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EVALUATION
Community Healthcare SANTÉNET2 Project
Final Evaluation

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SANTÉNET2 PROJECT FINAL EVALUATION:

COMMUNITY HEALTHCARE SANTÉNET2 PROJECT FINAL EVALUATION

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CONTENTS

ACRONYMS

AC/CHV	Health Community Agent
ARI	Acute Respiratory Infection
CCD/CCDS	Commune Committee of Health Development
CHD	Centre Hospitalier de District
ANC	Antenatal Consultation
BCC	Behavior Change Communication
CRS	Catholic Relief Services
CSB	Basic Health Center
FDG	Focus Group Discussion
FP/RH	Family Planning / Reproductive Health
FY	Fiscal Year
GOM	Government Of Madagascar
HPN	Health Population and Nutrition
IMCI	Integrated Management of Childhood Illnesses
KMs	Komina Mendrika Salama
MID	Permanently Impregnated with Insecticide Mosquito Net
NGO	Non Governmental Organization
ONN	National Office for Nutrition
PCIME	Integrated Coverage of the Mother and the Child
PSI	Population Services Inc.
RDT	Rapid Diagnosis Test
RNM	Radio Nasionaly Malagasy
SOW	Statement of Work
SSI	Semi-Structured Interview
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene

EXECUTIVE SUMMARY

Evaluation Purpose

1. This evaluation comes at the chronological end-of-project of the USAID/Madagascar community-based health care project (SANTÉNET2). The purpose of the evaluation is to measure the changes on the use of community health volunteer (CHV) services that resulted from SANTÉNET2 interventions; and to assess the effectiveness of the SANTÉNET2 capacity building on local community health committees (CCDS) capability in the rural areas of Madagascar. The findings, conclusions and recommendations of the evaluation establish the effectiveness of the community-based healthcare model implemented by the SANTÉNET2 project in remote rural areas of Madagascar.

Background

2. The USAID SANTÉNET2 Project ended in March 2013 and this evaluation mission was contracted in September 2013. The fieldwork data collection took place in December 2013 – January 2014. The main components of the implementation of SANTÉNET2 contributed to the achievement of USAID's Strategic Objective #5 (SO5): «Increase of the use of specific health services and products, and practices improvement». Pursuing its realizations in previous phases of USAID/Madagascar Health – Population – Nutrition (HPN) program, and in close collaboration with other USAID programs, the SANTÉNET2 project tries to level up the demand and improve the quality of community health service offers.

3. The project interventions main expected results are the following:
- Contribution to a measurable increase of indicators of health, population and Nutrition related to essential services, products and practices at the end of the five years;
- Improvement of the policies to support the Ministry of Health priorities in the domains covered by SO5
- Effective supplement to the Malagasy Government and the USAID partners' actions;
- Increase of the availability, quality and sustainability of health services at the Community level;
- Scaling up and institutionalization of the lessons learned and the best practices in key fields of community behavioral change communication (BCC) programs supported by USAID.

4. This evaluation poses and answers the following questions:

Question No 1: To what extent did the SANTÉNET2 interventions contribute to the utilization of CHV services by the rural population in the project's intervention zones?

Question No 2: To what extent did the CCDS fulfill their roles and responsibilities in managing community health system, including support to CHVs?

5. Young's Model (1981) has been adapted to assess the determinants of the use of CHV services. From this model, the decision to utilize a health service is a combination of 4 groups of factors: the illness acuteness, knowledge of treatment, faith in the treatment, and access to the treatment.

Use of CHV services

6. All the 114 CHVs met and interviewed during this mission are still functional. They are all still fulfilling the functions that have been assigned to them and are still treating the three chidlhood illnesses and counseling women of reproductive age (WRA) for family planning (FP).

7. About nine out of ten of the surveyed women declared having benefitted from CHVs' services in all SANTÉNET2 intervention zones. The least observed proportion was in Itasy region with 76.6% while the highest was registered in the Alaotra Mangoro region (98.8%). Women go see CHVs for mother and neonatal health questions, child health, FP services or other counseling and child growth advices.

8. CHVs had treated or referred 43.2% of sick children, however, with a quite high regional variability ranging from 14% in Vakinankaratra to 65% for Atsimo Andrefana. CHVs also provided 42.7% of FP products and 43.3% of the health products of the three child illnesses. A breakdown by type of services shows that 78% of the services provided by the CHV are about childhood illnesses against 22% for family planning.

9. From the beginning of the implementation of the community health through CHVs to the period of the survey in 2013, the use of the Government Basic Health Centers (CSB) services has been reduced by more than half for the three childhood illnesses: from 65.3% to 27.9% for Acute Respiratory Infection (ARI); from 68.3% to 32.9% for diarrhea; and from 68.3% to 31% for malaria.

10. Caretakers partially substitute the services from CSB by the services from CHVs when the later become available. A caretaker frequenting a CSB or another formal health facility before the implementation of the community-healthcare system has respectively 14% and 16% more chances to utilize CHV services in case of illness of their child compared to those who were using traditional medicine or stay doing nothing.

11. About 31.0% of sick children taken to the CHVs encountered health product stockouts as well as 46.2% of women seeking counsel and contraceptives for modern FP methods. Stockouts are higher in hard-to-reach zones where transportation means are limited (82% of households are victims of stockouts) and in villages farther from the main commune town (58% of households).

12. From the descriptive, unconditional analysis, there is a certain tendency to reduce the use of CHV services by the households as household revenues improve. For poorest households in the first quartile of income, the use of CHV services is 44.9% and 43.6% respectively for FP and the three childhood illnesses while these rates fall down to 39.6% and 34.4% respectively for households in the fourth quartile. Nevertheless, 74% of surveyed mothers declared financial issues as the main constraints to access health services in case of illness.

Determinants of use of CHV services

13. The consultant conducted regression analysis to assess the determinants of the use of CHV srvices for selected childhood illnesses and family planning.

14. **Caretakers who had received sensitization on the three childhood illnesses and on the roles of CHVs are 23 to 24% more likely to take their child to CHV for medical examination** than caretakers who had not heard or received BCC. Similarly for FP sensitization, **WRA knowing the roles of the CHVs in the matter of family planning are 22.2% more likely to use the services of the CHVs compared to women who are ignorant about the assignment of CHVs.**

15. **However, better experience of caretaker thus better familiarity with the disease results in lower probability of going to CHVs when their child is sick.** A good knowledge of the child illness by the caretaker will result in 7% lower probability of using the service of the CHVs.

16. **Caretakers behave differently by the type of childhood illnesses**. The proportion of those who take the sick child to the CHV is very similar for diarrhea and ARI. However, they are more encline to go to the CHV for Malaria (6% higher).

17. **Caretakers who appreciate the behavior of the CHV are 21% more likely to use the CHV services in case of childhood illness than those who had bad judgement on the social behavior of the CHVs.** A more respectful behavior of CHV thus encourages the use of the services by caretakers in case of illness of their children. **For the FP model, the result shows that women who appreciate positively the behavior of the CHV are 29.2% more likely to use their services, compared to women who assess incorrect social behavior of CHVs.**

18. **The existence of a possible relational problem between the mother and the CHV influences negatively the use of CHV services.** The model shows that a mother having a relational problem with the CHV has 40% less willingness to use the CHV services than a mother who is on good terms with the latter.

19. **The distance from the nearest CSB acts positively on the utilization of CHV services: the farther the CSB, the higher the proportion of users of CHV services.** Overall about 24.5%, 38.9% and 44.7% of the samples are seeking care from CHVs respectively for distances estimated at less than 30 minutes walk; from 30 minutes to 1 hour; and more than 1 hour to the nearest CSB. **An increase of one hour on the distance between the household's place of residence and the nearest CSB results in an increase of 6% of a caretaker having a sick child to use CHV services. The coefficient is pretty much the same for the FP model, with an increase of 6% on the use of CHV for each one hour farther distance to the CSB.**

20. **Stock-out results in lower use of CHV services for Intergrated Managemetn of Childhood Illnesses (IMCI) needs.** From the model estimation, caretakers who had been victim of product stockout at CHV is 7% less likely to use the CHV services again than those who had not been victim of such stockout. The effect is much important for FP. **WRAs having been victims of a FP product stockout at the CHVs are 40% less likely to use CHV services again compared to women who have never experienced stockout.**

21. **The level of instruction of the caretakers acts negatively on the decision of the latter to use the CHV services in case of illness of their children.** The model shows that caretakers having a secondary education level are 4% less likely to use the services of the CHV, compared to an uneducated mother, and the lower probability increases with the level of education; 12% less likely for caretakers with secondary education and above. On the contrary, the education level of WRA seems not to affect the likelihood of getting FP services from CHVs.

22. **The existence of any forms of social support results in higher probability to use CHV services varying from 7% to 11% based on the two model estimations.** Social support may take different forms, from financial support from relatives and neighbors to the existence of common activities among villagers.

23. **As the women's age grows, the probability to seek FP counsel and treatment from the CHV is reduced.** Older WRA are less likely to get FP services from CHVs but the magnitude is relatively low at 0.4% probability for 1 additional year.

24. **The coefficient estimates from the regional fixed-effect model are very close to the estimates from the restricted model. However, it depicts huge variabilities across regions**.

Community health governance

25. Very few beneficiaries know the roles and responsibilities of the CCDS. Less than 4% of surveyed households are aware of the CCDS existence. Among those households, only 22% declared having been informed about decisions taken by CCDS. A better CCDS implication in community BCC can improve the level of use of CHV services by the population and increase the confidence of the population vis-à-vis the community health system.

26. Periodical meetings of the CCDS would have improved the CHV services utilization but CCDS lack the means and resources to organize such meetings on a regular basis and to ensure continuation of BCC actions in support to CHVs.

27. Collaboration between CSB and CCDS is weak for two CCDS out of three. According to 37% of surveyed CHVs, the added value of the CSB Chief engagement is much appreciated in terms of the quality of the training received, which is better adapted to CHVs' needs.

28. CCDS governance does not follow anymore the standards taught by the project after the closeout. Less than half of the surveyed CCDS are conducting activities related to the health sector after the project's closeout.

29. Through community BCC, CCDS have brought the necessary institutional support to cover more households in fokontany with health and hygiene messages; however, CCDS ramifications in the fokontany were not capable of conducting community mobilization activities and CHV monitoring activities.

30. From CHVs and surveyed mother declarations, only few CCDS had promoted the construction of community huts for CHVs.

Recommendations

31. **Increase awareness of the population on the quality of care provided by CHVs.** BCC had demonstrated its effect on the use of CHV services. BCC could take several forms but there are other ways to further increase the outreach of the communication, for example the use of modern technologies such as phones and internet; the use of mobile video units that would attract youth and children; the use of sport, school as means of communication.

32. **Good perception of the behavior and attitude of CHVs is critical for the use of their services by the population**. Social behavior must be exemplaire hence training on relational and attitude toward the community could help in improving the use of CHV services.

33. **Continue improving the quality and skills of CHVs**: the sustainability of the community-health system has been illustrated by the high numbers of functioning CHVs, several months after the end of the support-project SANTENET2. This could be improved by periodical in-service training to keep the same spotless skills and respectful social behavior of CHVs toward the community and in the villages. The in-service training should be conducted by the CSB chief during the monthly meetings. The CCDS should be involved more in community awareness campaigns to better explain the CHV services to the population.

34. **Distance is a critical determinant of the use of CHV services.** However, even with the community-based health-care approach, population living in fokontany comprising of several remote villages yet have difficulties in accessing CHV services. **Improvement could be brought on the reduction of the distance households and CHVs.** There should be a joint review with the Ministry of Health on the number of CHVs allotted to each community so that the remote villages can have their own CHV at proximity.

35. **Ensure that CHVs have all the required health products i.e. avoid stock-out as possible.** The purpose of the community-based healthcare approach is to provide accessible health service to beneficiaries. One critical component is the availability of health productrs, so CHVs can treat the patient. In the absence of health products, care seekers are obliged to go to other places which may be farther. The approach requiring CHV to allocate money to buy health products may be an issue for low-income CHVs. System such as deferred payment terms would be more appropriate rather than cash payment.

36. From the unconditional analysis, the lack of finance was identified as one reason for the population to avoid CHV services. The consultant recommends health projects to **invest in more on reducing the barrier to access quality health.** This could include village savings and loans; mutual funds; micro-health insurance. For this later, the main issue is the small number of participants precluding from having a critical mass of members who will allow the organization raising enough funds for its operation.

37. There might be a need to jointly **redefine with the Commune the roles and responsibilities of the COSAN and CCDS** to avoid any overlap and to plead for more consideration and for more provision of means on behalf of the CCDS. There is a need to improve the awareness on the roles and responsibilities and promote the CCDS in the commune; and to provide more training to CCDS members so as to enable them to understand better their roles and responsibilities as regard to the management of the community health development plans.

38. **Continue the promotion and support of the community-health system.** This is indeed a policy adopted by the Ministry of Health and has the merit of reaching the under-served population living in remote, rural areas.

1. EVALUATION PURPOSE AND EVALUATION QUESTIONS

1.1. EVALUATION PURPOSE

39. This evaluation comes at the chronological end-of-project of the USAID/Madagascar community-based health care project (SANTÉNET2). The purpose of the evaluation is to measure the changes on the use of community health volunteer (CHV) services that resulted from SANTÉNET2 interventions; and to assess the effectiveness of the SANTÉNET2 capacity building on local community health committees (CCDS) capability in the rural areas of Madagascar. The findings, conclusions and recommendations of the evaluation will establish the effectiveness of the community-based healthcare model implemented by the SANTÉNET2 project in remote rural areas of Madagascar.

1.2. EVALUATION QUESTIONS

40. This evaluation poses and answers the following questions:

41. Question No 1: To what extent did the SANTÉNET2 interventions contribute to the utilization of CHV services by the rural population in the project's intervention zones? The Contractor had to propose and use a behavioral model of health service utilization to identify the key variables explaining the differences on the level of use of health services from CHVs in the areas of interventions of the SANTÉNET2 project. In addition to the effect of specific SANTÉNET2 interventions, confounding factors must be included in the analysis. SANTÉNET2 main interventions may have included increased awareness of the population on treatment and prevention of selected children diseases, and on family planning; increasing the knowledge and skills of CHVs; reducing stock-outs of selected health products at the village level; reducing financial barrier to access health services; and empowering CCDS. Confounding factors may include cultural variables; individual variables (age, sex, education, marital status); type and severity of illness; economic variables (cost of care, average wealth of the community, access to food); and geographical variables (distance and physical access, access to media); etc…

42. Question No 2: To what extent did the CCDS fulfill their roles and responsibilities in managing community health system, including support to CHVs? The champion commune approach promoted by SANTÉNET2 relies on the empowerment of local development committee. USAID wants to get an informed analysis on the aptitude of CCDS to fulfill their roles and responsibilities. The analysis encompasses the roles that CCDS plays from the policy in making decision on health related issues at the community level, the identification and the choice of CHVs, the monitoring of the community's need in term of health, through the supervision of CHVs.

43. For the analysis, the Contractor must examine the difference across gender in answering the evaluation questions. There might be different preferences in seeking healthcare from CHVs depending on the gender of caretakers of children or the head of households. From a cultural standpoint, it may be difficult for women of reproductive age seeking family planning counseling or treatment to visit male CHVs.

44. There are also gender-based hypothesis that may affect the capacity of the local health committees to do and achieve their objectives. The Contractor will look at factors such as the composition of the CCDS, the decision making methods. More women members may improve the capacity of the CCDS to deal with community health. Decision-making based on top-down approach from the elders, often men, may also affect the capacity of the CCDS to perform well.

45. This evaluation seeks to understand the gender-based characteristics that would affect the use of CHV services and the capability of the CCDS to support the community health system.

1.3. PROJECT BACKGROUND

46. The USAID SANTÉNET2 Project ended in March 2013 and this evaluation was contracted only in September 2013 while the fieldwork data collection took place in December 2013 – January 2014. The results of this evaluation are then already measuring what were left from the project's realizations in matter of CHV services utilization eight months after its closeout. As the main component of the USAID support to the Malagasy health sector, SANTÉNET2 contributes to the fulfillment of USAID's Strategic Objective #5 (SO5): «Increase of the use of specific health services and products, and practices improvement». Pursuing its realizations in previous phases of USAID/Madagascar Health – Population – Nutrition (HPN) assistance program, and in close collaboration with other USAID programs, the SANTÉNET2 project tries to level up demand and improve community health services offers.

47. SANTÉNET2 and its partners collaborated with communities to train CHVs. The community's involvement in the recruitment, supervision, and support to CHVs. These community actions contributed to the operationality and sustainability of community services. SANTÉNET2 trained and supported two CHVs per fokontany (initially one Mother Health CHV and one Child Health CHV), and help find replacements in case of dropouts.

- For Mother Health CHVs, the training occurs at two levels. At level 1; the CHVs receive an integrated training on FP (counseling on FP and contraceptive products), STI/HIV-AIDS prevention, safe motherhood, and postpartum FP. After three months of service, their performance is assessed. The CHVs who achieve the best results and meet certain criteria (attendance, regularity of reporting, supervision results) are trained on community-based Depo Provera and become Level 2 Mother Health CHVs.
- Child Health CHVs receive training on nutrition, growth promotion, Expanded Program on Immunization, and common disease prevention (malaria, diarrhea, ARI). After three months of service, their performance is assessed. The CHVs who have the best qualifications and meet certain criteria (attendance, regularity of reporting, supervision results) are trained on community-based integrated management of childhood illnesses (IMCI) and become Level 2 Child Health CHVs.

48. After completing the training, CHVs were classified as follows, according to their post-test results:

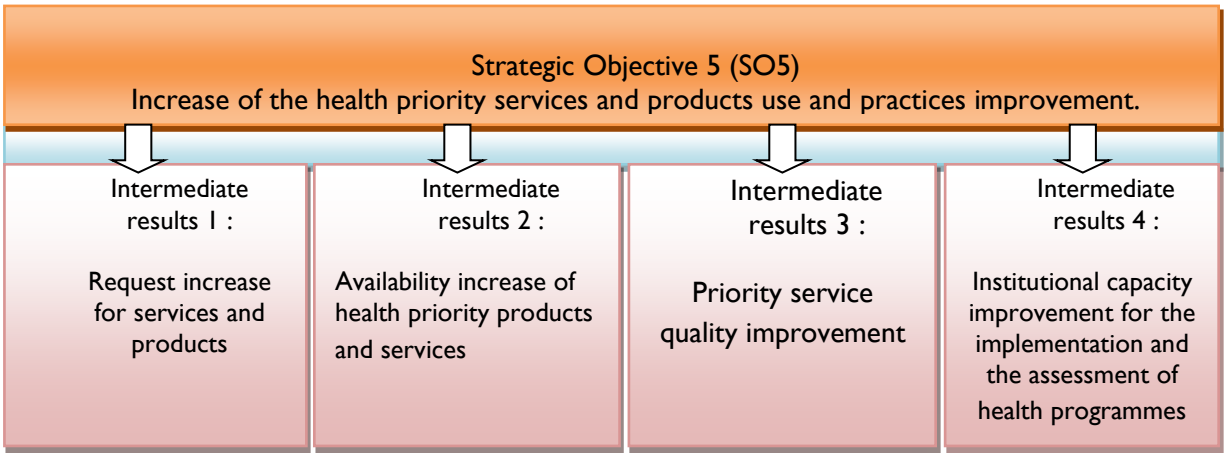
- Level A: score over 70%. CHVs at this level are capable of providing services.
- Level B: score ranging from 50% to < 70%. CHVs at this level may provide services but need regular monitoring from supervisors.
- Level C: score under 50%. CHVs at this level may conduct only awareness-raising activities. They need additional training to reach the next level.

49. The SANTENET2 final report shows that 85% of CHVs trained since the start of implementation activities in the KM salama communes have a good performance (level A), 13% an average performance (level B), and only 2% a poor performance (level C).

1.4. USAID STRATEGIC OBJECTIVE AND INTERMEDIATE RESULTS

50. The SANTÉNET2 Results Framework are linked to the SO5 USAID/Madagascar overall goal, which is "Increase of the health priority services and products use and practices improvement".

Figure 1 - USAID strategic framework



1.5. SANTÉNET2 PROJECT EXPECTED INDICATORS AND RESULTS

51. SANTENET2 interventions expected results are the following:

- Contribution to a measurable increase of indicators of health, population and Nutrition related to essential services, products and practices at the end of the five years;
- Improvement of the policies to support the Ministry of Health priorities in the domains covered by SO5
- Increase of the availability, quality and sustainability of health services at the Community level;
- Scaling up and institutionalization of the lessons learned and the best practices in key fields of community behavioral change communication (BCC) programs supported by USAID.

2. EVALUATION METHODS AND LIMITATIONS

2.1. SAMPLING

52. The field of study includes the 800 SANTÉNET2 project intervention communes from 16 regions of Madagascar. For the first stage sampling, the statistical unit is the Fokontany of intervention of CHVs (7,285). A Fokontany is an administrative source unit made of one village or a group of villages under an administrative authority.

53. The household is defined as a group of people generally united by family ties (but not necessarily) who live together under the same roof, work together, take the main meals together and recognize an only one person's authority called the Head of the household.

54. The objective is to build independent and representative samples at the region level. At the first degree, the sample size is set at 20 Fokontany per region and the draw is carried out in a simple random with equal probability method. To assure more geographical sample disparity, the systematic draw is adopted and the draw pace corresponds to the total number of Fokontany in the region by the sample size.

55. For the second stage sampling, the statistical unit is the household. The group of households in the selected Fokontany constitutes the survey population. The sampling of households is carried out systematically with the itinerary method. The draw pace is the result of the division of the total number of households in the Fokontany by sample size, which is 10 households per village.

56. A preliminary interview with a Fokontany responsible was conducted by the supervisor as soon as the team arrives in the Fokontany. This interview will give the necessary information to the data collection organization of quantitative survey or focus group. This icludes the total number of households in the Fokontany to be used in the calculation of the draw pace. The supervisor will use a random number table (provided in the supervisor's manual appendix) to identify the first sample – household in the Fokontany.

57. In addition, the questionnaire is structured for particular individual members of the household. There are different questionnaires for the household head, married women aged between 15 and 49, and caretakers of children from 0 to 59 months. Each women of reproducgtive age (15-49 years old) and each child under five years old were asked to be interviewed individually.

58. The qualitative works have directly been carried out by experts assisted either by the quantitative teams' supervisors or by other assistants specially recruited to accompany the experts in the works preparation. For the interviews of key inforamants and focus group discussions, the qualitative team visited at least one location in each of the 16 regions of intervention of SANTÉNET2.

2.2. THE BASIC MODEL FOR EVALUATION QUESTION N°1

59. The behavior about the health services use is complex and multigonal. It is difficult to define which determining factors influence more the decisions of health service use. Culture, economy, access, perception, knowledge, belief in effectiveness, agent and sex roles and the social roles are among the extensive list of factors that can at the same time influence the choice of a health service and the assessment of health service option to prevent and cure a disease.

60. The consultant used Young (1981) model, represented in Figure 2.

Figure 2 - Young's Choice Model

61. This model incorporates 4 components essential to the individual's choice in his decision to go for health services.

1) Perception of illness acuteness: This category includes at the same time the individual's perception and by the society consideration of the disease seriousness.
2) Knowledge of an auto-medication: If a person is aware of an efficient medication, s/'he will surely use this medication before going to a health system professional. The auto medication knowledge is a referential basis.
3) Faith in treatment: This component includes the individual and the community's trust in the treatment effectiveness for the concerned disease. It is logical that a mother will never use a treatment she does not trust to cure her child.
4) Access to treatment: Accessibility includes the assessment by the individual of the health services cost and these services availability. According to Young, the access may be the variable that influences the most a care service choice.

62. The consultant had used 3 types of data collection methods to collect required information needed for the analysis:

- Document review
- A structured survey targeting two precise categories of households' members: mothers of children from 0 to 59.9 months and women in union aged from 15 to 49. The survey has been carried out on 3,200 project beneficiary households, from 20 Fokontany per region in each of the 16 project intervention regions. An appropriate set of questionnaires for this survey has been developed.
- A qualitative research based on Focus Group discussions or FGD (CHV, male and female households) and semi-structured Interviews or SSI carried out on CHV, CCDS, CSB chiefs, local NGO partners (representatives of the project implementation), village authorities. Discussion and interview guides have also been elaborated for each of these approach targets.

63. The dependent variable to be explained in the model is "the use of CHV services". To answer the evaluation question, the consultant conducted two series of data analysis comprising of a descriptive analysis on the critical variables; and a regression on the determinants of ue of CHV services for the three childhood illnesses and the Family Planning.

2.3. THE QUALITATIVE RESEARCH FOR EVALUATION QUESTION N°2

64. Two approaches have been used for qualitative research.

- A semi-structured interview (SSI) targeting key persons involved in the Project: The CHV (with an anonymous questionnaire), the CCDS, the village authorities, the CSB chiefs and the local NGOs partner representatives of SANTÉNET2 implementation.
- A focus group discussion (FGD) with household members in groups of 10; men and women, and discussions with CHV groups.

65. Despite the fact that some questions about CCDS have been included into the quantitative survey targeting individual households, the main information and data necessary to answer the evaluation question No 2 have been obtained from the qualitative researches.

66. The good governance level of CCDS has been assessed by 114 CHVs according to the following criteria: good performance in the planning and management follow-up of the health system, the community sensitization/mobilization, the CHV supervision, the community funds management, the health mutual management for selected communes, the search for funding, the support for health products stock management, the support for data collection and sharing, the CCDS activities report production, the users' satisfaction assessment and the CCDS self-assessment.

67. All the tools used have first been tested in the field, and then updated and revised before implementation.

2.4. LIMITS AND CONSTRAINTS OF THE EVALUATION

68. The consultant team had encountered some difficulties during the field data collection stage, more particularly:

69. The necessity to change the initially sampled Fokontany due to inaccessibility either because of flooded rivers and broken bridges (17 cases); and because of insecurity (5 cases). In total, 30 Fokontany (9.3% of total sample) have been replaced during this survey. The works on field data and information collection for SANTÉNET2 evaluation have been carried out within the given timeframe according to the established timeline without any major problems.

70. The confusion between Fokontany and villages: the survey methodology considers the Fokontany as a primary unit. Yet, it turns out that some localities in the sample primary units list were hamlets (3 cases).

71. The difficult access to villages within the sampled Fokontany: in some Fokontany (17 cases) there are inaccessible villages (deep rivers, insecurity, epidemic plague). The field agents were instructed to make random sampling on the remaining accessible villages.

72. In some situations, the team was not able to conduct the survey. Such cases were observed when the team arrival at the village coincides with intensive agricultural works such as rice transplanting, and some events like death or exhumation. There were also some Fokontany where the bednet distribution campaign was carried out on the same day as the survey. The survey also took place during the election campaign which made the surveyors' tasks more difficult.

73. The insecurity problem and its impacts on the field survey works: The insecurity situations in the survey areas are one of the greatest obstacles the consultant teams have encountered in particular in the southern, south-eastern regions as well as in the western part of Vakinankaratra region.

74. These limitations and constraints could possibly have an influence on the results because of limited external validity; for example the results would not be valid for remote and non-accessible villages and hamlets. However, this risk is minimized by the relatively large size of the samples.

3. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

3.1. FINDINGS FOR EVALUATION QUESTION NO 1

"To what extent did the SANTÉNET2 interventions contribute to the utilization of CHV services by the rural population in the project's intervention zones?"

3.1.1. SERVICES OFFERED BY THE CHVS

75. Almost a year after the end of the SANTENET2 project, CHVs are still operational, offering their services to their respective communities (management of the three CU5 illnesses and FP service provision). So far, communities tend to consult CHVs more, even if it's just for a counselling or to be referred to the CSB.

76. The proportion of women having received CHV services reaches an average of 90.9% within the SANTÉNET2 intervention areas. The lowest proportion is assessed in Itasy region with 76.6% while the highest is in Alaotra Mangoro region (98.8%). Women contact CHVs for questions related to maternal and neonatal health, childhood health, family planning service or other services of growth advice or follow-up. According to the survey, 139 women out of 3490 have received CHV services during the week preceding the survey; that is 4% of eligible women.

77. The proportion of modern family planning services assured by CHV averages 42.6% with a fairly high regional variability of 0% for Androy and 8% for Vakinakaratra to 70% for Atsimo Andrefana. Note that the services considered in this case are related to counseling and family planning products supply including injection. This rate is 49.4% in the MIKOLO project intervention (Figure 3).

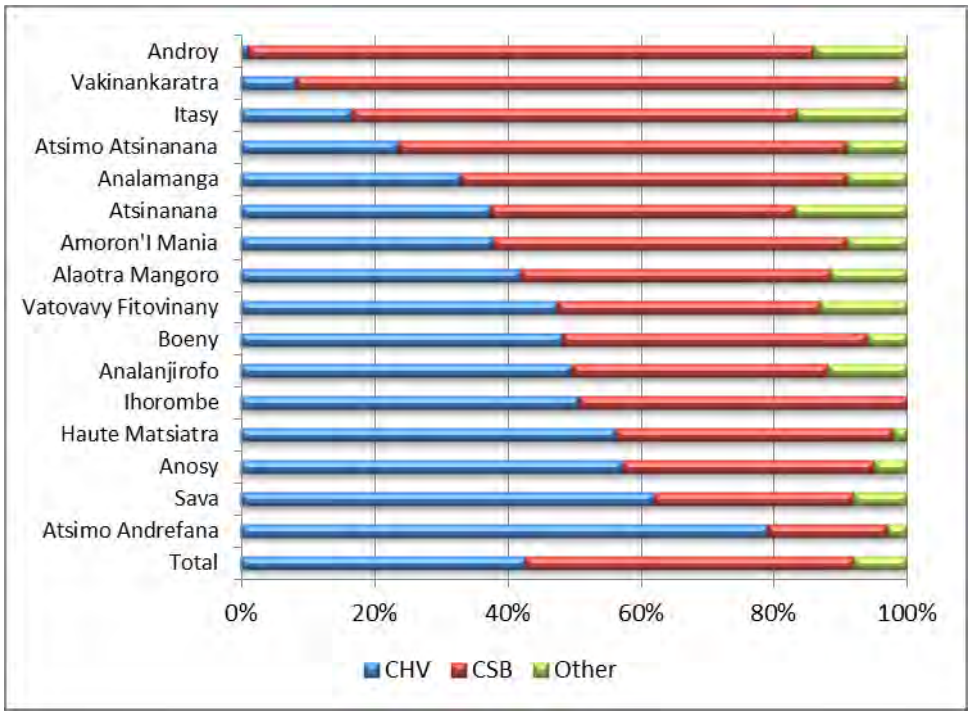


Figure 3 – Use of Family Planning services by type of service providers per region.

78. For the IMCI (three illnesses), CHV has treated 43.4% of the sick children against 27.5%

by the CSBs. This proportion amounts to 41.9% for diarrhea, 41.6% for pneumonia and 45.6% for Malaria. Within the MIKOLO project intervention area, the CHV IMCI rate amounts to 49%, 47.2% of which for diarrhea, 41.6% for pneumonia and 52.2% for Malaria.

79. Overall, 78% of the services supplied by the CHV concern the childhood illnesses against 22% in family planning.

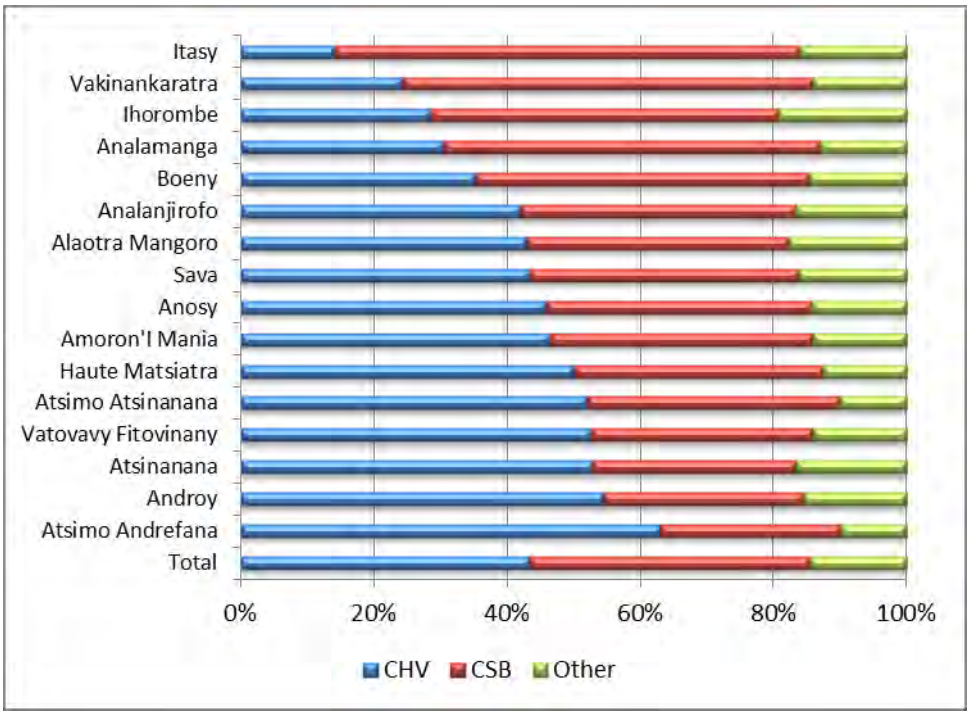


Figure 4 - IMCI services by type of service provision per region.

3.1.2. DESCRIPTIVE ANALYSIS OF THE FACTORS THAT MIGHT AFFECT THE USE OF CHV SERVICES

80. CHV proximity is an important criterium on the utilization of their services by the households. This factor has been measured by the distance separating the place of residence of the household and the nearest CSB. Figure 5 shows that the proportion of women practicing modern FP and buying contraceptive products from CHV increases as the distance from their house to the nearest CSB widens. The rate goes from 27.2% for the women residing in a distance less than 30 mn from the CSB to 50.7% for those living in a distance of more than one hour and this difference is significant at 5%.

81. The same findings are observed for IMCI. The farther the CSB; the more sick children are taken to CHV for consultation. The rate varies from 27.8% to 48.2% respectively for the child residing in a distance of less than 30 mn walk and those in more than one hour's walk (Figure 6).

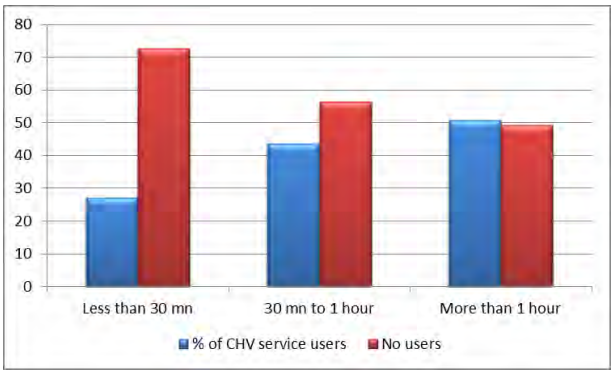


Figure 5 -Percentage of women practicing modern FP by distance between households and CSB

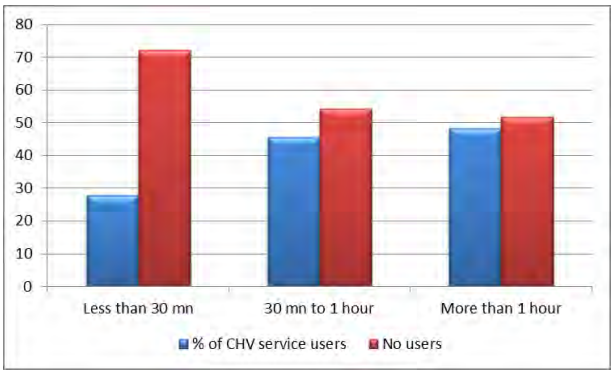


Figure 6 -Percentage of child illnesses covered seeking treatement from CHV by distance between households and CSB

82. CHVs are all functional in the communes visited during the survey. However, there is significant difference on the level of functionality from one commune to another. A large shift (more than half) from the use of CSB to the use of CHV services has been noticed since the implementation of community-based health care system (Table **1**). In general, the CSBs are all operational (basic services assured by personnel officially appointed to these services at least 5 days out of 7) in all the Communes visited in this study despite the fact that some of them do not always function to the users' satisfaction, such as the case of the CSB of Anosivelo, District of Farafangana, Atsimo Atsinanana Region, where the CSB Chief comes to duty only 2 days a week and all her colleagues are complaining as much as the CCDS members, the CHVs and the local authorities.

Table 1: Population's change in attitude from ther use of CSB to the use of CHV services

Type of services	CSB use before CHV implementation	CSB use after CHV implementation
FP/RH	ND	50,4%
Diarrhea	68,3%	32,9%
ARI	65,3%	27,9%
Malaria	68,3%	31,0%

ND: not available

83. All the 114 CHVs encountered and interviewed during the mission are operational and the table 2 gives an idea of their distribution according to their function. 43.5% of CHVs conducting FP/RH activities had declared to be level 2, able to treat patient with injectable contraceptives.

Table 2: Distribution of CHVs by function

Gender of CHVs	Mother CHV	Child CHV	Mother and child CHV
Male	2,1%	10,4%	12,5%
Female	35,4%	45,9%	87,5%
Total	37,5%	56,3%	100,0%

84. Note that the descriptive statistics presented in Table 2 are not representative of all CHVs hired and trained by SANTÉNET2. The sampling of CHVs was not random, rather the interviews were conducted with CHVs attending the focus group discussions during the qualitative data collection.

85. In Amoron'i Mania, all the interviewed CHVs declared having treated or advised men . This is not the case for the CHVs in Boeny, Ihorombe, Analanjirofo, Alaotra Mangoro, Analamanga, Anosy and Atsimo Andrefana that have never done that. According to the CHV, the main grounds for not using their services are the following: the low household purchasing power (39.3%), the preference for traditional medicines (36.9%) and the bad influence of traditional leaders (35.7%). Also, 20.2% of the CHV declare that people do not consult them because there is a closer CSB or other public/private health services nearby.

86. The sampled caretakers feel that financial problem constitutes the main constraint to access quality health services in case of the illness of their child. This constraint has been cited by more than 75% of the interviewed mothers, the second constraint is the lack of health services on for 13.8% (Figure 7).

87. However, for those who go to CHVs, about one quarter of the caretakers perceived that CHVs should be even closer to their home; the same proportion complained about the absence of means of transport, 19% for financial problem, and 14% for stock-out of health products (Figure 8).

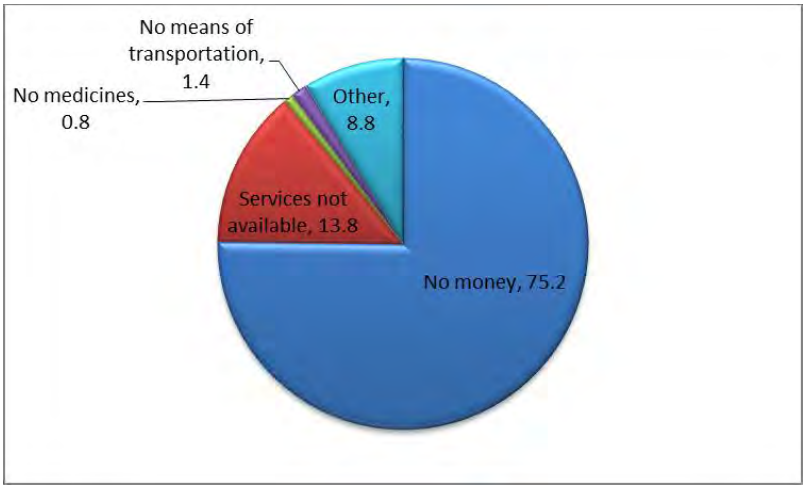


Figure 7- % of constraints to access any type of health services

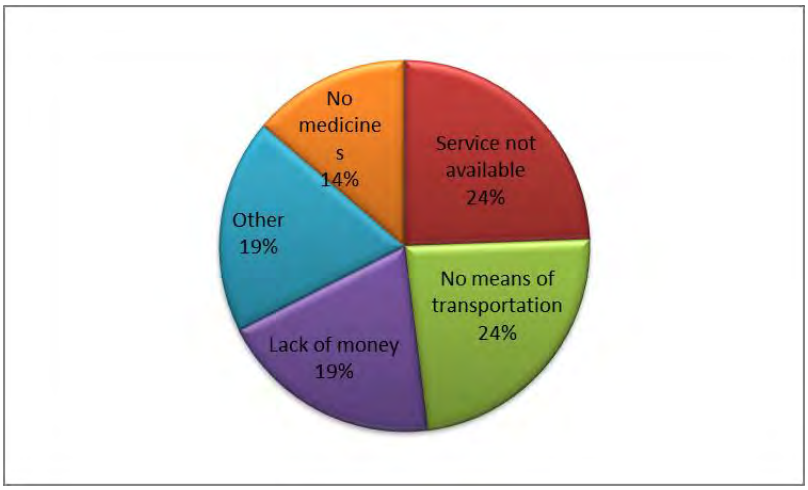


Figure 8 –% of constraints to access CHV services.

88. Stock-out is a common issue for almost all CHVs. The two main reported causes are (1) bad management of the starter packs granted by the project to the CHV; and (2) the stock-out at the supply point in the communes' administrative centers. The average duration of the health products stock-outs among the CHVs is 12 weeks for all products; but may reach up to 36 weeks such as the case of Viasur in Boeny. The main impacts of the stock-outs at the CHV level are: reference to CSB (for 77.4%), decrease of CHV attendance (for 53.6%) and return to alternative medicine (for 35.7%).

89. About 46.2% of women using modern FP seeking counsel from CHVs claimed to have been victim of FP product stock-outs at the CHV. Only 29.4% of them still continue to use the service of CHVs; the large proportion (more than 70%) decided to go to different health providers. For IMCI, about 31% of mothers have experienced health product stock-out at the CHV. As a consequence, one out of three of these caregivers decide not to use the service of CHVs anymore. In general, CHVs are experiencing more medicines stock-outs for IMCI than for FP products.

90. One year after the end of SANTENET2 and the beginning of the new USAID/MIKOLO project, the proportions of patients encountering stock out at the CHVs do not differ much, though the survey found 2-3 percentage points lower in the zones of intervention of the new project, respectively 46.2% vs 44.7% and 31% vs. 28.7% for FP/RH and IMCI.

Table 3 - % of stock-out victims by type of service providers

Victim of stock-outs at the CHV	FP Products supply		IMCI Products	
	CHV	Other	CHV	Other
Yes	29,4	70,6	63,4	36,6
No	54,1	45,9	34,3	65,7
Together	42,7	57,3	43,4	56,6

91. In general, there is a certain tendency toward the decrease of the use of the CHV services by the households as their income increases. Indeed, for the poorest households belonging to the first quartile of income, the utilization rate amounts to 45.1% and 47.7% respectively for the FP and IMCI. These rates go down respectively to 39.7% and 38.8% for the fourth quartile (wealthiest group). This difference is much more visible on the use of IMCI services. A study carried out in Uganda (Solome K. Bakeera, 2009) has stated the existence of a perception that public health services are offering low quality services characterized by lack of of medical cares, chronic health product stock-outs; and to cap it all, as CHVs are the lowest level in the health service chain, they are seen to be the worst. Therefore, people with the highest income would rather go to the upper levels of the chain of service than using the most accessible health care providers.

92. In order to ease the access of households to formal health services and to alleviate some financial barriers, SANTÉNET2 has set up embryos of Health Mutual Funds in two regions in Haute Matsiatra and Amoron'I Mania; and a Commune Mutual Funds in the Niarovana Caroline in Antsinanana region. The membership application rates for those health mutual funds are rather low: 12.3% in Haute Matsiatra, 2.1% in Amoron'i Mania and that of Antsinanana hasn't yet come into existence despite the organization effort.

The first reason for the provision of care in these mutual funds is the "cares and accidents" category (85%) but it is important to note than in Amoron'I Mania the antenatal cares (ANC) account for 5.3% of the reasons for the provision of care. The different reasons for not adhering to these mutual funds are shown in Table 4.

Table 4 - Reasons for not applying for membership of Health Mutual Fund (%)

Region	Reason for non membership				Total
	Not interested	Financial Problem	Other reasons	Not Aware	
Haute Matsiatra	44.5	38.6	16.9		100
Amoron'i Mania	36.6	7.8		55.6	100
Atsinanana	27.5	29.4	5.7	37.4	100

93. According to the interviews in focus groups, those who have benefitted from the functional mutuals have well appreciated the reductions of health expenses mostly for those who were referred to district health centers and to CSB. Yet, the quality of the provision of care by the CHD has been viewed to be unsatisfactory by the members who were interviewed. Cross questions asked to those who are responsible of the mutual in the district and CHD revealed that dissatisfaction comes from the fact that the patients were not well taken care of by some doctors on duty at the CHD who do not receive directly the fees from the patients in compliance to the reimbursement system.

94. The lack of knowledge about the mutual funds is the major impediment to the membership subscription of the Amoron'i Mania Mutual Funds (55.6%) whereas in Haute Matsiatra much more households (44.5%) do not seem to be interested in joining it. The lack of knowledge is due to the lack of adequate sensitization given that the funds of the mutual are not enough to pay for the BCC activity (Table 4). The sensitization budget was supported by the project before. The low purchasing power does not seem to be a major problem in Amoron'i Mania as only 7.8% of the households view it as an obstacle to join the health mutual funds. Indeed, the annual contribution is relatively low as it amounts in average between $1.5 and $2.5 per family per year. In addition, the payment by installments system through monthly contributions of the members seems to alleviate the membership costs but does not result in an increase of the participation in a significant way.

95. In the commune of Niarovana Caroline (Antsinanana Region) the mutual funds was set up but has not been functional since August 2013 due to a lack of organization of the management staff. The President did not conduct any sensitization action about the Mutual since his appointment to the post. Therefore, this mutual has not had any new members in the past six months. The large distance between the Fokontany and the communal executive office and the low purchasing power of the households account for the difficulty for some members to pay their contributions.

96. However, in the commune of Ambositra, (Amoron'i Mania region) the health mutual funds is functioning properly and the members regularly pay their contributions. Also, the health insurance system functions especially in urban areas and there are only 3.6% of the surveyed women who are wage earners and consequently benefit from a provision of care by a health insurance system through their employer (either the state or a private firm).

Table 5 - Decisions made by the caregiver when a child is sick (%)

	Taking no action	Giving herbal tea	Autome-dication	Taking to a healer	Taking to the CHV	Taking to CSB	Other	Total
Diarrhea	3,2	5,5	17,9	0,4	37,5	32,9	2,7	100
ARI	3,6	8,6	20,6	0,7	37,2	27,9	1,5	100
Malaria	1,2	2,6	19,9	0,1	42,0	31,0	3,4	100

97. Table **5** shows that overall; caregivers take actions when their children are sick. CHVs

are the main source of primary health services providers they consult to treat childhood illnesses, closely followed by CSBs. Auto-medication is yet important with 18 to 20% of the cases.

98. Table **6** shows the facts that trigger the decision of the caregiver to seek treatment. In general, caregivers do not go to CHVs service until the illness of the child is getting worse. This is the case for more than one out of three to almost half of the cases. For ARI and Diarrhea, about 17-20% is waiting for the results of alternative treatments before deciding to take her child to the CHV. In general, less than 10% decide to seek treatment from CHVs at the beginning of the symptom of illness.

Table 6 - Decision point to take the sick child to the CHV (%)

	Immediately on the first symptom of the illness	When alternative treatments are fruitless	When the illness is getting worse	Others	Total
DIARRHEA	7.5	15.4	39.9	37.2	100.0
ARI	7.1	20.8	33.4	38.7	100.0
MALARIA	4.8	8.9	46.6	39.8	100.0

99. For the use of the CHV services by to the age of the women, a certain tendency toward a decrease is noticed as women's age axceeds 45 (Figure 9). However, it seems that women less than 26 years old and those between 36 and 45 years old (45%) use more the services of the CHV for FP compare to those between 26 and 35 years old (42%). By type of childhood illnesses, the use of CHVs for malaria is slightly above the two other diseases (Figure 10).

100. Whether on FP or on IMCI, Figure 11 shows that the use of CHV services tends to decrease as the level of instruction of the women/mother is is higher. In the case of FP, the rate evolves from 53.4% to 35.8% respectively for the illiterate and the women having a secondary level of education or more. The same situation is observed for the case of IMCI, going from 45.1% to 32.8%.

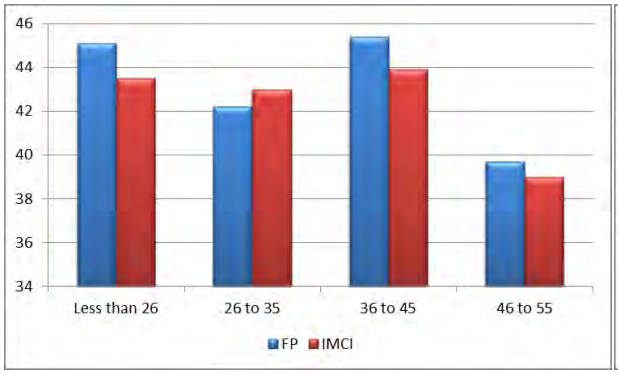


Figure 9 - % of CHV users by the age of caretaker/WRA

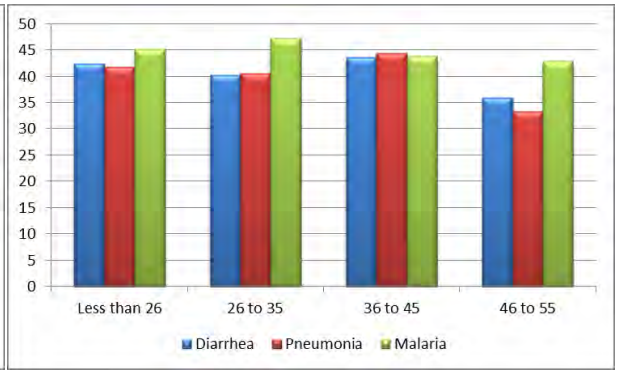


Figure 10 - % of CHV users by the type of disease and the age of caretakers

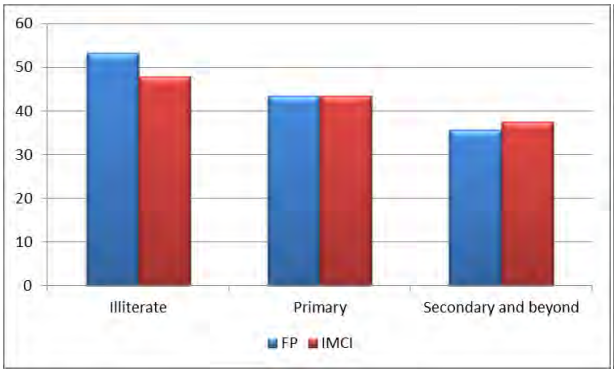


Figure 11 - % of use of CHV services by the education level of caretaker/WRA

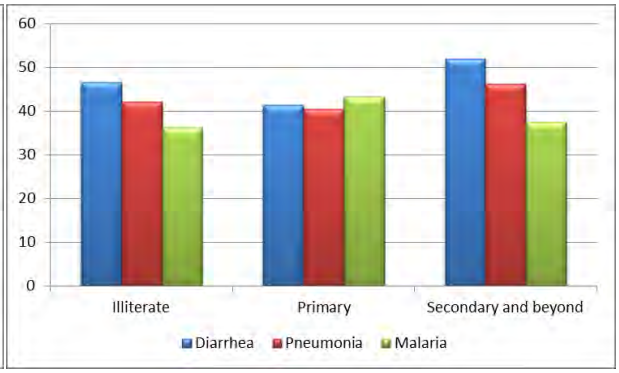


Figure 12 - % of CHV users by the level of education of caretaker and the type of disease

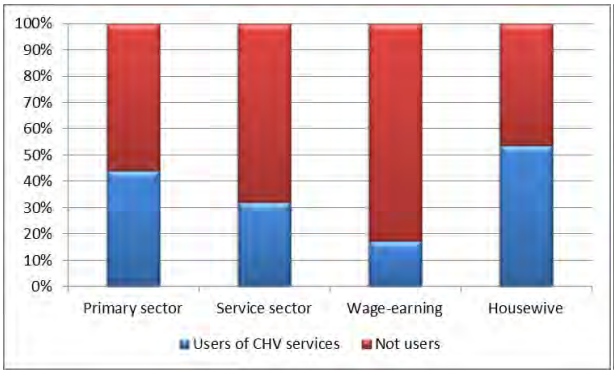


Figure 13 - % of CHV FP service uses by the WRA's activity

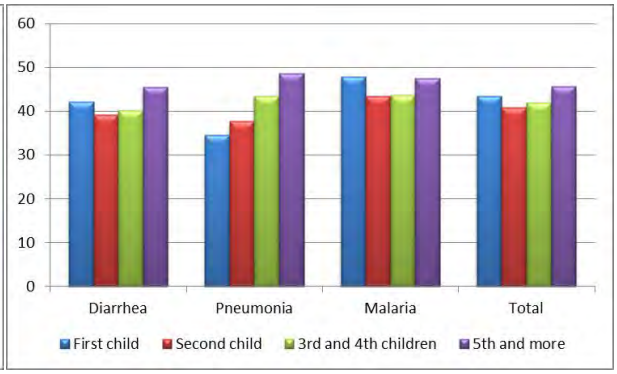


Figure 14 - % of CHV use by the sick child's birth rank and type of disease.

101. For FP, Figure 13 shows that women involved in the primary sector are more lkely to use the services from CHVs compared to those in the service sector, respectively at 44.8% vs. 32.1%. Another aspect of women activities, related to the economic sector also shows that housewives will prefer seeking FP counsel and treatment from CHVs compared to wage-earning women and traders, respectively at 53.8% vs. 27.4%. Indeed these results are similar because of the likely correlation between sectors and women's activities.

102. The use of CHV services for childhood illnesses according to the child's rank of birth does not reveal any difference. The child's birth rank was used as proxy to the level of knowledge of the mother in matter of childhood disease. The assumption is that the mother will get more and more experience on childhood illnesses as she gives birth and takes care of her children. Figure **14** shows that the distribution of the children treated by CHV by rank of birth is fairly identical, with the exception of pneumonia where the utilization seems to rise jointly with the sick child's birth rank.

103. Although 80.1% of women who practice the modern FP know well the roles played by the CHVs on family planning, only 49.8% get counsel and contraceptive products from the CHV. ON the other hands, out of the 19.9 % who do not know the CHV roles, there are yet 14.2% who decide to seek counsel from CHVs. Young women (age 15 to 25) in union consitute 12.6% of all women practicing modern FP.

Table 7 – Use of CHV Service for FP by Knowledge of CHV roles

Knowledge of CHV roles in FP	Use of CHV services for FP (% of WRA)		Total
	CHV	Others	
Yes	49,8	50,2	100
No	14,2	85,8	100
Together	42,7	57,3	100

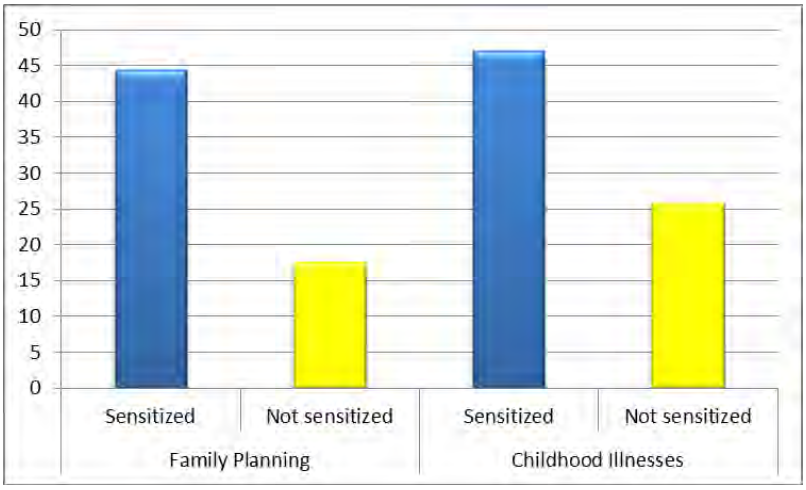


Figure 15 - % of Use of the CHV services by exposure to BCC.

104. For family planning, with a percentage of more than 93% exposed to FP BCC, the effective use of the CHV services remains relatively low (44.5%). Yet, 17.6% of non sensitized women decided to get FP treatment and counsel from CHVs.

105. For IMCI, the utilization rate of the CHV services is a bit higher at 47.1% for the caregivers exposed to BCC against 25.9% for those not hearing health messages on IMCI and CHVs. Again, there are unreached caretakes who choose to seek the services of CHVs for their sick children.

106. Before the existence of the CHVs, about 28.2% of illnesses was treated at the CSB; closely followed by other health providers such as private doctors and dispensaries or public health centers in the districts at 28.0. Automedication is used by 25% and traditional healers at19% (Figure 16).

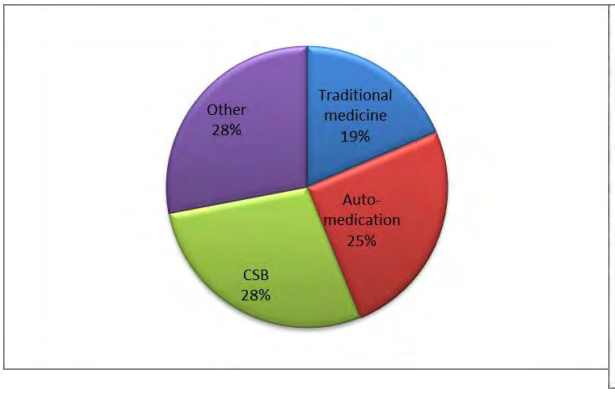


Figure 16 – Use of CHV services by past-practice of caretakers (% of users)

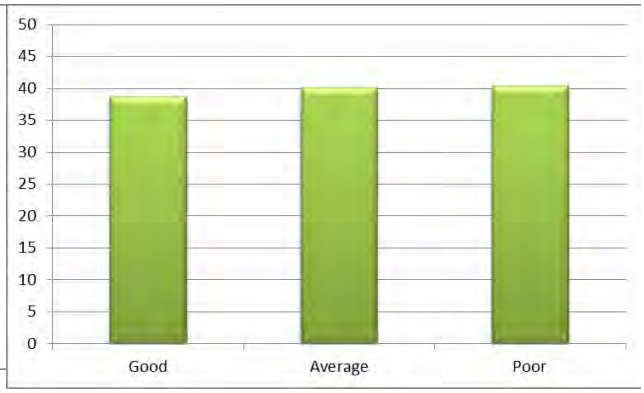


Figure 17 - Use of CHV services by the level of knowledge about the disease (% of users)

107. Out of the 4,490 mothers of children with diarrhea, pneumonia or malaria, observed during the survey period, 66.9% have knowledge about the illnesses. The knowledge about the disease is already a capital to identify the disease immediately after the first symptoms. About 6.7% of mothers fail to identify the disease until it reaches a high level of seriousness. Figure 17 shows that caregivers who know less about the disease of their children will go to CHV for consultation more than caregivers who get more knowledge. However, the differences are very small (almost the same between caretaker with average and poor knowledge).

108. For family planning methods; most of the women with poor knowledge of the CHV's roles on FP treatment and counseling avoid going to the CHVs (Table **8**). On the contrary, almost half of the women having good knowledge of the CHVs' roles use their services.

Table 8 - WRA distribution by the knowledge about modern FP methods

Knowledge of CHV roles in FP	Use of CHV services for FP (% of WRA)		Total
	CHV	Others	
Good	42.7	57.1	100
Poor		100.0	100
Together	42.7	57.3	100

109. According to Figure 18 and Figure 19, it seems that the worship practice does not modify the behavior of the woman/mother as regards to the use of the services of the CHV both concerning the modern FP and the cure for childhood illnesses. For FP, Catholics and other religion appear to be more reluctant to use the CHV services; however this may be the overall trend on the use of FP services in general for these categories of the population.

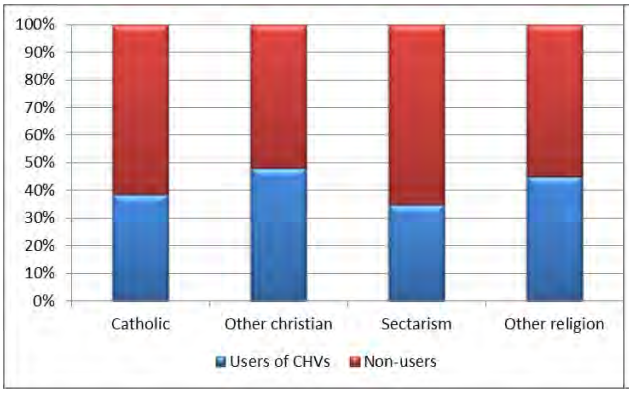


Figure 18 – Use of CHV services for modern FP over the last month by religion (% of users)

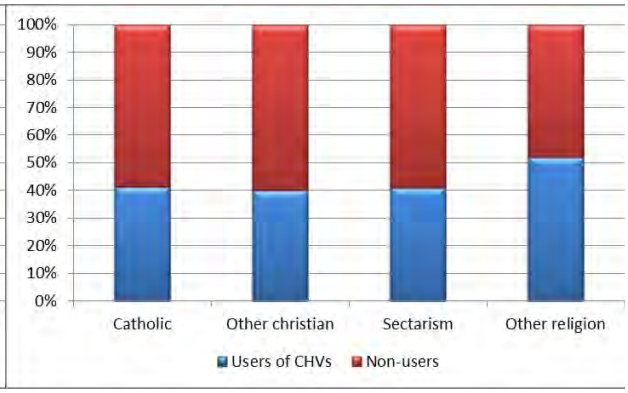


Figure 19 – Use of CHV services for IMCI over the last month by religion (% of users)

110. Social mutual assistance is a part of the tradition in rural area and the study has taken it into consideration to see if it is used as a mean to improve the use of community-health services. The mutual assistance may deal with different aspects from the social life to the economic life within the community. For example, in order to solve some constraints to access health services, a low income household can receive supports from the community as mutual help.

111. Within the context of this study, only 3.9% of the mothers having sick children declared to have benefitted from mutual assistance to access health services. Among them, 45.2% have used it to take the sick child to the CHV. In the extensive families in Androy, the social mutual assistance appears in the form of a house to house collection for the benefit of the households who have serious health problems, thus in the need of special care provision (hospitalization, surgery etc…). Unfortunately, those area isolated cases and overall the study did not sho

significant impact of this type of mutual assistance on the use of CHV services.

112. More than 96% of the surveyed women have appreciated in a positive way the behavior of the CHVs in their Fokontany. This statement is valid for both the CHV mother and the CHV child. Slightly less than half of these women (43.6%) are more satisfied with the quality of the FP care received from CHV compared to one fourth (22.4%) for women assessing the behavior of CHVs as negative. For IMCI, negativbe perception of the CHV behavior is associated with the non-use of CHVs services for their children.

113. The percentage of women using a modern FP method, having a relational problem with the CHV do not exceed 1% and neither does that of the mothers having children ill with diarrhea, pneumonia or malaria. Similarly, as regard to the provision of care for illnesses, the utilization rate of CHV services is dramatically reduced among the mothers showing disapproval of the latter.

114. The conditions of the media coverage at the village level may or may not facilitate the sensitizations of families on the issues of health and use of CHV services. Table 9 shows that the community awareness campaign on childhood illnesses and on the family planning reaches more households (86%) in the village which access to radio station other than the national radio station which have a nationwide coverage.

Table 9 – Exposure to BCC from Media (% of households)

		Local radio or TVstations	National radio or TV	Total
BCC for IMCI	Yes	72.2	12.0	84.2
	No	13.2	2.6	15.8
	Total	85.4	14.6	100.0
BCC for FP/RH	Yes	69.1	10.9	80.0
	No	16.4	3.6	20.0
	Total	85.5	14.5	100.0

115. Health product stock-outs are higher in isolated zones in which the means of transportation are limited. About 82% of households are victims of stock-outs in the villages which are far from the main town of the commune where 58% of households live. During the focus group discussions, CHVs in isolated villages reported that they are frequently out of stock of critical health products such as Viasur, Pilplan ACT, and Pneumostop especially during the rainy season. In general, the medical supply system set up by the USAID Social Marketing project (ISM) is located at the commune storage facility points managed by supply point agents (SP). These centers are regularly supplied by the ISM project. During field data collection, the CHV based in the remote zones claimed that the SP could no longer get their supplies from ISM regularly thus the stock-outs. Table 10 shows the status of stock-out in relation to the distance between villages and communes. The proportion of household victims of stock-out when getting to CHVs peaks to 82.2% when there is no means of transportation (or canoe) between the commune and the village. The same pattern is observed as the distance between village and commune increases.

Table 10 – Proportion of Stock-out by Village remoteness (%)

Type of transport in the villages	Nothing or canoe	Car- moto-bicycle	Public Transport	Total
% of households having been victims of stockouts	82,2%	10,1%	7,7%	100,0%
Distance between villages and the CSB/main town of the commune (in mn)	**[60;120[**	**[30;60[**	**[0;30[**	
% of households having been the victims of stockouts	55,7%	27,2%	17,1%	100,0%

3.1.3. THE REGRESSION MODEL AND RESULTS FOR IMCI

116. Using the basic empirical model, the regression model linking the use of CHV services may be expressed as follows:

Y=f(X1, X2, X3, X4, E) in which:

The dependent variable Y is the decision of the caregivers to take the child to CHV in case of illness

X1 regroups the perception of the gravity of the illness and the knowledge f the disease, which includes the BCC received by the caretakers on the disease, the caretaker's level of knowledge about the disease, the type of childhood illnesses (diarrhea, malaria, or pneumonia), and the age and the birth rank of the sick child within the family.

X2 are the group of variables representing the faith in the treatment, which includes the faith of the caretaker on the CHV's behavior, and the personal relationship between the caretaker and the CHV.

X3 represents the access to CHV services, which include the distance between the household and the nearest CSB, the level of stock-out at the CHV, the financial barrier to access quality health.

X4 represents the confounding factors, which are the individual characteristics of the caretakers and the child including the matrimonial status, the ages of both caretakers and children, the gender of the child, and the education level of the caretakers, as well as any social support the household may receive. For the region fixed-effect, the model includes the categorical variable for each region.

E is the random error

117. To estimate the model, the consultant polled the cases of caretakers having children with the three childhood illnesses, during one year prior to the survey. Each disease is however identified by a categorical variable to assess whether there is behavioral difference across diseases. Note that some critical variables that could affect the use of CHV services are not included in the model because of the lack of variability across the observations. This is for example the case of the access and use of mutual health system. Table 11 presents the descriptive statistics of the variables used in the IMCI model estimation.

Table 11 – Descriptive statistics of the sampled observations for the IMCI Model

Variables	Average	SD for continuous variables
Decision of caretaker (1=go to CHV; 0=Other)	0.459	
Received BCC on IMCI (1=yes; 0=No)	0.812	
Childhood illnesses	1.916	
Diarrhea	0.486	
ARI	0.113	
Malaria	0.401	
Knowledge of the illness (1=yes; 0=No)	0.670	
Rank of sick child		
First child	0.240	
Second child	0.212	
Third child and beyond	0.547	
Age of sick child (Years)	2.095	1.284
Gender of the sick child (1=Male ; 0=Female)		
Problem with CHV (1=yes; 0=No)	0.023	
Behavior of CHV perceived by the caretaker (1=yes; 0=No)	0.965	
Stock-out at Village level (1=Yes, 0=No)	0.486	
Distance to nearest CSB (min)	93.742	63.561
Household annual income (million ariary)	1.043	1.311
Education level		
No education	0.245	
Primary	0.568	
Secondary and beyond	0.186	
Financial constraint (1=yes; 0=No)	0.254	
Social support at village level (1=yes; 0=No)	0.043	
Age of caretaker (years)	28.576	7.740

118. The consultant uses a probit regression to estimate the model. In addition, a region fixed-effect model was also estimated to assess the consistency of the coefficient estimates and to look at the difference that may exist across regions. The dependent variable is the behavior of caretaker when his/her child is sick. It can take two values: going to CHVs or doing other things such as going to CSB, going to traditional healers, auto-medication, or nothing. The analysis pooled all the observations on children with one of the three childhood illnesses i.e. Malaria, ARI, and diarrhea. However a categorical variable was added to the model to assess whether the behavior of the caretaker changes across the type of disease.

119. Overall, the model fits the data and allowed identyfing the key determinants of the use of CHVs for childhood illnesses. When estimating the region fixed-effect, there were no

substantial changes on the significance of the variables. The results confirm the findigs in the restricted model. The regression results in Table **12** present the marginal effect of each variable on the decision of the caretaker to seek treatment for their child from CHV.

3.1.3.1. Illness Acuteness And Knowledge

120. **Caretakers who had received sensitization on the three childhood illnesses and the roles of CHVs on the community-based health care provision are 23 to 24% more likely to take their children to CHVs for medical examination than caretakers who had not heard or received BCC.** Indeed, the descriptive analysis support the findings that sensitized mothers use more the CHV services compared to those who reported getting no IMCI BCC. This findings highlights the important roles that BCC activities, through diferent ways (media, IPC, etc) plays in changing the behavior of caretaker to seek for quality health care through CHVs.

121. **However, better experience of caretakers thus a good knowledge of the the disease results in lower probability of going to CHVs.** A good knowledge of the child illness by the caretaker will result in 7% lower probability of using the service of the CHVs. Indeed, the knowledge could be associated with auto-medication; or on the other hand could trigger a decision to seek health service from CSB or private clinics in case the caretaker has little confidence to the CHVs because of the gravity of the disease.

122. Caretakers behave differently by the type of childhood illnesses. **The proportion of those who take the sick child to the CHV is very similar for diarrhea and ARI. However, they are more encline to go to the CHV for Malaria (6% higher).** The difference is significant because only 11% of the sample caretakers had children with ARI vs. 48% for diarrhea and 40% for Malaria.

123. The rank of the children and the age of the sick child, which are associated with the experience of the caretaker in treating the illnesses, did not show significant effect, though the coefficients are negatives.

3.1.3.2. Faith in the treatment

124. **Caretakers who appreciate the behavior of the CHV are 21% more likely to use the CHV services in case of illness of her child than those who had bad judgement on the social behavior of the CHVs.** A more respectful behavior of CHV thus encourages the use of the services by caretakers in case of the illness of their children. After all, the distribution of surveyed mothers provides a utilization rate of the CHV services of 89% for mothers having a good appreciation of the CHV social behavior against 11% for those expressing bad judgment and those who refrain from expressing their feeling.

125. **The existence of a possible relational problem between the caretaker and the CHV influences negatively the use of CHV services.** The model shows that a caretaker having a relational problem with the CHV is 40% less likely to use the CHV services than a caretaker who is on good terms with the latter.

3.1.3.3. Access to Services

126. **An increase of one hour on the distance between the household's place of residence and the nearest CSB results in an increase of 6% of a caretaker having a sick child to use CHV services.** The longer the distance to the nearest public health centers, the more likely will the caretakers turn to CHVs for medical examination in the event of their children's illness. That result is confirmed by the descriptive statistics showing the use of CHV

services respectively at 27.08%, 45.,7% and 48.2% for distances estimated at less than 30 minutes walk, 30 minutes to 1 hour and more than 1 hour. The reason is simple: the farther the CSB, the more caretakers prefer using the CHV services to avoid walking or travelling too far to get an appropriate treatment for the sick children. Indeed in some cases, getting to the CSBs may require up to five-hour walk.

127. **Stock-out results in caretakers getting away from CHVs to seek treatment for their children. From the model estimation, caretakers who had been victim of product stockout at CHV is 7% less likely to use the CHV services again than those who had not been victim of such stockout.** However, while the result is significant, the magnitude of the effect is relatively low (7%). It seems to indicate that the stockout at the CHV does not drastically affect the decision of the caretaker to take the sick child to the CHV for medical examination. In other words, the stockout does not deter caretakers from using CHV services if their children get ill. The aspect of emergency enters into account. The caretakers might not know also whether health products are available at the CSBs thus the risk-taking behavior in trying to get treatment from the CHVs, which have more accessible services.

128. Revenue and financial constraints does not affect the decision to use CHVs services. The costs of health products at ther CHVs are highly subsidized by the donors hence it will not act as barrier to access quality health provision. In addition, the transportation costs to the nearest CSB may also outweight any expenditure on medicine at the CHVs. Indeed, most of the patients are poor and the decision relies on the confidence of the caretakers on the quality of the CHVs' health care provision.

3.1.3.4. Confounding factors

129. **The level of instruction of the mother acts negatively on the decision of the latter to use the CHV services in case of illness.** The model shows that caretakers having a secondary education level are 4% less likely to use the services of the CHV, compared to an uneducated mother, and the lower probability increases with the level of education; 12% less likely for caretakers with secondary education and above. Indeed, the descriptive analysis pointed up a tendency toward a decrease of the rate of CHV services use when the level of instruction of the mother increases. The proportions of users change from 48.0% and 43.5% to 37.5% respectively for mothers who haven't gone to school at all, with primary level and secondary or higher level of education.

130. **The existence of any forms of social support results in higher probability to use CHV services varying from 7% to 11% based on the two model estimations.** Social support may take different forms, from financial support from relatives and neighbors to the existence of common activities among villagers. This may even further lower the financial barriers to access quality health from CHV services.

131. **The coefficient estimates from the regional fixed-effect model are very close to the estimates from the restricted model. However, it depicts huge variabilities across regions**. The base is the Analamanga region, which is the closest to the capital city of Antananarivo. In general, villagers use the service of CHVs more than the situation in Analamanga, with the exception of Itasy, Boeny, Vakinankaratra, and Ihorombe. Itsay and Vakinanbkaratra are contiguous regions to Analamanga, and are regions with relatively good access infrastructure. The higher level of use in other regions could be the results of the lower quality of services from other health providers e.g. CSB in these regions. For example, caretakers in Anosy are 27.8% more likely to seed treatment from CHVs when their child is sick; 26.8% in Androy; 26.6% in Atsimo Anrefana; 15.7% in SAVA. Table **12** presents the detailed result estimation of the model on the determinant of use of CHV services for IMCI.

Table 12 – Probit Estimation of the Determinant of use of CHV services for IMCI

VARIABLES	Restricted Model			Region fixed Effect Model		
Dependent variables: Use of CHV services for IMCI						
	dF/dx	Sig.	SE	dF/dx	Sig.	SE
Illness acuteness and Knowledge						
BCC (1=yes)	0.233	***	(0.0204)	0.236	***	(0.0211)
Knowledge of disease (1=good)	-0.068	***	(0.0178)	-0.055	***	(0.0185)
Disease = Pneumonia (Base = diarrhea)	-0.007		(0.0263)	-0.037		(0.0269)
Disease = Malaria (Base = diarrhea)	0.058	***	(0.0172)	0.054	***	(0.0177)
Rank of children = 2 (Base = 1)	-0.015		(0.0242)	-0.012		(0.0246)
Rank of children = 3 (Base = 1)	-0.012		(0.0260)	-0.027		(0.0266)
Age of child (years)	0.006		(0.0063)	0.008		(0.0064)
Faith in treatment						
Has problem with CHV (1=yes)	-0.400	***	(0.0619)	-0.408	***	(0.0616)
CHV behavior (1=good)	0.215	***	(0.0463)	0.210	***	(0.0470)
Access to services						
Distance to CSB in minutes	.001	***	(0.0001)	0.000	***	(0.0001)
Stock out of health products (1=yes)	-0.070	***	(0.0158)	-0.074	***	(0.0171)
Financial constraints (1=yes)	0.028		(0.0183)	0.016		(0.0188)
Overall revenue (million ariary)	-0.008		(0.0063)	-0.007		(0.0063)
Confounding factors						
Matrimonial situation (1=married)	-0.056		(0.0511)	0.003		(0.0524)
Education level = Primary (base=none)	-0.047	**	(0.0193)	0.013		(0.0210)
Education level = Secondary and higher	-0.121	***	(0.0252)	-0.055	**	(0.0276)
Sex of the children (Male=1, female=0)	0.025		(0.0201)	0.018		(0.0192)
Age of caretaker (years)	-0.002		(0.0014)	-0.002		(0.0015)
Social support (1=yes)	0.068	*	(0.0382)	0.115	***	(0.0397)
Dummy Region (1=Analamanga)						
Vakinankaratra				0.002		(0.0513)
Itasy				-0.131	**	(0.0542)
Haute Matsiatra				0.215	***	(0.0481)
Amoroni Mania				0.128	***	(0.0476)
Vatovavy				0.212	***	(0.0453)
Ihorombe				0.017		(0.0510)
Atsimo Atsinanana				0.219	***	(0.0467)
Atsinanana				0.197	***	(0.0455)
Analanjirofo				0.079	*	(0.0472)
Alaotra Mangoro				0.120	***	(0.0450)
Boeny				0.020		(0.0475)
Atsimo Andrefana				0.266	***	(0.0458)
Anosy				0.278	***	(0.0446)
Androy				0.268	***	(0.0457)
Sava				0.157	***	(0.0484)

Restricted model: N: 4,263 ; LR Chi2 = 334.08; Prob > Chi2 = 0.0000
Region fixed-effect: N: 4,263 ; LR Chi2 = 519.95; Prob > Chi2 = 0.0000

132. Several factors enter into account, but some are outside the control of the SANTENET2 project. For example, the social norms in using traditional healers, the difficulty to access CSBs and CHVs even if the are located within the fokontany, where some villages may be located more than tens of kilometers from the main fokontany village.

3.1.4. THE REGRESSION MODEL AND RESULTS FOR FP TREATEMENT AND COUNSELING

133. Similarly, the consultant runs the model for women of reproductive age seeking family planning treatment and counsels. The model is presented as follows:

Y=f(X1, X2, X3, X4, E)
In which the dependent variable is the decision of the woman to use the service of CHVs for family planning counseling and contraceptive uses.

X1 is the perception of the necessity of FP, and includes the level of instruction of the mother and the sensitization received by the women (BCC)

X2 represents the group of variables for the belief in the care and includes the perception of the behavior of the CHV within the community, and her relationship with the CHV.

X3 accounts for accessibility to services, and includes the distance from the households to the nearest CSB, the level of stockout of product supplies at the AC; and the financial barrier to access quality FP services.

X4 represents the confounding factors, which are the individual characteristics of the caretakers and the child including the education level of the WRA and her professional activity. For the region fixed-effect, the model includes the categorical variable for each region.

E is the random error

The model was estimated with a probit regression to assess the changes on the likelihood of WRA seeking FP treatment and counsel from CHVs. The consultant adopted the same approach as in the IMCI analysis, by estimating a restricted model, then a region fixed-effect model. The results of the estimations are presented in Table 14.

3.1.4.1. Knowledge of the treatment

134. **The BCC on family planning, which emphasized the roles of CHV in the matter of FP influences positively the decision of woman to go to CHVs.** Ceteris paribus, WRA knowing the roles of the CHVs in the matter of family planning are 22.2% more likely to use the services of the CHVs compared to women who are ignorant about the assignment of CHVs. BCC may have a direct effect on the decision of the WRA to go to the CHVs, but the indicrect effects on friends, relatives, neighbors, family members especially husband could be also factors that support the decision of the WRA. All these other members of the households and neighbors were also exposed to the BCC messages on family planning.

135. **The age of the WRA has been found to significantly affect their choice to get to CHV.** Older WRA are less likely to get FP services from CHVs bu the magnitude is relatively low at 0.4% probability for one additional year. These older WRA may already have their preferred FP service providers before the onset of CHVs thus they may choose to continue with their

prefrences. Within the same idea, younger WRA may find opportune the proximity of FP services at their villages, thus the likely higher use.

3.1.4.2. Faith in the Treatment

136. **Good social behavior of CHVs results in higher number of WRA using CHV services for FP.** More respectful behavior of CHV toward the community encourages women to use their family planning services. Indeed, the model shows that women who appreciate positively the behavior of the CHV are 29.2% more likely to use their services, compared to women who assess incorrect social behavior of CHVs. This result is supported by the data from the unconditional average of women using CHV services by their perception of the CHV social behavior: 43.6% for women who have good appreciation against 19.1% for those who are not willing to express their view or who have bad appreciation.

137. Religion did not show significant effect on the decision to use CHV services. This result was expected becaus, religion would affect the decision to use FP method as it is disapproved by some faith, but not the decision to go to CSB or other FP providers after WRA had decide to use FP method.

Table 13 – Characteristics of the sampled for the Family Planning Model

Variables	Average (SD in parenthesis)
FP service providers 1=CHV; 0=Other	0.446
Level of education	
None	0.139
Primary	0.613
Secondary	0.204
Tertiary	0.029
University	0.007
Activity of the woman	
Primary sector	0.877
Secondary sector	0.095
Wage earner	0.028
Respectfull behavior of the CHV at the community 1=Yes; 0=No	0.965
Relational problem with CHV 1=Yes; 2=No	0.008
Understanding of the CHV roles in family planning 1=Yes; 2=No	0.789
Knowledge about modern FP method 1=Good; 2=Poor	0.996
Reveived BCC on modern FP methods 1=Yes; 2=No	0.941
Religion 1=Christian; 2=Other	0.820
Availability of FP services at community 1=Yes; 2=No	0.651
Victim of stock-out products at CHVs 1=Yes; 2=No	0.448
Age of the woman	28.29 (7.17)
Distance nearest CSB (minutes)	85.18 (60.73)
Annual income of the households (million Ariary)	1.14 (1.42)

3.1.4.3. Access to Services

138. **The distance between the place of residence of the households and the nearest CSB positively affects the use of CHV services by WRA.** The longer the distance between the place of residence and the nearest CSB, the more probably women will turn up to get FP services from the CHVs. The model shows that an increase of one hour of the distance from the CSB makes an increase of 6% of the probability for a woman to use the services of the CHV. The effect of distance is pretty much the same as the coefficient estimates resulting from the IMCI model. The unconditional averages from the descriptive analysis support the finding as the uses of CHV services amount to 27.2%, 43.6% and 50.7% respectively for the distances estimated at less than 30 mn walk, 30 mn to one hour and more than one hour.

139. **Stock-out negatively affects the use of CHV services for FP.** The experience of having FP products stock-outs at CHV ends up in a huge reduction of the probability for the women to get FP services from CHV. WRA having been victims of a FP product stockout at the CHV are 40% less likely to use CHV services again compared to women who have never experienced stockout. The strong negative effect of stock-out on the use of FP could be explained by the possibility of WRA to schedule their needs. In such case, if they did encounter FP product stock-out in their previous visit to CHVs, they have the possibility to choose other service providers.

140. The household financial income level influences negatively the use of CHV services by the WRA a one million Ariary increases on the financial income entails a decrease of 2.2% of the probability of the woman using the CHV services for FP needs.

3.1.4.4. Confounding Factors

141. Education and professional activities were not associated with the decision to use CHV services for FP. Also, the gender of the sick child does not show significant difference, meaning that caretakers indifferently bring their children to the CHV independently of children's gender.

142. **Again, there are no huge discrepancies between the coefficient estimates from the regional fixed-effect model and the estimates from the restricted model; supporting the robustness of the models. However, the variabilities across regions are also lower compared to the IMCI estimation**. It appears that the uses of CHVs are higher in the SAVA and Anosy. WRA in these regions are more likely to use CHV services compared to their peers in the Analamanga region. Because of the lack of health service providers in general, the roles of CHVs become more critical in these regions where the the modern contraceptive prevalence rate is quite low (DHS, 2008). Indeed, CHVs may be the only available proximity services in these regions. On the other hands, Itasy and Vakinankaratra regions are well known for the existence of several private health sector providers and relatively dense public services from the Ministry of Health; these may result in lower use of CHV services.

Table 14 – Probit Estimation of the Determinant of use of CHV services for FP

	Restricted Model			Region fixed Effect Model		
Dependent variables: Use of CHV services for FP/RH						
	dF/dx	Sig.	SE	dF/dx	Sig.	SE
Knowledge of treatment						
BCC (1=Yes)	0.220	***	(0.0676)	0.225	***	(0.0690)
Age of the woman (years)	-0.004	*	(0.0022)	-0.003		0.0022)
Faith in the treatment						
CHV behavior (1=good)	0.292	***	(0.0865)	0.266	***	(0.0924)
Has problem with CHV (1=yes)	-0.175		(0.1860)	-0.187		(0.1900)
Religion (1=Catholic)	-0.016		(0.0328)	-0.009		(0.0348)
Access to Services						
Distance to CSB in minutes	0.001	***	(0.0003)	0.001	***	(0.0003)
Stock out of health products (1=yes)	-0.403	***	(0.0298)	-0.392	***	(0.0324)
Overall revenue (million ariary)	-0.022	*	(0.0124)	-0.024	*	(0.0131)
Confounding Factors						
Education level = Primary (base=none)	-0.008		(0.0444)	0.022		(0.0469)
Education level = Secondary and higher	-0.042		(0.0525)	-0.017		(0.0568)
Professional activity (1=primary	0.072		(0.0483)	0.076		(0.0496)
Dummy Region (1=Analamanga)						
Vakinankaratra				-0.189	**	(0.0923)
Itasy				-0.251	***	(0.0778)
Haute Matsiatra				0.118		(0.0766)
Amoroni Mania				-0.068		(0.0822)
Vatovavy				0.168	*	(0.0884)
Ihorombe				0.104		(0.0826)
Atsimo Atsinanana				-0.138		(0.1100)
Atsinanana				0.100		(0.0733)
Analanjirofo				0.187	**	(0.0731)
Alaotra Mangoro				0.102		(0.0736)
Boeny				0.023		(0.0761)
Atsimo Andrefana				0.143	*	(0.0809)
Anosy				0.216	**	(0.0871)
Sava				0.201	***	(0.0757)

Restricted model: N: 1,190 ; LR Chi2 = 257.61; Prob > Chi2 = 0.0000
Region fixed-effect: N: 1,190 ; LR Chi2 = 320.59; Prob > Chi2 = 0.0000

3.2. CONCLUSION FOR EVALUATION QUESTION N°1

143. **The physical proximity results in more utilization of the CHV services**: the proximity of the CHV is actually an important factor in the decision of households to go for a consultation, compared to the long distance to CSB. The farther the distance to CSB, more caretakers go to CHV for medical examination in case of illness of their children.

144. **Stock-out results in lower use of CHV services for FP treatment and counseling.** From the model estimation, WRAs having been victims of a FP product stockout at the CHVs are 40% less likely to use CHV services again compared to women who have never experienced stockout. The magnitude of the impact if six times higher compared to the effect of stock-outs for seeking treatment for childhood illnesses.

145. **A better knowledge/public awareness campaign about specific illnesses or about the FP/RH will lead to more utilization of the CHV services**. BCC awareness campaign will lead to more use of the services of CHV. The proportion of sensitized women and who have faith in this sensitization using the services of CHV amount to 42.7% against 23.3% among women who have not been sensitized.

146. **The CHV selection process by the community and their public recognition by the local and/or the communal authorities are critical to avoid relational problems between CHV and the households and crucial to instaure confidence in the CHV.** A greater confidence of the population in the community health system results in more utilization of the CHV services. The quality of the social relationship of the CHV and the confidence of the population in the CHV are factors which influence positively the decision of the households to go to the CHV to both get care for the illness and for FP. This hypothesis is confirmed by the results of the household survey showing that mothers of low aged children consider confidence in the CHV as one of the reasons for the utilization of the CHV services to cure the main three childhood illnesses.

147. **Previous relational problems between the CHV or their family with potential users of the CHV services are the impediments to use the CHV services**. Although the proportion of households having had relational problems with the CHV is low, the consequences of those problems can be disastrous and are liable to reduce CHV attendance. As confirmed by the household survey and the focus group discussions with the beneficiaries, most CHVs had no relational problems with the users and they could carry on their work and ensure users' attendance. Also, several CHVs show a great availability and are often present in the villages to provide useful advices. The results of the regression and the qualitative results confirm that this relational quality of the CHV with the community is crucial to encourage the provision of care for infantile illnesses and FP services by the CHVs.

148. **A better and more respectful social behavior of the CHV in the village results in a more important utilization of their services**. This hypothesis is confirmed for both the provision of child health care and FP. The quality of the CHV social relations influences the decision of the household to go see the CHV. Selected by the villagers for their courage and their commitment to voluntary work, these CHV seem to be well integrated in their community. Virtually, most of the surveyed households did not state any negative behavior of the CHVs. Most of the CHV working with SANTÉNET2 have occupied the same position with other previous projects, some of which dating back to 2001 and have been held in good esteem in the villages. This advantage had help increasing the use of the CHV services by the population, with support from the SANTÉNET2 project.

149. **The reduction of financial barriers to the access to a higher quality health does not seem to end up in a greater use of the CHV services**. The utilization rate of CHV services seems to diminish gradually as the income of the household increases.

150. **The existence of social mutual does help promote the use of the CHV services**. A little less than half of the mothers claiming to have benefited from a social mutual help used such help togo to CHV for medical examination. Actually, getting a social mutual help for a household in order to ease their access to health services is not a current practice, it is difficult to draw the conclusion that this practice promotes the utilization of the CHV services.

In rare cases in which mothers receive social mutual helps to face household's medical expenses, the decision to take the child to the CHV is not influenced in a significant way by this reduction of expenses.

151. The implementation of health mutual funds at the commune level by the project has just lasted for a short period of time and has not permitted the management structures to become operational; neither did it allow carrying on the community awareness campaign on the membership of the mutual funds.

152. **A certain level of resources and family incomes is in favour the utilization of the CHV services**. A weaker level of resources and family incomes causes to utilize more the services of CHV. An analysis of the utilization of CHV services reveals a tendency towards a decrease when the income of a household increases. The level of the available resources of the household gets more weight in the decision to use the service of the CHV instead of the CSB where they have to pay a consultation fee. The regression results show that as long as the household income is low, they prefer to go see the CHV rather than to the CSB. Presently, all categories of incomes have access to the services of the CHV for a number of reasons: consultations are free, or the fees are reduced, medical treatments are free and the actual level of prices for medicines at the CHV do not exclude any social class even the most vulnerable ones.

153. **The characteristics of the villages (access to media, roads) result in an increase/reduction of the use of the CHV services**. The survey results (quantitative), confirmed by the CHV focus group discussions, have revealed that the isolation of remote zones of the project is a risk that might decrease the use of the services of the CHV causing more frequent medical supplies stockouts in the villages that are not accessible, especially during the rainy season. The product supply system of PSI meet some difficulties to provide products and medicines for the land locked villages, namely after the departure of SANTENET partner NGOs that used to help the CHV with the dispatching of the products. This situation of being cut off influences therefore the CHV attendance given that the availability of FP products is particularly of great importance for the increase of the utilization of the CHV services (cf. section 4.2 in the regression).

154. The level of access of the villages to media, namely to the national radio station and to other local radio stations in the proximity (FM) influences the level of sensitization of the households about FP and infantile illnesses. This likely effect on the access to the sensitization on the radios is not negligible because the sensitization of the mother about the infantile illnesses is a significant factor in the utilization of CHV services (cf. section 4.2 in the regression).

3.3. RECOMMENDATIONS FOR EVALUATION QUESTION N°1

155. **Continue improving the quality and skills of CHVs**: the sustainability of the community-health system has been illustrated by the high numbers of functioning CHVs, several months after the end of the support-project SANTENET2. This could be improved by periodical in-service training to keep the same spotless skills and respectful social behavior of CHVs toward the community and in the villages. The in-service training should be conducted by the CSB chief during the monthly meetings. The CCDS should be involved more in community awareness campaigns to better explain the CHV services to the population.

156. **Ensure that CHVs have all the required health products i.e. avoid stock-out as possible.** The purpose of the community-based healthcare approach is to provide accessible health service to beneficiaries. One critical component is the availability of health productrs, so CHVs can treat the patient. In the absence of health products, care seekers are obliged to go to

other places which may be farther. The approach requiring CHV to allocate money to buy health products may be an issue for low-income CHVs. System such as deferred payment terms would be more appropriate rather than cash payment.

157. Distance is a critical determinant of the use of CHV services. However, even with the community-based health-care approach, population living in fokontany comprising of several remote villages yet have difficulties in accessing CHV services. **Improvement could be brought on the reduction of the distance households and CHVs.** There should be a joint review with the Ministry of Health on the number of CHVs allotted to each community so that the remote villages can have their own CHV at proximity.

158. **Increase awareness of the population on the quality of care provided by CHVs.** BCC had demonstrated its effect on the use of CHV services. BCC could take several forms but there are other ways to further increase the outreach of the communication, for example the use of modern technologies such as phones and internet; the use of mobile video units that would attract youth and children; the use of sport, school as means of communication. BCC should be conducted adequately so that more educated and knowledgeable caretakers will decide to use the services of CHVs within their villages. Special awareness raising activity toward the more educated and the wealthier households, so that they will consider using the services of CHVs, available within their villages.

159. **Invest in increasing any type of social support to households.** This may be the traditional help among villagers, or more structured organizations such as village savings and loan associations. The failure of approach such as health mutual should be investigated since from the current survey, there is a lack of awareness of the population on the advantage of such organization.

3.4. FINDINGS AND CONCLUSIONS FOR EVALUATION QUESTION N°2:

"To what extent did the CCDS fulfill their roles and responsibilities in managing community health system, including support to CHVs?"

160. The SANTÉNET2 project had strenghtened local capacities to lead the community health activities through the committees of community social development (CCDS). The objective is to increase the appropriation of the governance and the coordination of the activities by the CCDS to meet the needs of the community health system and the requirements of quality health services. The evaluation team has carried out semi-structured interviews of 22 representatives of CCDS in 15 communes, randomly selected within the regions of SANTÉNET2. The exception was the Itasy region where CCDS members were not available (cf the list of CCDS visited in appendix). The information obtained from the CCDS members have been cross examined with information from the interviews of 84 CHVs that have answered the questions on the quality and the results of the collaboration with the CCDS. The next sections present the results of the qualitative surveys.

161. **More frequent meetings of CCDS result in greater use of the services of CHVs at the village levels.** One third of the surveyed CCDS are still holding regular meetings to plan health activities and are conducting evaluation of those plans (5 out of 15 CCDS). Most of CCDS were no longer functional. Most members complained about the incurred personal costs when conducting community works, unlike the case under SANTENET2 which provided stipends. These financial supports allowed them meeting the travel expenses in the villages to carry out community awareness campaigns and to monitor CHV activities. In addition, the initiatives e.g. periodic meetings came from the project staff or partners NGOs, not from the CCDS members themselves. Another issue is the political interference with the CCDS member activities. **Members who are involved in politics are unstable and may come and go as**

their responsibility such as communal authorities changes, thus making the organization unstable.

Table 15 – Activities assumed by the CCDS after the project

Responsibilities and Activities of CCDS	Number of CCDS involved	%
Community awareness campaign	12	80%
Dynamisation of CCDS in the Fokontany	8	53%
Share of information of Health	8	53%
Annual self evaluation	8	53%
Monthly planning	7	47%
Survey/follow up of action plan	5	33%
Evaluation of users' satisfaction	4	27%
Support for the management of medical stocks	3	20%

162. **The active participation of the CSB chief results in a greater capacity of the CCDS to manage the community health and the support for CHVs**. Although the CSB chiefs are fully members of the CCDS, the collaboration between the CSB and the CCDS is weak for two thirds of the CCDS that have been consulted (10 out of 15). The type of collaboration of the CSB chief with the CCDS concerns at least the reinforcement of the CCDS capacities to manage community health. Their collaboration is more in supports for the CSB toward the sensitization on various issues of health (ex: promotion of vaccination, antenatal care, wash etc) by the CCDS and the renovation of the CSB infrastructures by the CCDS (cf table B in annex)

163. The lack of collaboration between the two entities (CSB and CCDS) could result to the ineffectiveness of CCDS after the closeout of the SANTENET2 project. In most of the visited CCDS, CSB chiefs, as a member of the CCDS and central actor of the community health system, have not planned or implement any actions with CCDS. Currently, 5 out of 15 CCDS no longer hold planning nor activity monitoring meetings. In some cases, personal conflict added on top of the problem of the CCDS.

164. **On the other hands, the commitment of the CSB chief to the CHVs is more generalized in the visited communes.** Only 2 communes (in the region of Sava and Atsimo Atsinanana) had shown an absence of collaboration between CSB chief and CHVs. Even during the implementation period of the SANTENET2 project, some CSB chiefs had trained CHVs and supervised group of CHVs. According to 37% of the surveyed CHVs, the added value of the CSB chief commitment is appreciated in terms of the technical training quality, which is well adapted to the needs of CHV (Figure 20). Some CHVs think that their work had benefitted from the administrative supervision conducted by the CSB chiefs, either through visits to the Fokontany or through periodical meeting which follow the monthly CHV gathering at the CSB. However, the shortage of the means of transportation to the Fokontany and the lack of staff at the CSB are the main constraints to frequent supervision.

165. The active participation of the CSB chief through trainings and the supervision of CHV reinforce the CHV capacities. This commitment of CSB is at present weak, unable to meet the demand and capacity building needs from CHVs.

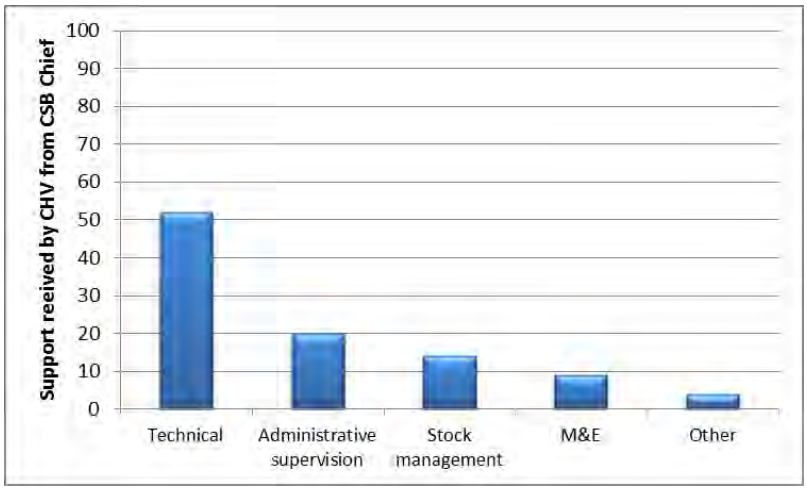


Figure 20 - Appreciation of the CSB Chief support to the CHV

166. **Good governance of CCDS, for example during the decision process results in a greater capacity to manage the community health and to support CHVs**. Note that the interviewed CCDS were unable to provide any management and good governance tools such as meeting minutes, plans or activity reports. The evaluation of good governance of CCDS was based on the self-appreciation by the CHVs, the CSB chiefs and the members of CCDS themselves. The FGDs indicate that less than half of the surveyed CCDS perceived that the CCDS is adopting good governance on the health sector after the closeout of the SANTENET2 project.

167. During the project life, actions from functional CCDS have ended up in community works that have improved the CSB and CHV health services. However, outside these community works such as construction of health huts; the extent of CCDS governance actions is weak because of CCDS organizational and capacity problems to assure their responsibilities up to the level of the fokontany. A more involvement of the CCDS into the community awareness campaign can contribute to more awareness of the community members to the services provided by the CHVs; and create a confidence climate of the population toward the community health system. The BCC received by the household positively affects the use of CHV services, whether for the provision of care for childhood illnesses or the adoption of family planning.

168. During the life of the project, the activities in which the CCDS were the most active are particularly the sensitization at the villages for WASH and community mobilization for the construction of community health huts (Table **15**). **Out of the 15 surveyed CCDS, three quarters have been able to build community health huts.** Sensitization on WASH and communication about CHV services also continued but only during the fokontany meetings. The other activities linked to the good governance such as health actions plan, assessment of communities satisfaction, the monitoring of the CCDS activities, self assessment of CCDS, the support for the implementation of medical supply storage facility points, and the search for financing are by far activities where the CCDS were less performing according to the CHV self-assessment.

169. Sustainability is a huge issue because CCDS had conducted all of these activities during the SANTENET2 project with support from the project. Unfortunately, most had stopped after the project closeout. Some members who are still active like the CSB chiefs or the fokontany chief act isolately without the CCDS structure to monitor CHV or conduct sensitization sessions.

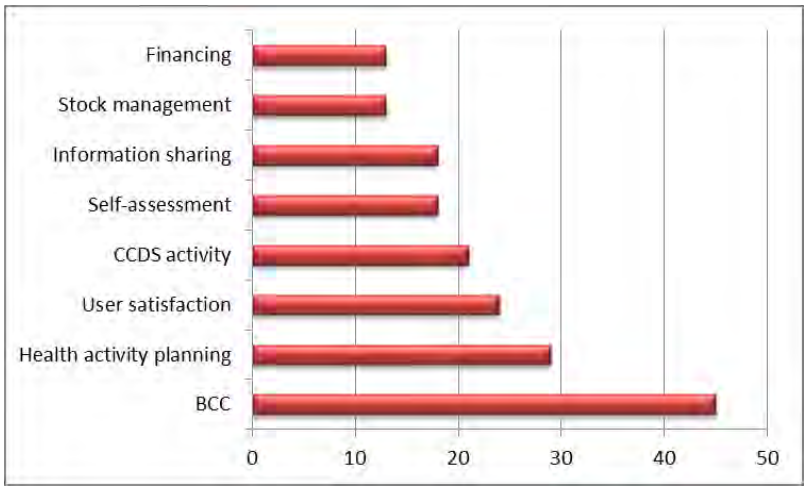


Figure 21 - CCDS priority activities during the SANTENET2 project

170. **One factor that may explain the weakness of the CCDS governance is that many of their members have not been trained by the SANTENET2 project as regards to their roles and responsibilities.** Coming from various entities, the CCDS members (10 to 15 members) need a strong leadership and a strong cohesion to ensure their responsibilities after the project closeout. These conditions have not been met, especially in monitoring the CHV activities in each fokontany. The motivation problems of the members of CCDS in connection with the absence of allowances and travel provision to the fokontany and the communes have been raised several times. The CCDS had not been entirely instituted to take over the activities supported by the SANTENET2 project such as the mobilization of the community and the monitoring of CHVs.

171. In the communes where few active CCDS have adopted good governance of the health sector (cf in annex the list of regions and their governance scores), the findings show they were able to facilitate and improve the quality and the use of CHV services. **Through community mobilization, the CCDS have brought their institutional support necessary to cover more households in the fokontany with health and hygiene messages.** The support on health BCC have as well helped with the restoration of the population confidence in the CHVs who needed that acknowledgement and empowerement; thus getting them a status of community health agent. Among the surveyed CHV, 17% think that these supports from CCDS in the sensitization have contributed to the increase of the number of user of CHV services. Nevertheless, because of the irregularity of the sensitization after the end of the project, the effect was not significant.

172. According to 12% of surveyed CHVs, one of the most tangible improvements brought by the CCDS actions is the setting up of an emergency evacuation system of patients to the CSB with the support of the community organization and the means of local transport (pousse-pousse, porters, etc).

173. **Overall, the lack of involvement of the CCDS on the management of the community health system negatively affects the use of the services of CHVs.** With the exception of the mobilization on the construction of community huts, no significant result of actions or decisions of CCDS could be measured during the evaluation, given the lack of activities of CCDS. The consultant could not assess its impact on reducing open defecation, or in achieving other community work. The extent of CCDS supports on the magnitude of the CHV use by the population is hardly obseerved because even in the regions where the CCDS have been the most active during the project life; **less than 4% of the surveyed households are aware of their existence i.e the CCDS did not reach the beneficiaries at the village levels.** Among

these households, only 22% declare that they have been informed about the decisions made by the CCDS. In addition, the improvements of the service resulting from the CCDS decisions often mentioned by the ressource persons concern rather the CSB services such as the improvement of patient reception and the rehabilitation of CSB infrastructures rather than the CHV services. These improvements are related to the modification of the consultation hours, construction of huts for patients, cleaning of CSBs…

174. After the project closeout, the CCDS had organization difficulties linked to the lack of involvement of the members to their initial work and to the gap on the financial ressources for periodical meetings and travel. The planning meetings and the monitoring of health activities could not take place in most of the CCDS thus the problem of sustainability.

3.5. RECOMMENDATIONS FOR EVALUATION QUESTION N°2

175. Support the CCDS to organize other sessions of awareness campaign on the 3 childhood illnesses and on FP to increase awareness thus subsequently get the population to opt more willingly for CHV services.

176. Redefine jointly with the commune the roles and responsibilities of the COSAN and those of the CCDS to avoid any overlap and to plead for more consideration and for more provision of means for the CCDS. Support for more awareness and promotion of CCDS in the commune.

177. Give more intensive training sessions to CCDS members to enable them to understand better their roles and responsibilities regarding the management of the community health development plans.

178. Encourage the commitment of the CCDS to community mobilization activities because that has allowed to create infrastructures like community health huts but also more for a better functioning of the CHV.

179. The CCDS implementing approach should be reviewed to better incite local initiatives and to break the link between the lack of motivation among the members and the dynamic of the CCDS. The heavy roles and responsibilities of the CCDS should be redefined and objectives to be precised to better support the CHVs. The organizational support of the CCDS should be done for some duration in order to let them reach a certain level of structure and organizational maturity.

180. Support from CSBs should be directed towards the capacity reinforcement of CCDS and CHVs to better manage the community health system as a technical trainer and should be put forward within the CCDS to improve the good governance of the health sector.

181. Make the CSB chief aware of their responsibilities on the training and the technical supervision of the CHV to improve the collaboration and the interaction between the CSB and CHVs. In addition to these technical provisions, the latter can benefit from the reference system and get more access to medical supplies at the CSB. This action aims at integrating the CHVs into a team rather than letting them act individually on their own within the community. The supervision of CHVs by the CSB chief will give the CHV a feeling of belonging to a unique “profession”, which is the health service provision at the community.

182. Back up any initiative to draw the assignment zones out of isolation (transports, telephone, local radios) so that the population can have access to more information and more exchanges which might contribute to a better understanding of the CHV function.

183. Knowing the importance of sensitization to the issues of health and hygiene aiming at the household behavioral change, the communication strategies and messages through various channels, namely radios, should be improved. A better exploitation of these channels is completed by the sensitization of CHV limited to the geographical coverage of their message. The know-how of the CCDS members in matter of community sensitization should be capitalized and directed to the achievement of tangible results to have impacts on the use of CHV services.

184. The implementation and the sustainability strategy of the health mutual funds should be accompanied by some intense community sensitization campaigns and by some organizational supports for a longer period. Those measures aim at helping the governance structures to become fully operational, to reach financial autonomy to face the difficult economic context in rural areas. The improvement of the CHD services is an important component to support the setting up of the mutual funds and should be part of the assistance packages at the end of the health services delivery chain.

ANNEXES

ANNEX I: EVALUATION STATEMENT OF WORK

The Contractor shall conduct an evaluation and analysis of the SANTÉNET2 project as described below:

I. EVALUATION QUESTIONS
The Contractor must pose and answer the following questions:
Question No 1: To what extent did the SANTÉNET2 interventions contribute to the utilization of CHV services by the rural population in the project's intervention zones? The Contractor will propose and use a behavioral model of health service utilization to identify the key variables explaining the differences on the level of use of health services from CHVs in the areas of interventions of the SANTÉNET2 project. In addition to the effect of specific SANTÉNET2 interventions, confounding factors must be included in the analysis. SANTÉNET2 main interventions may include increased awareness of the population on treatment and prevention of selected children' diseases, and on family planning; increasing the knowledge and skills of CHVs; reducing stock-outs of selected health products at the village level; reducing financial barrier to access health services; and empowering CCDS. Confounding factors may include cultural variables; individual variables (age, sex, education, marital status); type and severity of illness; economic variables (cost of care, average wealth of the community, access to food); and geographical variables (distance and physical access, access to media); etc…

Question No 2: To what extent did the CCDS fulfill their roles and responsibilities in managing community health system, including support to CHVs?

The approach champion commune promoted by SANTÉNET2 relies on the empowerment of local development committee. USAID wants to get an informed analysis on the aptitude of CCDS to fulfill their roles and responsibilities. The analysis encompasses the roles that CCDS plays from the policy in making decision on health related issues at the community level, the identification and the choice of CHVs, the monitoring of the community's need in term of health, through the supervision of CHVs.

For the analysis, the Contractor must examine the difference across gender in answering the evaluation questions. There might be different preferences in seeking healthcare from CHVs depending on the gender of caretakers of children or the head of households. From a cultural standpoint, it may be difficult for women of reproductive age seeking family planning counseling or treatment to visit male CHVs.

There are also gender-based hypothesis that may affect the capacity of the local health committees to do and achieve their objectives. The Contractor will look at factors such as the composition of the CCDS, the method of adopting decisions. More women members may improve the capacity of the CCDS to deal with community health. Decision-making based on top-down approach from the elders, often men, may also affect the capacity of the CCDS to perform well.

This evaluation seeks to understand the gender-based characteristics that would affect the use of CHV services and the capability of the CCDS to support the community health system.

II. EVALUATION METHODOLOGY

USAID will rely on the expertise of the Contractor to improve the suggestions below, thus to propose methodologies that will ensure stronger internal validity of the evaluation.

1. DATA COLLECTION AND SAMPLING METHODS

Data collection will take place in sampled sites selected by the Contractor, based on the instructions in this SOW. The Contractor may contact SANTÉNET2 or other entities for additional information on the characteristics of the intervention sites. Given the geographic locations of the SANTÉNET2 zone of interventions, the evaluation team members may be required to travel to remote sites, on poor roads and possibly on foot.

Evaluation Question No 1: To what extent did the SANTÉNET2 interventions contribute to the utilization of CHV services by the rural population in the project's intervention zones?

SANTÉNET2 did not collect baseline information before the implementation of its activities; therefore, this evaluation cannot rigorously attribute the depicted changes as the impact of SANTÉNET2 interventions. It will however bring more insights on the determinants of the changes on the utilization of CHVs using cross-section data from households within the SANTÉNET2 areas of interventions2.

The Contractor shall use the following methods: (1) Review of relevant program documents and analysis of SANTÉNET2 performance monitoring data; (2) Structured quantitative survey to assess the extent of various factors determining of use of CHV services. Summary of the findings from the desk review documents will be presented in the Methodology and Evaluation Plan, and will be used to inform the questionnaires for the quantitative survey. For the structured survey, the Contractor shall collect data from a probabilistic representative sample of households within the SANTÉNET2 zone of interventions. To measure the utilization of CHV services, the Contractor may use the indicator whether caretakers or individuals seek treatment from CHVs in case of health issues. The Contractor shall conduct separate analysis for children's illnesses (diarrhea, acute respiratory infection, and fever) and for family planning and reproductive health. The Contractor shall use the sampling framework based on fokontany as primary sampling units (PSUs). Excluding urban areas and most of the large fokontany having CSBs, the size of a fokontany would be similar to the primary sampling units used by the 2008 Demographic and Health Survey and the 2012 Millennium Development Goal survey. The use of fokontany as PSU has however the advantage of being consistent with the official administrative boundary which is the basis for the community health system. SANTÉNET2 worked in 800 communes, within 16 regions and 70 health districts. Roughly, it contains 5,500 PSUs located more than 5 km from the nearest public health facilities.

The Contractor shall use two-stage cluster sampling. Administrative regions constitute the clusters. First within each region, the Contractor will randomly select PSUs among the list of SANTÉNET2 village of interventions. The second stage is a probabilistic-proportional to size sampling of households within the selected PSUs. The sample size must be close to 3,200 households, spread across the 16 regions of SANTÉNET2 interventions. The Contractor should propose an approach to minimize intra-cluster correlations.

Each of the indicators in this evaluation requires specific group of respondents. The indicator identifying whether caretakers seek treatment from CHVs when their child had diarrhea, fever, or cough relies on the information from mother of children 0-59 months. The indicator identifying

whether women of reproductive age seek treatment/counseling from CHVs for family planning and reproductive health relies on the information from women 15-49 years in union.

In answering the Evaluation Question No 1, the Contractor should test the following hypothesis:

1. Physical proximity results in higher use of CHV services;
2. Reduced stock-outs of selected drugs results in higher use of CHV services;
3. Better knowledge/awareness of the population on selected diseases or FP/RH results in higher use of CHV services;
4. Higher confidence of the population to the community-based health system results in higher use of CHV services;
5. Reduced financial barrier to access quality health results in higher use of CHV services;
6. Higher involvement of the community and/or CCDS to the health system (supervision, health huts…) results in higher use of CHV services;
7. Villages characteristics (access to media, roads…) results in higher/lower use of CHV services;
8. Other hypothesis proposed by the Contractor

The Contractor shall collect data on all possible causes explaining the difference of the use of CHV services. The Contractor will use tablet computers to collect quantitative information. USAID will provide this equipment. The goal is to ensure high quality and effective monitoring of data collection, and to reduce the time spent on data entry, cleaning, and data analysis. However, it is the responsibility of the Contractor to train its staff on the proper use of the equipment. To facilitate any follow-on, the location of the respondents must be geo-localized.

Evaluation Question No 2: To what extent did the CCDS fulfill their roles and responsibilities in managing community health system, including support to CHVs?

The Contractor shall use the following methods to answer the second Evaluation Question: (1) Review of relevant project documents and analysis of SANTÉNET2 performance monitoring data; (2) Interviews to assess the capacity of the CCDS to achieve its roles and responsibilities on the management of community health and the support of CHVs. Summary of the findings from the desk review documents will be presented in the Methodology and Evaluation Plan, and will be used to inform the interview guide for the interviews.

The Contractor may use in-depth interviews of key informants and/or focus group discussions. Sampling for the interview may not be statistically representative of the SANTÉNET2 zone of interventions but at the end must reach a point of data saturation, where the evaluation team is no longer hearing or seeing new information. The Contractor will request the list of potential informants from the USAID/COR.

In answering the Evaluation Question No 2, the Contractor will test the following hypothesis:

1. Frequent meeting of CCDS results in higher capacity to manage community health and support CHVs;
2. Active participation of CSB Chief results in higher capacity to manage community health and support CHVs;
3. Good governance at CCDS e.g. during decision making results in higher capacity to manage community health and support CHVs;
4. Good communication with village authorities results in higher capacity to manage community health and support CHVs;
5. Other hypothesis proposed by the Contractor

For the interviews and focus group discussions, the Contractor will use digital recorder (not provided by USAID) to ensure the quality of the collected information.

2. DATA ANALYSIS METHODS

The Contractor shall develop and present, for USAID review and approval, a data analysis method and plan4. The plan details the procedures used to treat and analyze quantitative data and the process to transcribe and analyze qualitative data. The analysis plan should include a list of possible descriptive tables that will be produced from the collected information, as well as empirical model for any in-depth analysis the team deemed necessary.

By USAID policy, any results involving people must be disaggregated by gender.

C.5 DELIVERABLES
The Contractor shall furnish the following deliverables and reports:

1) Methodology and evaluation plan
2) Completion of fieldwork
3) Descriptive tables and oral presentation of preliminary findings
4) Draft evaluation report
5) Final evaluation report, including all media devices and data

METHODOLOGY AND EVALUATION PLAN

The methodology and evaluation plan will be submitted for approval to the USAID/COR of the evaluation activity no later than 30 days after the award. No later than 10 days after receiving the methodology and evaluation plan, USAID will conduct a planning meeting with the evaluation team to discuss and validate the methodology and the evaluation plan. The Contractor has 5 days after the meeting to revise and submit the final Methodology and Evaluation Plan to USAID. The fieldwork must not begin until the USAID/COR approves the Methodology and Evaluation Plan. The plan could be either in French or in English and must not exceed 30 pages excluding Appendixs. At a minimum, it must include:

- A background section summarizing the findings from a desk review, related to each evaluation question (8-10 pages)
- A refined, detailed evaluation methodology to answer each question must be presented by the Contractor in this section. It includes the data collection methods, the sampling process and the selected survey sites, the presentation of the data collection instruments, and the limitation of the methodology (10-15 pages). The tools used in conducting the evaluation such as questionnaire, checklist, and discussion guides are required in the annex. Once approved by USAID, all modifications on the methodology and evaluation plan need to be agreed upon in writing by USAID.
- A presentation of the process for quality control: assessments and management (1-2 pages)
- A detailed data analysis methods with the list of the tables of descriptive statistics (2-3 pages)
- A presentation of key implementation challenges and risks related to the evaluation process (1 page)
- A schedule for the evaluation (1-2 pages)
- Appendix including at a minimum

- Scope of work of the evaluation
- Location and map of selected sites to be visited over the evaluation
- List of key-informants, individuals for interviews
- Data collection instruments

II. COMPLETION OF FIELDWORK

Fieldwork will take 80 days, including recruitment and training of enumerators and supervisors; pre-testing of survey and interview tools; testing of the system using tablets for data collection. In addition, this timeline includes travel and courtesy call to local authorities. No later than 5 days after the end of the fieldwork, the Contractor will provide the USAID/COR a report showing the completion of the fieldwork.

The completion report may be submitted either in French or in English. The report must include at a minimum the list of the selected villages with the number of surveyed households, the proportion of refusal and replacement. Brief description of each PSU such as road access, access to media and social services, and other socio-economic characteristics must be presented as an Annex.

USAID has to either approve or reject the completion report within 5 days after submission.

III. DESCRIPTIVE TABLES AND ORAL PRESENTATION OF PRELIMINARY FINDINGS

No later than 45 days after the end of data collection:

- The Contractor provides the USAID/COR all the descriptive tables defined in the Methodology and Evaluation Plan. The tables should be in Excel format.
- The Contractor must plan an oral presentation of the preliminary findings and conclusions to USAID, based on the findings from the fieldwork and the preliminary descriptive tables.

The Contractor must take into consideration the comments received during the presentation in drafting the evaluation report. To do so, the Contractor must identify a note-taker during the presentation, and add the presentation minute as an Annex to the final evaluation report.

IV. DRAFT EVALUATION REPORT

No later than 30 days after the presentation of the preliminary findings, a draft report of the findings and recommendations must be submitted to the USAID/COR. The written draft report may be submitted in either English or French. The report must clearly describe findings, conclusions, and recommendations.

USAID will provide written comments on the draft report within 20 days of submission.

The draft Evaluation Report must follow the requirements below:

- The Contractor must provide a full description of the methodology to answer each evaluation question. A summary of the evaluation methodology must be included in the body of the report, with the full description provided as an annex. All tools used in conducting the evaluation such as questionnaires, checklists and discussion guides are required in an Annex in the report.

- Limitations to the evaluation must be disclosed in the report. The evaluation report must outline the sources of bias that might affect the evaluation and how the evaluation team addressed the biases, with particular attention to the limitation associated with the evaluation methodology such as selection bias and recall bias.

The evaluation report must also present the key constraints to carrying out the evaluation (e.g. lack of access to key information sources), and the effect of these constraints on the quality of the report.

- Evaluation findings must be presented as analyzed facts, evidence and data and not based on anecdotes, hearsay or the compilation of people's opinion. Findings must have sufficient evidence and documentation. Findings must be specific, concise and supported by strong quantitative or qualitative evidence. All sources of information need to be properly identified and listed in an Annex.
- Evaluation conclusions must be presented for each finding based on the evidence collected by the evaluation team. Conclusions must logically follow from the gathered data and findings.
- Recommendations need to be supported by a specific set of findings.

Recommendations must be action-oriented, practical and specific, with defined responsibility for the action. The Contractor shall take into consideration the overall economic and political context and the feasibility of change and innovation while framing recommendations.

V. FINAL EVALUATION REPORT

No later than 20 days after USAID provides comments on the draft report, the Contractor will submit a final report that incorporates the evaluation team responses to the Mission's comments and suggestions. The final report must be submitted in English and French, electronically. USAID has to either approve or reject the final report within 15 days after submission.

The final evaluation report must follow the standard USAID branding guidelines and the USAID How-to-Note on "Preparing Evaluation reports". The USAID Graphic Standards Manual is available at http://pdf.usaid.gov/pdf_docs/PNADB334.pdf. The report should not exceed 35 pages in length in its body, not including title page; table of contents; list of acronyms; references; usage of space for tables, graphs, charts, or pictures; and Appendixs.

The final evaluation report will comply with the requirement set forth in the Agency's 2011 Evaluation Policy and must include:

1) USAID branded cover page
2) Executive Summary (3-5 pages)
3) Evaluation Purpose and Evaluation Questions (1-2 pages)
4) Project Background (1-3 pages)
5) Methodologies, Analysis, and Limitations (1-3 pages)
6) Findings, Conclusions, and Recommendations (15 – 25 pages)

In addition, the final report must also include the list of acronyms, and at minimum, the following Appendixs:

- Evaluation statement of work
- Location and map of sites visited during the evaluation
- Detailed evaluation methods and limitations
- Data collection instruments

- Source of information such as list of key-informants, bibliography of document reviewed
- Disclosure of any conflicts of interest for all key personnel
- Statement of differences: if a difference arises in the interpretation of the results from the various stakeholders, the evaluation report will include a statement identifying any significant differences of opinion on the part of funders, implementers and/or members of the evaluation team.

No later than 10 days after the approval of the final report, the Contractor shall submit 40 hardcopies (15 in English and 25 in French) and two electronic copies of the USAID approved final report to USAID/Madagascar (1 in English and 1 in French). The electronic copies of the final report shall be in both PDF and MS Word format.

The Contractor will also send an electronic copy of the English version of the final report to the Development Experience Clearinghouse for archival within three months of the approval of the final report by USAID.

Data collected through this evaluation will become the property of USAID and should be made available to the public barring rare exception. The Contractor will submit to USAID (with the final report) all instruments and tools used in implementation of this evaluation and all collected data -- on appropriate storage devices, e.g., flash drive, compact discs, interview records, etc. The Contractor will provide the database in an electronic file, formatted in STATA, SPSS, and TAB delimited. The database must be organized and fully documented (codebook) for use by those not fully familiar with the project or the evaluation.

C.6 TEAM COMPOSITION AND LANGUAGE REQUIREMENTS

I. TEAM COMPOSITION

The evaluation team shall consist of three key personnel, including one team leader. The evaluation team shall be external consultants, outside USAID and outside the implementing partners.

The Team Leader must have a graduate degree in evaluation, economics, public health, medicine, international development, or similar disciplines; and at least ten years of experience in managing evaluation activities. The Team Leader should have a strong understanding of data collection and data analysis methodology; and should have proficiency in conducting quantitative or qualitative evaluation. The Team Leader is the primary point of contact between USAID and thus must have excellent communications skills. The Team Leader will ensure that the deliverables are completed in a timely manner and are responsive to the scope of work and USAID comments. The Team Leader will provide leadership for the team and coordinate activities.

The Senior Data Analyst must have a graduate degree in statistics, evaluation, economics, public health, international development, or similar disciplines; and at least five-year experience in quantitative data analysis and econometrics. The Senior Data Analyst must have experience in designing data entry form, collecting information, and setting up data quality control using tablet computers. The Senior Data Analyst must be able to travel and test the performance and functionality of the data collection system in remote areas of the sampled sites; and is responsible for the training of the enumerators and supervisors on the use of tablets for data collection and in organizing data transmission and data quality monitoring during the fieldwork. The Senior Data Analyst should be fluent in statistical software STATA or SPSS.

The Qualitative Research Specialist must have a graduate degree in sociology, anthropology, medicine, international development, policy management, or similar disciplines; and at least fiveyear experience in conducting key-informant interview, focus-group discussions; and analyzing qualitative information. The Qualitative Research Specialist must be able to travel in remote areas as required by the sampling process, by foot if needed. The Qualitative Research Specialist will support the evaluation team in answering the Evaluation Question No2.

II. LANGUAGE REQUIREMENTS

• The Team Leader must be proficient in spoken and written English to facilitate the discussion with USAID and to ensure the quality of the evaluation report.
• The three key personnel must be proficient in French. Most of the project key documents are in French and some implementing partners do not speak English.
• Because part of the evaluation will involve interviews and discussions with local key informants who may not be able to clearly express their idea in French, at least two of three key personnel must be proficient in Malagasy.

C.7 EVALUATION MANAGEMENT

LOGISTICS

The Contractor is responsible for hiring of all required staff, including local logisticians, supervisors and enumerators. USAID implementing partners will provide a list of intervention villages, key informants, and sub-grantees. However, the Contractor is responsible for arranging meetings as identified during the course of this evaluation. The Contractor is also responsible for arranging vehicle rental and drivers as needed for site visits; for procuring its own work/office space, computer, internet access, software, printing, and photocopying.

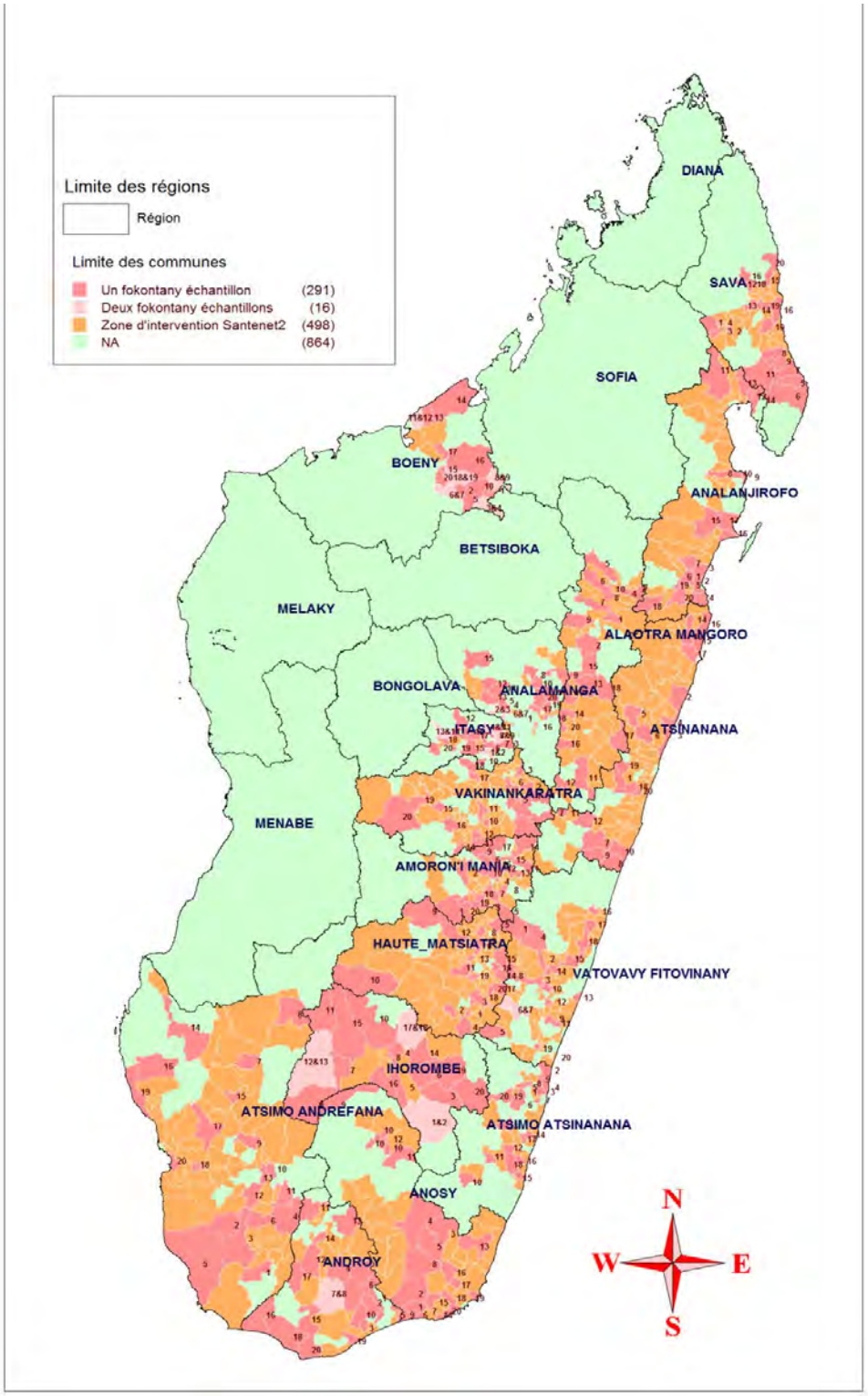
QUALITY CONTROL

USAID staff will participate as observers during the field implementation. The Contractor will present its own quality control process in the Methodology and Evaluation plan report. If necessary, the Contractor will request approval of the data collection tools by the Ministry of Health ethics committee.

C.8 PERFORMANCE STANDARDS

The Contractor's performance will be measured based on the followings:
• Schedule: timeliness of response
• Technical quality of work
• Adherence to the approved Methodology and Evaluation Plan
• Business relations
• Management of key personnel
•Program/Other management [The final Evaluation Statement of Work that guided the evaluation team should be included as an annex.]

ANNEX II: MAP OF LOCALIZATION OF THE SAMPLED FOKONTANY



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