the 2003-2004 DHS statistic.

Table 4.6.5 Malaria prevention during pregnancy

Percentage of respondents that			Sample Group			Partner Group			
	N Yes/ Total N	Yes	0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
Knowledge									
Stated mothers should protect herself from malaria	109/251	43,4	47,0	33,3	50,0	50,0	33,3	42,9	47,6
Practices (during last pregnancy)									
Took Chloroquin, SP, or TPI	134/251	53,4	55,4	47,6	57,1	46,8	42,9	47,6	76,2
Took 3 Chloroquin per week or took TPI twice during pregnancy	86/134	73,5	71,1	61,8	84,4	77,8	100,0	68,2	60,0
Slept under ITN	102/251	40,6	51,8	35,7	34,5	64,5	36,5	30,2	31,7

Tetanus

Across USAID partner groups, slightly less than six in ten mothers (57.4%) reported receiving at least two tetanus vaccination injections during their last pregnancy. More mothers in the CS+SN group (69.4%) and fewer mothers in the VS+SN group (44.4%) received two injections. The 2003-2004 DHS reports four in ten pregnant women (40%) nationwide receive at least two tetanus vaccination injections.

Table 4.6.6 Tetanus Toxoid Vaccination

Percentage of respondents that	N Yes/ Total N	Yes	Sample Group			Partner Group			
			0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
<i>Knowledge</i>									
Stated mothers should get TT vaccination	99/251	39,4	39,8	40,5	38,1	51,6	60,3	25,4	20,6
<i>Practices (during last pregnancy)</i>									
Received at least 2 TT injections	144/251	57,4	54,2	53,6	64,3	69,4	61,9	54,0	44,4

Delivery

Approximately four in ten mothers (43.8%) in the total sample delivered their last child in a CSB or CHD health facility, although this varies by partner group, more mothers in the VS+SN group (60.3%) having delivered in a health facility, and less in the CS group (28.6%). Except in the CS group, these percentages compare favorably to the 2003-2004 DHS, in which one-third (32.0%) of mothers delivered in a health facility.

Overall, one in ten mothers (10.0%) delivered at home with the assistance of a health professional. Therefore, across USAID partner groups, slightly more than half of mothers (53.8%) had the assistance of a health professional (either in a facility or at home) during her last childbirth. A similar percentage of women (51.0%) responding to the 2003-2004 DHS reported having the assistance of a health professional when delivering her last child.

Table 4.6.7 Assistance at delivery

Percentage of respondents that	N Yes/ Total N	Yes	Sample Group			Partner Group			
			0-6	12-24	12-59	CS+S N	CS	T- II+SN	VS+ SN
<i>Knowledge</i>									
Stated mothers should have trained health staff at delivery	1/251	0,4	0,0	1,2	0,0	0,0	0,0	0,0	1,6
<i>Practices (during last pregnancy)</i>									
Delivered child in the CSB or CHD	110/251	43,8	41,0	41,7	48,8	43,5	28,6	42,9	60,3
Delivered at home with doctor, nurse, or trained birth attendant	25/251	10,0	13,3	9,5	7,1	12,9	14,3	7,9	4,8
Delivered with assistance of health professional	135/251	53,8	54,2	51,2	56,0	56,5	42,9	50,8	65,1

Summary and recommendations

The main findings of the survey on the pre and post natal care section are as follow:

- Mothers awareness of antenatal care measures is often confined to attending prenatal consultations. Most interviewees were aware of the need to do three or more such visits

during their pregnancy, starting with the first trimester. Only a minority of respondents, however, mentioned the need to protect the mother against malaria, and to get vaccinated against tetanus, whereas very few mentioned the need to take iron folate—although when prompted, respondents knew that they should take iron folate daily during their pregnancy.

- The percent of women who slept under a bednet during their pregnancy was shown to be slightly higher in the SanteNet areas than in the DHS, yet it is still only a minority that do so (40%). Use of malaria prophylaxis stands at about the same rate as in the DHS, i.e close to 60%.
- In practice, three out of every four women did three prenatal consultations, most usually with a matron (trained birth attendant). Although figures are low on this issue, they are better in the USAID target areas than in the country as a whole, as reported by the DHS. About half took iron folate, which compares well again with the rates reported in the country as a whole by the DHS (sixty percent in the former, versus forty percent in the latter). However, few women took iron during their entire pregnancy, defeating to some extent the improvement made over the national situation.
- Overall, about half of all deliveries took place with a trained medical staff attending—usually a trained birth attendant.
- Women are generally aware of the need to take Vitamin A supplements post partum, but few (one in three) actually do it. We note, however, that this rate is, here again, better than the one reported by the DHS.

Based on those findings, the following recommendations are made:

- The key building blocks of a proper antenatal care program seem to be in place, and women seem to be aware of the various components of safe pregnancy and delivery, but much remains to be done for those services to provide mothers and their babies with the full protection they need during pregnancy and at delivery. For instance, iron folate is taken, but not systematically. The same can be said of malaria prophylaxis. It is critical to reinforce the dissemination of proper messages to mothers in this regard, and to ensure the full course of protective measures—taking iron folate, getting the TT vaccinations, taking malaria prophylaxis—is actually taken.
- Also, a large number of births still take place without properly trained assistance.
- The efforts to ensure women receive vitamin A after the delivery should be reinforced as well.

Chapter 5. Results from the facility-based survey

This section uses the information collected during the survey of facilities to determine the extent to which the CSBs offering USAID-supported services have the infrastructure, resources and supportive management required to ensure quality in the delivery of those services. Services covered include Family Planning, Sexually Transmitted Infections/HIV, Integrated Management of Childhood Illnesses, and Ante/Postnatal Care.

The facility based survey sample includes twenty seven CSBs, each of the four partner contributing seven CSBs to this inquiry¹². Because of the low sample size, no comparisons are made between partner groups. The only analysis refers to whether or not the CSBs as a whole “pass” the 50% benchmark test. If the sample is found to attain that benchmark, then the program is granted a “Satisfactory” rating. If less than this benchmark, then the program is given a “Fail” rating. In cases where the program has very high compliance rate (i.e. meeting a benchmark of 80% or more) it is rated “Outstanding”. As said earlier, however, this rating is “soft”: the test is primarily run against the 50% benchmark. Testing at both the 50% and 80% level implies the compounded error rates typical of multiple testing; thus our “soft” label of the Outstanding mark.

5.1. Family Planning

The main factors contributing to the appropriate, efficient and continuous use of contraceptive methods (Murphy and Steele, 2000) include the following:

- availability of a variety of contraceptive methods to address client preferences;
- counseling and screening of clients for appropriateness of methods;
- client education, including the use of visual aids to increase information retention;
- availability of infrastructure and resources necessary for providing quality family planning services;
- availability of other health services relevant to FP clients (e.g. STI, or programs for special groups to improve access and use of FP services)

This section uses the information collected as part of the Layers Facility Survey to address the following questions:

- To what extent do the facilities offering USAID-supported FP services have the infrastructure, resources and supportive management required to ensure quality delivery of FP services, namely, services that effectively promote the appropriate, efficient and continuous use of contraceptive methods?
- How well do facilities comply with FP provisions of the Tiahrt amendment?

Display of information

CSB managers are instructed to display information in a visible location on the range of family planning methods offered at the site, on the schedule of services, and on patients’ rights in the provision of family planning services. The program reaches satisfactory standards in both the display of services offered and in their schedule; but fails to post information on patients’ rights. This issue, also covered under the Tiahrt amendment section below, should receive attention.

¹² One unit was lost due to mis-coordination in the field

Services provided

According to the Ministry of Health, the minimum packet of family planning services a CSB should offer includes (i) information and counseling on family planning methods; (ii) the prescription of family planning methods; (iii) the regular follow up of family planning users; and (iv) referral to health centers. From our survey data, the program reached a high level of compliance (80% or more) on the first three items of this list, and a “satisfactory” rating for the last item (referral), making for an overall rating of “satisfactory” for Services Provided.

Norms and procedures in the collection and use of data

CSBs are expected to follow a set of national norms and procedures on their Family Planning activities in terms of file management and on the collection and use of data on services provided. The file management system includes (i) filling the registry of external consultations, (ii) noting the patient data correctly in the filing system; and (iii) displaying graphically the quantity of services provided. On the first two aspects (filling the registry and noting the patient data) the program’s performance was outstanding, but it failed on visually presenting the level of activity on the various services provided.

The reporting of the information to central authorities, which includes the (i) filing of individual records and (ii) the adequate preparation of a monthly report, is done satisfactorily. However, the utilization of the data for local decision making fails to meet the expected benchmarks: the program is shown to fail on (i) graphically displaying family planning results; (ii) using the information collected to take local action; and (iii) on noting the decisions taken. Another area where CSBs had a low rating is in eliciting clients’ satisfaction with regards to services provided. Although a satisfactory number of CSBs periodically ask the patients’ opinion on the quality of services rendered, few of them use this information to improve the quality of their services. This is an area where increased support is required, so the program complies with expected norms.

Staff resources

More than 50% of CSBs had qualified human resources for the provision of family planning services. Although rated as “satisfactory” using our scheme, we feel this indicator should reach at least the Outstanding rating (if not 100 percent), since qualified staff is absolutely essential to the provision of adequate services in this critical area.

As it was not possible to directly observe a consultation, enumerators asked service providers to list from memory the key steps to follow during the first family planning consultation with a client. More than 80% of the staff correctly listed (i) identifying the clients needs; (ii) explaining the choice of methods; (iii) verifying that the client is not pregnant; and (iv) discussing the method favored by the client, as the key steps to cover in this first consultation. However, a very small number listed “discussing HIV”, the fifth aspect recommended by the Ministry of Health in its training of FP service providers.

Supplies and equipment

The presence of equipments and supplies in CSBs shows a mixed picture. A satisfactory number of CSBs had anatomic models for male condoms; and a high number (greater than 80%) had the van of methods showing family planning methods; but fewer than 50% had an updated copy of family planning guidance, standards and protocols.

With regards to anticontraceptive drugs, Depo Provera (an injectable contraceptive used as a marker to measure the adequacy of supply in contraceptive drugs) was found in more than 50% of CSBs, as well as the needles and syringes necessary for the injection; condoms were found in less than 50% of sites. Other usual supplies required in the provision of family planning services (topical antiseptic, examination gloves, etc) were found in a satisfactory number of sites.

Tiaht amendment

The Tiaht amendment, passed by 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 family planning can be incorporated into projects receiving U.S. funding. The amendment also requires that individual choice be respected when introducing and providing family planning services. Questions were introduced in this survey to ensure the basic premises of the Tiaht amendment are observed in the USAID funded Family Programs¹³.

To ensure that FP clients have freedom of choice in selecting their preferred family planning method, the survey verified whether the CSB visibly displayed information on all methods available and on patients rights in relation to FP, had the various methods available at hand, and had the van of methods on display for clients perusal. As already mentioned above, information was adequately displayed on the methods available, but an insufficient number of sites were found to display patients' rights. With respect to the availability of services and supplies, the subsections above clarified that key services and supplies were indeed present in satisfactory number across CSBs, except for condoms which were stocked in less than half the CSBs visited.

To ensure that no quotas or incentives are applied, questions were made to verify whether CSB staff were under any pressure, or offered any incentives to promote family planning in general or a specific method in particular. Based on the staff's answers to those questions, the survey found no evidence that a system of quotas was applied, or that incentives were offered to promote either family planning in general, or a family planning method in particular.

To conclude on this aspect, the CSBs were found to comply in most regards with the provisions of the Tiaht amendment. Two elements appear to require further efforts, in order to ensure full compliance with the terms of this amendment, those being: to visibly display patient's rights on their use of family planning services; and to ensure that condoms be in supply, so that clients can truly exert their freedom of choice in selecting their preferred family planning method.

¹³ No specific questions were made about coercive abortion or involuntary sterilization, as CSBs are part of the Ministry of Health which does not support such actions.

Summary and recommendations on CSB Survey results for Family Planning

The survey showed satisfactory performance on a number of aspects, including the variety of Family Planning services provided, the quality of FP staff resources, and the presence of essential FP supplies and equipment. At the same time, the data points to a number of areas where improvements are required so the CSBs reach satisfactory levels of compliance with the Ministry’s norms and standards in the provision of FP services, and with some of the provisions of the Tiaht amendment. To reach a satisfactory performance on all counts, the program should

- Post information on patients’ rights
- Present graphically the level of activity on the various services provided
- Use the information collected locally to take action, and note those actions
- Do refresher training of staff so they incorporate HIV as part of the discussions with the clients at their first FP consultation
- Ensure adequate supplies of condoms at CSBs

This list indicates the various levels at which action has to be taken: some actions need to take place at the commodity management system level (e.g. supply of condoms, provision of specific posters and visual aids); other actions require improvement in the training of staff (e.g. discuss HIV during first consultations); and others actions must be taken locally by staff themselves—for instance, they have to be better motivated or better trained in using the information they collect for local decision making. By directing the attention to those aspects, program managers will improve the capacity of CSBs to reach satisfactory performance on prescribed norms and standards.

Table 5.1. Results from the Family Planning section of the CSB survey¹⁴

Indicator	N Pass	Rating
DISPLAY OF INFORMATION		
Display IEC information on family planning methods offered	12	satisfactory
Display information on patients rights in the provision of family planning services	8	fail
Display IEC information on schedule of family planning services	15	satisfactory
SERVICES PROVIDED		
Offer a complete minimum activity packet for the provision of FP services	13	satisfactory
(sub indicator) information and counseling on family planning methods ¹⁵	20	outstanding
(sub indicator) prescription of family planning methods	26	outstanding
(sub indicator) regular follow up of family planning users	24	outstanding
(sub indicator) provides referral to health center	15	satisfactory

¹⁴ Legend: Following LQAS’s calculation of benchmarks and using the cumulative probabilities of binomial distributions, 11 of the 28 sites have to satisfy the criteria under consideration in order to give a “pass” to the program on that criteria; on any criteria where less than eleven sites are found to comply the program gets a “fail” rating. To attain the “Outstanding” rating the program must show that 19 of the 28 sites pass the criteria. To help quick visualization, the Rating column uses colors to highlight the performance of the program with regards to each criteria: red is used to indicate a “Fail”; yellow, to indicate “Satisfactory” and no color to indicate “Outstanding”.

¹⁵ It often happens that one criteria is in reality disaggregated into a series of sub-criteria, each of which has to be examined in order to ensure compliance of the more generic criteria. Because of this, the generic criteria cannot reach a higher rating than any of its component sub criteria (the chain is no stronger than its weakest link). The presentation of the data in this way permits, not only to see which generic criteria pass the test or not, but also which of the sub criteria needs improvement in order to ensure a “Satisfactory” or “Outstanding” rating at the generic level.

NORMS AND PROCEDURES IN THE COLLECTION AND USE OF INFORMATION		
Have an adequate family planning file management system, including:	9	Fail
(sub indicator) registry of external consultations	24	outstanding
(sub indicator) patient data noted	20	outstanding
(sub indicator) Clinical graphs filled and displayed	9	fail
Collect information on the provision of FP services using national norms, including:	13	Satisfactory
(sub indicator) individual record correctly filled	16	Satisfactory
(sub indicator) monthly report form correctly filled	23	Outstanding
Analyze the FP information collected for local decision making, including:	1	Fail
(sub indicator) display graphically two or more family planning results	6	fail
(sub indicator) take decisions based on those results	1	fail
(sub indicator) note those decisions	1	fail
Periodically evaluate family planning clients satisfaction, including:	4	Fail
(sub indicator) elicit patients opinions	11	satisfactory
(sub indicator) use results to improve its services	4	fail
STAFF RESOURCES		
Have qualified human resources for the provision of family planning services?	18	Satisfactory
Staff lists correctly steps to do at the first family planning consultation, including:	17	Satisfactory
(sub indicator) identify clients needs	27	Outstanding
(sub indicator) explain choice of methods	25	Outstanding
(sub indicator) verify client is not pregnant	20	Outstanding
(sub indicator) discuss method favored by client	24	Outstanding
Staff states not having been offered rewards for promoting a particular FP method or product	26	outstanding
Staff states not having been offered rewards for promoting FP in general	27	outstanding
SUPPLIES AND EQUIPMENT		
Have all the required equipment for family planning education:	11	satisfactory
(sub indicator) anatomic models for male preservative	11	satisfactory
(sub indicator) van of methods showing family planning methods	19	Outstanding
Have an updated copy of family planning guidance, standards and protocols?	10	Fail
Have the necessary supplies for the provision of FP services, including:	14	Satisfactory
(sub indicator) antiseptic for muqueuses	16	Satisfactory
(sub indicator) topical antiseptic	16	Satisfactory
(sub indicator) cotton balls or compresse	18	Satisfactory
(sub indicator) examination gloves	14	Satisfactory
Have the necessary family planning stocks, including:	5	Fail
(sub indicator) Depo Provera	16	Satisfactory
(sub indicator) condoms	9	Fail
(sub indicator) needles and syringes for injection	15	Satisfactory

5.2. IMCI

This section uses the information collected as part of the Layers Facility Survey to examine the extent to which the facilities have the infrastructure, resources and supportive management required to ensure the provision of the quality of key IMCI services and to effectively use local information in improving those services. Expected services 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 CSBs are expected to follow the Ministry of Health's norms and procedures. Performance in those various aspects is reviewed below.

Education of mothers in the management of childhood illness

All CSBs should offer the minimum packet of education sessions to mothers on the management of childhood illness including (i) home treatment of infections; (ii) identification of danger signs and action needed; (iii) knowledge of risks prevention and treatment of malaria; (iv) preventions and treatment of diarrhea; (v) vaccination; and (vi) nutrition. The program failed on all sub-indicators, making for a serious fail on that criteria at the generic level, not a single CSB offering all education messages as specified in the minimum packet. Ten CSBs stated having had sessions on nutrition, six on vaccination and malaria; and four on diarrhea. No CSBs had sessions on home treatment of infections or identification of danger signs.

Norms and procedures

CSBs are expected to follow a set of national norms and procedures, both in the delivery of IMCI services, and in terms of file management and on the collection and use of data on services provided. Data shows that only eight of the set of CSBs follow the national norms and procedures in the delivery of the IMCI services, resulting in a Fail rating at the program level on this criteria. The reporting of information to central authorities, which includes (i) correctly entering the IMCI registry and (ii) adequately preparing the monthly report, were completed satisfactorily by CSBs but the utilization of the data for local decision making failed to meet the expected benchmarks: the program did not meet the benchmark on any of the three sub elements of this criteria, namely (i) graphically displaying family planning results; (ii) using the information collected to take local action; and (iii) on noting the decisions taken.

Human and material resources

Each CSB should have at least one qualified staff trained in the provision of IMCI services. Also, essential drugs and supply should be present in sufficient quantities, and necessary equipment should be present onsite. Finally, the CSB should have an operational cold chain in place. Performance in each of those aspects is examined below.

Fifteen CSBs were shown to have qualified human resources for the provision of IMCI services. The program thus earns a "satisfactory" rating in this regard.

With regards to supplies, equipment and medication, fifteen CSBs were found to have an updated version of the IMCI standards, norms and protocols and therefore received a “satisfactory” rating for this indicator. Also, although CSBs generally had most of the supplies necessary for the provision of IMCI services, several key pieces of equipment were not found on site, including a child weighing scale, a watch, ORS packets with utensils, and a naso-gastric probe. With respect to drugs and medications, few of the key medicines were stocked in adequate quantities, as only five of the 18 medications were present in a satisfactory number of CSBs.

With regards to the cold chain, sixteen CSBs have a complete and functional system. This includes a refrigerator that (i) is dedicated to vaccines; (ii) is equipped with a thermometer; (iii) has a temperature care displayed; and (iv) has an updated temperature card. The program thus reaches a “satisfactory” rating on this criterion. However, there is still an important number of CSBs that do not maintain the integrity of the system, putting vaccines at risk of getting spoilt.

Summary and Recommendations on IMCI from Facility Based Survey

Although the program met satisfactorily with a number of requirements associated with the provision of IMCI services (e.g. presence of trained staff, existence of a functional cold chain, and presence of key pieces of equipment) the survey showed low performance in many aspects, notably in terms of following Ministry’s policies, norms and protocols on IMCI; and in terms of providing the minimum education packet to mothers on the management of childhood illness. Also, important deficiencies were noted in relation to the availability of key drugs and medicines, and essential pieces of equipment. To reach a satisfactory performance, therefore, the program should:

- Ensure the provision of the minimum packet of education to mothers on management of childhood illness
- Ensure that the Ministry’s IMCI policies, norms and protocols are appropriately used and followed
- Ensure that the CSBs maintain adequate supplies of those supplies and medication that were found to be lacking at the time of the survey, as listed in Table 5.2.

SERVICES PROVIDED		
Offer education sessions to mothers on the management of childhood illness, including:	0	fail
(sub indicator) home treatment of infections	0	fail
(sub indicator) identification of danger signs and action needed	0	fail
(sub indicator) knowledge of risks prevention and treatment of malaria	6	fail
(sub indicator) prevention and treatment of diarrhea	4	fail
(sub indicator) vaccination	6	fail
(sub indicator) nutrition	10	fail
Use the policies, norms and protocols for IMCI	8	fail

NORMS AND PROCEDURES IN THE COLLECTION AND USE OF INFORMATION		
Collect IMCI information following national norms, including:	16	satisfactory
(sub indicator) information correctly entered in IMCI registry	16	satisfactory
(sub indicator) information correctly entered in monthly report	17	satisfactory
Analyze the IMCI information collected for local decision making, including:	2	fail
(sub indicator) display graphically two or more prenatal care results	5	fail
(sub indicator) take decisions based on those results	2	fail
(sub indicator) note those decisions	2	fail
(sub indicator) drinking water	13	satisfactory
Have the adequate drugs to provide IMCI services, including:	0	fail

SUPPLIES AND EQUIPMENT		
Have an updated version of the IMCI standards, norms and protocols available	15	satisfactory
Have enough child health cards	2	fail
Have a complete and functional cold chain, including:	16	satisfactory
(sub indicator) refrigerator dedicated to vaccines	19	satisfactory
(sub indicator) refrigerator equipped with thermometer	17	satisfactory
(sub indicator) refrigerator with temperature card displayed	19	satisfactory
(sub indicator) refrigerator avec with updated temperature card	18	satisfactory
Have adequate equipment to provide IMCI services, including:	0	fail
(sub indicator) drinking cup	17	satisfactory
(sub indicator) basin for hand washing	14	satisfactory
(sub indicator) soap	18	satisfactory
(sub indicator) infant weighing scale	20	outstanding
(sub indicator) child weighing scale	7	fail
(sub indicator) spoon	16	satisfactory
(sub indicator) cotton or soft tissues	14	satisfactory
(sub indicator) watch	7	fail
(sub indicator) thermometer	18	satisfactory
(sub indicator) stethoscope	21	outstanding
(sub indicator) potence a serum	13	satisfactory
(sub indicator) perfusion	15	satisfactory
(sub indicator) various containers	13	satisfactory
(sub indicator) ORS packets with utensils	5	fail
(sub indicator) naso gastric probe	1	fail
(sub indicator) drinking water	13	satisfactory
Have the adequate drugs to provide IMCI services, including:	0	fail
(sub indicator) cotrimoxazo	13	satisfactory
(sub indicator) amoxicycline	12	satisfactory
(sub indicator) paracetamol	14	satisfactory
(sub indicator) chloroquine	12	satisfactory
(sub indicator) acide nalidixique	3	fail
(sub indicator) sachets SRO	5	fail
(sub indicator) mebendazo	16	satisfactory
(sub indicator) vitamin A	8	fail
(sub indicator) chloramphenicol	3	fail
(sub indicator) gentamycine	0	fail
(sub indicator) benzil penicilline	9	fail
(sub indicator) quinine	3	fail
(sub indicator) erythromycine	5	fail
(sub indicator) SP comprimés 525mg	10	fail
(sub indicator) pommade ophtalmique	8	fail
(sub indicator) tetracycline	9	fail
(sub indicator) violet de gentiane	9	fail
(sub indicator) lactate ringer	5	fail

5.3. STI and HIV

This section uses the information collected by the Layers Facility Survey to examine the extent to which the facilities 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 those aspects the CSBs 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.

Display of information

CSB managers are instructed to display information in a visible location on the STI services offered and schedule of services. The program reaches satisfactory standards in the display of the schedule of services; but fails to post information on the kind of services offered with regards to STI and HIV.

Services provided

According to the Ministry of Health, the minimum packet of STI and HIV services a CSB should offer include (i) IEC messages to reduce the risk of STI and HIV and (ii) specific actions for vulnerable groups. From our survey data, 27 CSBs have specific actions for vulnerable groups, achieving an "outstanding" rating for this indicator. However, 11 CSBs did not offer IEC messages thus a rating of "satisfactory" on this sub-indicator, and the overall indicator of offering a complete minimum activity packet for STI and HIV prevention and control.

Norms and procedures in the collection and use of data

CSBs are expected to follow a set of national norms and procedures on their STI and HIV activities in terms of file management and on the collection and use of data on services provided. The file management system includes (i) filling the registry of external consultations and (ii) noting the patient data. The program's performance for both of these components was outstanding.

The reporting of the information to central authorities, which includes the (i) filing of individual records and (ii) the adequate preparation of a monthly report, is completed by most CSBs, thus again granting a rating of "Outstanding" to the program. However, the utilization of the data for local decision making fails to meet the expected benchmarks: the program is shown to fail on (i) graphically displaying family planning results; (ii) using the information collected to take local action; and (iii) on noting the decisions taken.

Human and material resources

Twenty-two CSBs have staff trained in the syndromic approach for the treatment of STI. However, the program does not have sufficient staff trained in HIV counseling and fails in this respect.

To verify the capacity of the trained staff in implementing the syndromic approach--and since it was not possible to directly observe a consultation—enumerators asked service providers to list from memory the key steps to follow during the first STI consultation with a client. More than 80% of the staff correctly listed the following steps: (i) carry on the standard interview; (ii) do the examination; (iii) decide on the treatment; and (iv) inform that sexual partner should be notified. The other two steps of the approach, namely (i) establish the risk profile; and (ii) choose the appropriate treatment algorithm, reached a rating of satisfactory, making for an overall rating of “Satisfactory” in terms of staff capacity to carry out the syndromic approach.

Twenty-five CSBs have algorithms for IEC support for treatment of STI and therefore received an “outstanding” rating for this indicator. However, the presence of equipments, supplies and medications in CSBs shows a mixed picture. A satisfactory number of CSBs have bleach, antiseptic for skin, cotton balls, and examination gloves, but, few CSBs have other essential supplies such as a sterilizer. Four of ten of the medications deemed essential for STI treatment were not found in sufficient supplies. Only 10 CSBs had sufficient quantities of condoms.

Summary and recommendations on CSB Survey results

The survey suggests that CSBs perform satisfactorily on several key aspects, including the variety of STI and HIV services provided, the knowledge of staff concerning key steps during STI consultation, and the presence of some STI supplies and equipment. At the same time, the surveys pointed to a number of specific areas where improvements are required so the CSBs reach satisfactory levels of compliance with the Ministry’s norms and standards in the provision of STI and HIV services. To reach a satisfactory performance on all counts, the program should

- Post information on the schedule of STI services
- Use the information collected locally to take action, and note those actions
- Train staff in HIV counseling
- Ensure adequate supplies of missing supplies and medication, as well as condoms

DISPLAY OF INFORMATION		
Display information on STI services offered	7	fail
Display information on schedule of STI services	12	satisfactory
SERVICES PROVIDED		
Offer a complete minimum activity packet for STI and HIV prevention and control	16	satisfactory
(sub indicator) IEC messages to reduce risk of STI and HIV	16	satisfactory
(sub indicator) specific actions for vulnerable groups	27	outstanding
NORMS AND PROCEDURES IN THE COLLECTION AND USE OF INFORMATION		
Have an adequate STI file management system, including:	27	outstanding
(sub indicator) registry of external consultations	27	outstanding
(sub indicator) patient data noted	27	outstanding
Collect STI information following national norms, including:	21	outstanding
(sub indicator) information correctly entered in registry	21	outstanding
(sub indicator) information correctly entered in monthly report	26	outstanding
Analyze the STI information collected for local decision making, including:	0	fail
(sub indicator) display graphically two or more STI results	2	fail
(sub indicator) take decisions based on those results	0	fail
(sub indicator) note those decisions	0	fail
STAFF RESOURCES		
Have qualified human resources for the provision of STI and HIV services, including:	5	fail
(sub indicator) staff trained in HIV AIDS counseling	8	fail
(sub indicator) staff trained in syndromic approach for the treatment of STI	22	outstanding
Staff lists correctly at least 5 of the 6 steps to do at the STI consultation, including:	20	outstanding
(sub indicator) proceed with interview	27	outstanding
(sub indicator) establish risk profile	18	satisfactory
(sub indicator) do examination	24	outstanding
(sub indicator) choose appropriate algorithm	17	satisfactory
(sub indicator) decide treatment	24	outstanding
(sub indicator) inform that sexual partner be notified	27	outstanding

SUPPLIES AND EQUIPMENT		
Have algorithms and IEC support for treatment of STI	25	outstanding
Have all the required equipment and supplies needed for STI treatment, including:	0	fail
(sub indicator) bleach	14	satisfactory
(sub indicator) antiseptic for skin	17	satisfactory
(sub indicator) cotton balls	19	outstanding
(sub indicator) examination gloves	16	satisfactory
(sub indicator) sterile gloves	4	fail
(sub indicator) cleaning gloves	3	fail
(sub indicator) plastic bag	0	fail
(sub indicator) cards for clinical files	1	fail
(sub indicator) prescription sheets	14	satisfactory
(sub indicator) registration cards	2	fail
(sub indicator) sterilizer	7	fail
Have sufficient quantities of drugs and medical supplies for STI treatment, including	0	fail
(sub indicator) ciprofloxacin	7	fail
(sub indicator) amoxicillin	13	satisfactory
(sub indicator) doxycycline	9	fail
(sub indicator) erythromycin	5	fail
(sub indicator) metronidazole	15	satisfactory
(sub indicator) cotrimoxazole	17	satisfactory
(sub indicator) benzathine penicillin	11	satisfactory
(sub indicator) tetracycline	12	satisfactory
(sub indicator) nystatin	5	fail
(sub indicator) cura7	15	satisfactory
(sub indicator) condoms	10	fail

5.4. Focused prenatal care

This section uses the information collected by the Layers Facility Survey to examine the extent to which the facilities have the infrastructure, resources and supportive management required to ensure the provision and quality of key antenatal, delivery and post partum services. Services to be provided include (i) prenatal care; (ii) TPI; (iii) obstetric emergencies; and (iv) orientation and response. Furthermore, CSB staff is expected to provide education to pregnant women in safe pregnancy and delivery. In all those aspects the CSBs 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.

Services provided

From our survey data, CSBs are rated “outstanding” in the provision of prenatal care and TPI and “satisfactory” in the provision of obstetric emergencies and orientation and response. However, only 8 CSBs use standard methods in the provision of all those services. Therefore the program fails, at the general level, to achieve a “satisfactory” rating for the indicator of “Using standard methods in the provision of focused prenatal care services”.

The CSBs also failed to provide health education to pregnant women during pregnancy. None of the IEC areas reached the “Satisfactory” rating for educating mothers on, specifically (i) delivery preparation plan and preparation for complications; (ii) identification of danger signs and recommended actions; (iii) knowledge of risks prevention and treatment of malaria; (iv) VCT in HIV PMTCT; (v) STI; (vi) breastfeeding; (vii) family planning; (viii) focused prenatal care and vaccination schedules; and (ix) importance of examinations during pregnancy.

Norms and procedures in the collection and use of data

CSBs are expected to follow a set of national norms and procedures on their focused prenatal care activities in terms of file management and on the collection and use of data on services provided. The file management system includes (i) file folders numerically in scheduler; (ii) use a single form to report on maternal and perinatal clinical condition; (iii) notes relevant care information; and (iv) correctly fill clinical graph. On the first three aspects the program's performance was either satisfactory or outstanding, but failed on correctly filling the clinical graphs, thus making the program as a whole fail to attain a “Satisfactory” rating on instituting a file management system that complies with the Ministry's norms and procedures.

The reporting of the information to central authorities, which includes the (i) filing of individual records; (ii) the completion of the monthly report; and (iii) the adequate preparation of a monthly report is done satisfactorily. However, the utilization of the data for local decision making fails to meet the expected benchmarks: the program is shown to fail on (i) graphically displaying family planning results; (ii) using the information collected to take local action; and (iii) on noting the decisions taken. CSBs reports on daily prenatal consultations and consolidated monthly vaccination report are outstanding. However, only 11 CSBs were shown to provide weekly epidemiologic surveillance reports.

Human and physical resources

As part of their staff, 11 CSBs have a physician, 17 CSBs have a nurse, and 6 CSMs have a matron with a state diploma. Therefore in terms of having at least one of these trained professionals, the program was rated as “satisfactory.”

Adequate space for filing patients’ folders is required for proper file management. The program is rated as “satisfactory” in this indicator as the majority of spaces dedicated for filing have (i) enough cabinets or shelves; (ii) allowance for movement; and (iii) a place to sit.

Administrative supplies (maternal health surveillance cards, newborn surveillance cards) were present in the majority of CSBs, earning a rating of “Satisfactory” with regards to this set of criteria. However, none of the CSBs were shown to have in stock all the supplies and first line drugs needed to provide adequate, focused prenatal care services. Several drugs were present in a satisfactory number of CSBs—many items even earned a rating of “Outstanding”—but a number of drugs were absent in most sites, making the program fail on the overall indicator of drug availability.

Summary and recommendations on CSB Survey results

The survey showed a satisfactory performance in several aspects of focused prenatal care. However, specific areas were found where improvements are required so the CSBs reach satisfactory levels of compliance with all of the Ministry’s norms and standards in the provision of those services. To reach a satisfactory performance on all counts, the program should

- Provide education on Safe Motherhood to pregnant women
- Use the information collected locally to understand trends, take action, and note of those actions
- Ensure adequate supplies of all first line supplies and medication

SERVICES PROVIDED		
Use standard methods in provision of focused prenatal care, included	8	fail
(sub indicator) prenatal care	25	outstanding
(sub indicator) TPI	24	outstanding
(sub indicator) obstetric emergencies	17	satisfactory
(sub indicator) orientation and response	14	satisfactory
Provide education to pregnant women on health during pregnancy, including:	0	fail
(sub indicator) delivery preparation plan and preparation for complications	6	fail
(sub indicator) identification of danger signs and recommended actions	2	fail
(sub indicator) knowledge of risks prevention and treatment of malaria	7	fail
(sub indicator) VCT in HIV PMTCT	5	fail
(sub indicator) STI	4	fail
(sub indicator) breastfeeding	6	fail
(sub indicator) family planning	3	fail
(sub indicator) focused prenatal care and vaccination schedules	8	fail
(sub indicator) importance of examinations during pregnancy	3	fail
NORMS AND PROCEDURES IN THE COLLECTION AND USE OF INFORMATION		
Have an adequate prenatal care file management system, including:	2	fail
(sub indicator) file folders numerically in scheduler	13	satisfactory
(sub indicator) single form for maternal and perinatal clinical	20	outstanding
(sub indicator) notes relevant care information	15	satisfactory
(sub indicator) correctly filled clinical graph	3	fail
Collect prenatal care information following national norms, including:	15	satisfactory
(sub indicator) individual record correctly filled	15	satisfactory
(sub indicator) information correctly entered in registry	26	outstanding
(sub indicator) information correctly entered in monthly report	27	outstanding
Analyze the prenatal care information collected for local decision making, including:	2	fail
(sub indicator) display graphically two or more prenatal care results	9	fail
(sub indicator) take decisions based on those results	4	fail
(sub indicator) note those decisions	2	fail
Report focused prenatal care following national norms, including:	11	satisfactory
(sub indicator) notes daily prenatal consultations	25	outstanding
(sub indicator) provides consolidated monthly vaccination report	26	outstanding
(sub indicator) provides weekly epidemiologic surveillance report	11	satisfactory
STAFF RESOURCES		
Have qualified human resources for the provision of focused prenatal care services, including:		
(sub indicator) physician	11	satisfactory
(sub indicator) nurse	17	satisfactory
(sub indicator) matron with state diploma	6	fail

Report focused prenatal care following national norms, including:	11	satisfactory
(sub indicator) notes daily prenatal consultations	25	outstanding
(sub indicator) provides consolidated monthly vaccination report	26	outstanding
(sub indicator) provides weekly epidemiologic surveillance report	11	satisfactory
STAFF RESOURCES		
Have qualified human resources for the provision of focused prenatal care services, including:	3	fail
(sub indicator) physician	11	satisfactory
(sub indicator) nurse	17	satisfactory
(sub indicator) matron with state diploma	6	fail
SUPPLIES AND EQUIPMENT		
Have adequate space for filing focused prenatal care patients folders, including:	17	satisfactory
(sub indicator) enough cabinets or shelves	17	satisfactory
(sub indicator) can allow movement	22	outstanding
(sub indicator) has place to sit	23	outstanding
Have sufficient administrative supplies to manage focused prenatal care services, including:		
(sub indicator) maternal health surveillance card	14	satisfactory
(sub indicator) newborn surveillance card	17	satisfactory
(sub indicator) mothers health card	19	satisfactory
Have the essential drugs to provide focused prenatal care, including:	0	fail
(sub indicator) paracetamol	24	outstanding
(sub indicator) SP comprimés	20	outstanding
(sub indicator) mebendazole or albendazole	20	outstanding
(sub indicator) FAF comprimés	24	outstanding
(sub indicator) folic acid	8	fail
(sub indicator) benzathine penicillin	20	outstanding
(sub indicator) erythromycin	9	fail
(sub indicator) sulfate de magnesium	2	fail
(sub indicator) sulfate de calcium	13	satisfactory
(sub indicator) solution physiologique or solution de Hartmann	4	fail
(sub indicator) solution isotonique glucosee	6	fail
(sub indicator) perfuseur epicraniennes	21	outstanding
(sub indicator) eau dSTI illece	16	satisfactory

Annexes

The following Annexes are contained on the accompanying CD ROM:

Annex 1: List of sites visited

Annex 2: List of indicators collected

Annex 3: Population survey questionnaire

Annex 4: CSB survey questionnaire

Annex 5: Field Manual

Annex 6: SPSS syntax for data transformation

Annex 7: Scope of Work and Terms of Reference for Local Firm Contract

Annex 8: Olives, Casey 2006.

Annex 9: Pocket PC Creations Population Survey Application software

Annex 10: Pocket PC Creations CSB Survey Application software

Annex 11: Full Population survey dataset

Annex 12: Full CSB survey dataset