

Medical Care Development International

1742 R Street NW, Washington, DC 20009 * USA
Telephone: (202) 462-1920; Fax: (202) 265-4078
Internet Electronic Mail: MCDI@MCD.ORG
World Wide Web URL: WWW.MCD.ORG

BETIOKY CHILD SURVIVAL PROJECT

FIRST ANNUAL REPORT

(OCTOBER 1, 1998 – SEPTEMBER 30, 1999)



Cooperative Agreement No. FAO-A-00-98-00027-00
Submission Date: November 18, 1999

The staff of Medical Care Development International wish to thank BHR/PVC, CSTS Project, USAID Mission personnel as well as MOH staff for their counsel and support during Fiscal Year 1999.

TABLE OF CONTENTS

1- EXECUTIVE SUMMARY	4
2- BACKGROUND INFORMATION AND OVERVIEW OF PLANNED ACTIVITIES.....	5
2.1 REORIENTATION OF MCDI'S STRATEGY	5
2.2 PROJECT CONTEXT	6
2.3 PLANNED ACTIVITIES/REVISED PLAN	7
3- RESULTS AND COMMENTS	13
3.1 BIRTH SPACING	13
3.2 EPI	20
3.3 DIARRHEA CONTROL AND BREASTFEEDING PROMOTION	28
3.4 IMCI	32
4. IEC ACTIVITIES, MOBILIZATION AND COMMUNITY-BASED APPROACH.....	33
5. PARTNERSHIPS	40
6. CAPACITY BUILDING (HOME & FIELD OFFICES)	41
7. OTHER.....	42
7.1 BICYCLE COST-SHARING PLAN	42
7.2 CREDIT-INSURANCE PLAN.....	42
7.3 NON-MALARIAL FEVERS RESEARCH IN COLLABORATION WITH YALE MEDICAL SCHOOL	44
8. FISCAL YEAR 2000 WORKPLAN	46

Acronyms and Abbreviations

BSCSP	Betioky Sud Child Survival Project
BASICS	Basic Support for Institutionalizing Child Survival Project
BHR/PVC	Bureau for Humanitarian Response/Private Voluntary Cooperation
CBHWs	Community-Based Health Workers
CDD	Control of Diarrheal Diseases
CHV	Community Health Volunteers
CISASE	<i>Comité Intersectoriel d'Appui à la Survie de l'Enfant</i> (Intersectoral Committee to Support Child Survival)
CISCO	Betioky Sud Education Services
CS	Child Survival
CSB	<i>Centre de Santé de Base</i> (Community Health Center)
CVA	<i>Comité Villageois d'Animation</i> (Social Mobilization Village Committee)
DIP	Detailed Implementation Plan
DIRDS	<i>Direction Inter-Régionale pour le Développement Sanitaire</i> (Inter-Regional Office for Health Development)
EBF	Exclusive Breastfeeding
EMAD	District Health Management Team
EPI	Expanded Program of Immunization
FID	<i>Fonds d'Intervention pour le Développement</i> (Development Intervention Fund, The World Bank)
GMAAD	<i>Groupe Mahafaly pour l'Alphabétisation des Adultes et au Développement des Paysans</i> (The Mahafaly Group for Rural Development and Literacy)
HIS	Health Information System
HMIS	Health Management Information System
IEC	Information, Education, and Communication
IMCI	Integrated Management of Childhood illnesses
IRH	Integrated Reproductive Health
KPC	Knowledge, Practice, and Coverage
MCDI	Medical Care Development International
MIS	Management Information System
MOE	Ministry of Education
MOH	Ministry of Health
MSF	<i>Médecins Sans Frontière</i> (Doctors without Borders)
NGO	Non-Governmental Organization
PVO	Private Voluntary Organization
MAR	Monthly Activity Report
SRSR	<i>Service Régional de la Santé de la Reproduction</i> (Regional Service for Reproductive Health)
SSD	<i>Secteur Sanitaire de District</i> (District Health Division)
UERP	Pedagogical Study & Research Unit of the Ministry of National Education
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VEMIMA	<i>Vehivevy Miara Mandroso</i> (Women in Development)

1- Executive Summary

In June 1998, USAID/BHR/PVC approved a four-year (October 1998 - September 2002) Child Survival Project in Betioky Sud, Madagascar. This funding is a follow-on to a two-year Planning Grant awarded to Medical Care Development International (MCDI) in 1996.

MCDI's mandate for this project is to reduce morbidity and mortality among children under five years, and among women of reproductive age in the project area, through specific child survival interventions (Expanded Program of Immunization (EPI), Control of Diarrheal Diseases (CDD), Exclusive Breastfeeding Promotion (EBF), and Birth Spacing) according to strategies and approaches described in the Detailed Implementation Plan approved by USAID/BHR/PVC in June 1998.

This report discusses various activities that have been carried out by the MCDI's Betioky Sud Child Survival Project (BSCSP) during Fiscal Year 1999 (October 1998 – September 1999), and the progress made during the first year of implementation.

MCDI submitted a DIP in lieu of an application for the four-year project, and the DIP was reviewed in June 1998. Changes made to the program in response to the DIP review were fully discussed in the FY 1998 Annual Report (Second Year Report of the Planning Grant), as well as the report by Linda Morales, the consultant who assisted the Program Manager in revising the project. Various changes made in response to the DIP review are discussed in relevant sections throughout the report.

In general terms, the BSCSP experienced substantial progress with regard to family planning, diarrheal disease control and breastfeeding. However, EPI interventions encountered some difficulties due to deficient health care delivery and overall organization of the MOH program. In addition, the Credit-Insurance Plan was reviewed and implemented with management committees (trained and operational), formal association established, a monitoring system developed and an acceptable contribution level. Given the pre-determined timeline, the BSCSP was able to accomplish the activities scheduled for FY 99.

2- Background Information and Overview of Planned Activities

2.1 Reorientation of MCDI's Strategy

Revised DIP strategies are discussed in the document "Recommendations on the Findings from the Technical Review of the Detailed Implementation Plan for MCDI's Betioky Sud Child Survival Project" submitted to BHR/PVC in September 1998. A brief overview is presented below to provide an appreciation for the historical context of the Annual Report.

Training: As discussed in the DIP, MCDI proposed to improve illness management capacity of health workers by training them in project intervention areas. Another approach discussed was the possible reorientation of the program toward IMCI as soon as it was implemented by the Government of Madagascar (GOM) and the first implementation results were conclusive.

Since the DIP, significant efforts have been made by the GOM to introduce IMCI. One of the GOM's objectives is to institutionalize this approach at all of Madagascar's health facilities. Implementation was initiated with the goal to train all public health care providers before the year 2000. For the Toliara region, 100 health workers were trained at the end of September 1999 and three sessions are planned for the end of the year (1999).

BSCSP decided that it was not appropriate to train health workers on the specific CS interventions proposed in the DIP, but to focus instead on the IMCI approach. This does not apply to EPI, whose national strategy has just undergone a general review. In addition, health workers in Betioky received training on diarrhea and exclusive breastfeeding during the Planning Grant period.

BSCSP was not able to organize any refresher/in-service training sessions as planned for Fiscal Year 1999 due to the frequent closing of health facilities to allow health workers to attend training sessions on various child survival interventions (family planning, integrated reproductive health, family planning IEC, training of trainers of Community Based Health Workers (ASBC - Agents de Service à Base Communautaire). In addition, SSD leaders were reluctant to embrace the idea of convening the workers in Betioky Sud six times a year because of the rate of absenteeism. The SSD recommended training on a quarterly basis to make up for supervision visits made by the BSCSP Team and associated SSD counterparts compensated for this revised scheduled.

FP Training: In response to the suggestions of the DIP technical reviewers, BSCSP included all the Betioky Sud health workers in the training sessions, without distinguishing between people from the north and the south of Onilahy¹. BSCSP also followed the recommendations on the duration of training in clinical FP. In the beginning, BSCSP offered to reduce the FP training curriculum from 3 to 5 days but the reviewers thought it was too short if the national curriculum was 15 days of theory and 15 days of practice. BSCSP agreed to train the health workers on FP using this national curriculum lasting 30 days.

¹ Onilahy : River that divides the Betioky Sud SSD in two : an area South of the river and an area North of the Onilahy river. The project area includes the area South of the Onilahy river.

The Health Information System (HIS): The MOH successfully implemented a new Health Information System at the end of 1998. The MOH is currently in the process of testing the HIS and is planning to review the system in June 2000. Since the MOH has introduced an HIS, BSCSP cancelled its proposal to develop an HIS for the SSD in order to avoid duplication.

2.2 Project Context

Fiscal year 1999 can be divided in two time periods:

(1) From October 1998 until June 1999: A period of "paralysis" during which no decisions were made at the SSD, apropos health care provision, organization and planning. This paralysis was due to:

- the long and repeated absence of health workers as a result of training sessions. On average, each health worker was away 21 weeks. This means that every month a center would be closed for two weeks or a total of 5 months. This phenomenon (mainly due to IMCI training) does not affect the health centers with two or more health workers;
- the frequent absence of the Médecin Inspecteur combined with the on-site temporary managers' lack of decision-making ability;
- the lack of strategic planning for SSD activities leading to confusion regarding MOH priorities;
- health workers' transfers and reassignments to new posts based on ministerial instructions.

(2) From July 1999 to present: District "re-launch" period during which the SSD management clearly improved the program's management. This is the result of:

- the arrival of a new, experienced Médecin Inspecteur with a broader idea of health development and partnering;
- reorganization of basic activities at the CSB level;
- strategic planning of activities (e.g. District health plan);
- more effective approach to collaboration between the SSD and MCDI partners.

Operational Constraints

At the end of the Fiscal Year 1998, the project's only car broke down. MCDI ordered a new car from UNICEF, and delivery was expected in November. Communication has been difficult, but BSCSP recently obtained a long wave radio with a data transfer system. The system installed became operational in early November.

Finally, during the second quarter of this year, BSCSP experienced various constraints due to housing and office space leasing problems. BSCSP initiated the rehabilitation of several buildings, during which period, the personnel worked from their respective homes and daily information-sharing meetings would take place at least once a day in a Betioky hospital room. This inopportune situation seriously disrupted the BSCSP's field operations.

2.3 Planned Activities/Revised Plan

The following tables compare outputs during the first year of implementation to 2002 inputs established in the Detailed Implementation Plan for the overall project. Please note that italicized major inputs reflect additions and/or modifications to the revised Detailed Implementation Plan.

Immunizations

Major inputs by 2002	Major outputs During FY-99	Observations
Upgrade the cold chain and enhance its functionality in all 13 health facilities, in collaboration with MOH and UNICEF.	Cold chain upgraded and operational in 9 out of 11 health facilities in the project area.	The modifications in the project area reduce the number of health facilities to 11.
Provide initial training to 18 health facility staff and ongoing in-service training and supervision on technical protocols for immunization, vaccine management, record keeping, avoiding missed opportunities, and maintenance of the cold chain (using the EPI Training Module).	25 health facility staff trained and receiving ongoing in-service training and supervision on technical protocols for immunization and vaccine management, record keeping, avoiding missed opportunities, and maintaining the cold chain.	Recommendations from the DIP review to provide training to all health facility staff in the SSD rather than exclusively to health facility staff in the project area has increased their number to 25.
Provide training to 142 CHVs on EPI promotion, village monitoring, and follow-up of defaulters.	52 CHVs trained on EPI promotion, village monitoring, and follow-up of defaulters. A mobilization and EPI guide was developed for CHVs. 43 CHVs were supervised.	Given the limited capacity of vaccination services provided by health facilities, BSCSP did not invest much effort in promoting this intervention at the community level during FY-99.
Establish a referral system between CHVs and health facility personnel including a double entry system of vaccine records on EPI cards and community lists that will, inter alia, provide follow-up for defaulters.	Not implemented	<u>Other outputs:</u> Provide support to the implementation of the third year of "National Immunization Days" which have the objective of eradicating poliomyelitis in Madagascar.
Adapt culturally appropriate strategies for social mobilization and IEC in coordination with the IEC Task Force, VEMIMA and GMAAD.	Culturally appropriate strategies for social mobilization and IEC established.	20 teachers trained on child-to-child approach. 6 Betioky education officers trained on TOT of child-to-child approach.
Enhance district supervision capabilities to permit frequent follow-up and coaching to improve the quality of immunization services.	SSD supervision capabilities enhanced through logistics strengthening (3 motorcycles repaired) and planning assistance (supervision matrix and supervision plan).	

Diarrhea Control

Major inputs by 2002	Major outputs During FY-99	Observations
<p>Ensure supply of ORS sachets to all 13 health facilities.</p> <p>In collaboration with UNICEF and MOH, arrange for limited supply of parenteral electrolyte solution for severe dehydration cases to health facilities.</p> <p>Conduct training for 18 health facility staff on comprehensive diarrhea case management including dysentery and persistent diarrhea per MOH protocols</p> <p>Conduct training for 142 CHVs on MOH protocols for home management of diarrheal disease, and for assessment and referral of more severe cases including dysentery and persistent diarrhea.</p> <p>Promote development of village support groups to share successful experiences and techniques regarding use of home based fluids and ORS, promote breastfeeding, handwashing, hygiene, and sanitary disposal of wastes.</p> <p>Provide ORS sachets to CHVs for use under MOH's protocol for Plan B and encourage sale at a nominal and subsidized price (pro-Child Survival) in coordination with SSD through EMAD.</p>	<p>11 health facilities adequately supplied with ORS sachets, parenteral electrolyte solutions, and essential drugs under an operational cost recovery system.</p> <p>Replaced with IMCI training.</p> <ul style="list-style-type: none"> ▪ Training material on home management of diarrheal disease adapted for CHVs. ▪ 151 CHVs trained on home management of diarrheal disease promotion, referral assessments, diarrheal prevention and cholera. <p>3 village support groups established and operational.</p> <p>Scheduled for FY 2000.</p>	<p>The modification in the project area has reduced the number of health facilities to 11.</p> <p>BSCSP made adjustments to its approach regarding training by providing IMCI training to health facility staff instead of training on vertical programs.</p>

Major inputs by 2002	Major outputs During FY-99	Observations
<p>Adapt and disseminate culturally appropriate IEC materials including graphic media for non-literates, traditional theater, singing, etc. regarding danger signs of dehydration and quality home case management, in collaboration with IEC Task Force, Child to Child Program and Child Survival Coordination Committee.</p> <p>Strengthen training of 11 elementary and 6 junior and senior high school teachers in three MOH/MOE pedagogical guide for CDD/ARI and new BASICS Child to Child Program to address diarrhea case management, use of home fluids, sanitary disposal of wastes, handwashing and hygiene. Encourage class projects to support intervention activities including school fairs, contests, etc. in collaboration with the BASICS Child to Child Program.</p> <p>Explore introduction of solar cookers with VEMIMA and GMAAD as a low cost means for households to pasteurize drinking water.</p> <p><i>Support the introduction of IMCI in health facilities of the project area by providing support to initial training, refresher training, and the supervision of health facility staff.</i></p>	<ul style="list-style-type: none"> ▪ 12 traditional theater scenarios available and distributed. ▪ 200 counseling card sets distributed to CHVs, teachers, local associations, health facility staff, and community health agents/workers. ▪ 100 copies of information /message guide distributed. <ul style="list-style-type: none"> ▪ A programming workshop to prepare for the introduction of the Child to Child approach held. ▪ 20 teachers trained on the Child to Child approach. ▪ 6 Betioky education officers trained on TOT of Child to Child approach. <p>Scheduled for FY 2001.</p> <ul style="list-style-type: none"> ▪ 4 health facility staff trained in IMCI. ▪ A UNICEF/MCDI collaboration agreement signed to support the introduction of IMCI in Betioky Sud. 	<p>IEC graphic materials elaborated by the IEC Task Force in the context of harmonizing messages, as well as those developed by other CS partners (John Snow Inc., Care Madagascar) appear to be well adapted for the Betioky Sud SSD. Thus, BSCSP has only duplicated and diffused those materials.</p> <p>Child to Child training was conducted in early FY 2000 (October 1999).</p>

Breastfeeding Promotion

Major inputs By 2002	Major outputs During FY-99	Observations
<p>Conduct training for 142 CHVs in promotion and support of exclusive breastfeeding, weaning, etc.</p> <p>Conduct training for 20 health facility staff on benefits of exclusive breastfeeding, counseling practices, use of LAM and appropriate complementary foods.</p>	<p>151 CHVs trained on promotion and support of exclusive breastfeeding, weaning, etc.</p> <p>20 health facility staff trained on benefits of exclusive breastfeeding, counseling practices, use of LAM and appropriate complementary foods.</p>	<p>This activity was implemented at the end of the Planning Grant.</p>
<p>Orient health facility staff about Baby Friendly Hospital Initiative for the District Hospital and UNICEF and MOH protocols.</p> <p>Adapt and/or develop appropriate IEC materials for use in public places (e.g., health facilities, pharmacies, retail stores, etc.) in coordination with IEC Task Force and local NGOs.</p> <p>Encourage through 142 project CHVs village formation of maternal support groups with contests, skits, sociodramas for participatory educational campaign breastfeeding promotion.</p> <p>Conduct outreach to traditional healers, <i>matrones</i>, and Christian pastors to disseminate IEC messages supporting breastfeeding promotion.</p> <p>Monitor the quality and effectiveness of breastfeeding promotion activities at health facilities. Monitor the quality and effectiveness of IEC.</p>	<p>Scheduled for FY 2000.</p> <ul style="list-style-type: none"> ▪ 12 traditional theater scenarios available and distributed. ▪ 200 counseling card sets distributed to CHVs, teachers, local associations, health facility staff, and community health agents/workers. ▪ 100 copies of information / message guide distributed. <p>3 village support groups established and operational.</p> <p>Scheduled for FY 2000.</p> <p>Assessment of quality and effectiveness of IEC campaigns through exit interviews, FGDs scheduled for 1st quarter 2000.</p>	<p>IEC graphic materials elaborated by the IEC Task Force in the context of harmonizing messages, as well as those developed by other CS partners (John Snow Inc., Care Madagascar) appear to be well adapted for the Betioky Sud SSD. Thus, BSCSP has only duplicated and diffused those materials.</p>

Birth Spacing

Major inputs by 2002	Major outputs During FY-99	Observations
<p><i>Provide support to the Integrated Reproductive Health Project in SSD Betioky Sud in collaboration with UNFPA and DIRDS.</i></p>	<ul style="list-style-type: none"> ▪ Collaborative agreement signed between MCDI and DIRDS. ▪ Integrated Reproductive Health Program operational in 20 health facilities and 25 health facility staff trained. 	
<p>Ensure regular and adequate supply of contraceptives and appropriate method mix for 13 health facilities with the collaboration of UNFPA and DIRDS.</p> <p><i>Enhance the coverage of family planning services by initiating the service in 12 health facilities not currently providing them.</i></p> <p>Conduct training for 16 health facility staff (10 in the project zone and 6 outside, but within Betioky Sud) not currently trained in birth spacing service delivery to emphasize counseling, communication and promotion skills.</p> <p>Conduct training for 142 CHVs in birth spacing promotion, including LAM, collateral benefits of STI and HIV prevention with condom use, innovative IEC and social marketing activities.</p> <p>Involve 142 CHVs in identification of potential new acceptors.</p> <p>Target prevention of adolescent pregnancies through counseling and culturally appropriate IEC activities.</p>	<p>20 health facilities stocked with regular and adequate supply of contraceptives and appropriate method mix.</p> <p>10 health facilities are currently providing family planning services.</p> <ul style="list-style-type: none"> ▪ 30 health facility staff trained in clinical family planning. ▪ 1 supervisor trained in clinical family planning. ▪ 11 health facility staff received TOT training of community-based agents. <p>32 CHVs trained in birth spacing promotion including LAM and innovative IEC and social marketing activities.</p> <p>32 CHVs involved in potential new acceptor identification.</p> <p>Scheduled for a later date.</p>	<p>One of the recommendations of the DIP review was to extend training to health facility staff outside the project area.</p>

Major inputs by 2002	Major outputs During FY-99	Observations
<p>Develop and implement low cost-effective incentives for health staff and CHVs to promote birth spacing methods through small prizes, raffles, and field trips to model facilities in Madagascar.</p> <p>Conduct strategic planning workshops for key MOH staff at district and regional levels to increase support for birth spacing and provide support in forecasting, logistics, and maintenance of adequate supplies.</p> <p><i>Develop community-based family planning services, counseling and monitoring.</i></p> <p>Explore opportunities for expansion of private services through "Médecin de Brousse".</p>	<ul style="list-style-type: none"> ▪ 1 study visit conducted in Fianarantsoa II with 11 CHVs, 5 health facility staff and 3 individuals from Betioky Sud Technical Services. ▪ 1 community festival organized. ▪ 2 volunteer associations established and supported in income-generating activities. ▪ 138 T-shirts distributed to volunteers and other partners. <p>To be scheduled at a later date.</p> <ul style="list-style-type: none"> ▪ 10 out of 11 health zones providing community-based family planning services. ▪ 77 community-based health agents trained and operational for the provision of community distribution of contraceptives, FP promotion, drugs management. 	<p>In accordance with the suggestions provided during the DIP review, this activity was launch at the start of the project rather than the second year.</p> <p>Private providers providing services through their own initiative.</p>

3- Results and Comments

3.1 Birth Spacing

During Fiscal Year 1999, the project dedicated significant efforts to birth spacing activities and surpassed the goal stated at the beginning of the year. The project's approach to this intervention is to improve access to and quality of family planning services in collaboration with UNFPA and other key workers of the SSD and the Toliara area. The Integrated Reproductive Health (IRH) program financed by UNFPA in Betioky comprises a FP component, and the agreement between MCDI and the Service Regional de la Santé de la Reproduction (SRSR-Regional Service for Reproductive Health) of Toliara supported the IRH program. These factors contributed to some encouraging results. In short, this agreement, ratified in February 1999, planned for BSCSP to be responsible for training health workers in clinical FP, in FP IEC, for Training of Trainers of the Community-Based Health Workers (CBHWs), for the implementation and training of CBHWs, and for the SRSR to be responsible for coordinating the supply of equipment and contraceptives to health facilities. As suggested during the DIP review, BSCSP extended its training activities to the entire district. Thanks to the coordination with the UNFPA's IRH project, resources were pulled together for the health workers' training sessions and for other components of reproductive health training.

As a result of the relatively low coverage of FP services for the Betioky Sud SSD (5 FP functional sites out of 19 health facilities for the whole district and 2 out of 11 in the project area), efforts were made to extend the number of FP sites and to support FP promotion at the community level.

a- Results

Creating additional FP sites

In addition to the 5 health facilities already providing birth spacing services, 13 out of 14 health facilities in the Betioky Sud District (which were still non-functional at the start of the project) began providing FP services in 1999. Eight of these health facilities are located in the BSCSP project area. There are, therefore, 10 functional health facilities currently providing birth spacing services in the project area, bringing the coverage rate to 90% for facilities in the project area and 95% for the whole district. This is the result of collaborative work between BSCSP (supporting training), UNFPA (supporting the provision of material and contraceptives to health facilities), and Toliara SRSR FP (coordinating the activities). These health facilities currently provide several types of birth spacing services, except surgical contraception. They have an adequate supply of FP materials and contraceptives, and have at least one well-trained service provider at each facility. The SSD will continue to supply these sites with contraceptives and will ultimately be responsible for their supervision. The FP service did not open in one of the health facilities (Lazarivo), because the health worker it had recently hired had not been trained in clinical FP. There were no stock shortages to report since their opening (none of the Betioky Sud SSD facilities offer the implant method Norplant).

Table 3-A : Current situation in the project area

Health Facility	Date of FP Site Opening	Number of Facility Staff	Number of Trained Staff	Regular Users (Jan. - June 99)	Remarks
Ambatofotsy	August 1999	01	01	NA	
Ambatry	Febr 1999	02	02	14	
Ankazomanga	August 1999	01	01	NA	
Antohabato	May 1999	01	01	35	
Beavoaha	Dec. 1998	01	01	107	
Betioky Sud	Former site	05	05	268	No report received since February 1999
Maroarivo	Sept. 1999	01	01	NA	
Sakamasay	August 1999	01	01	NA	
Soamanonga	Former site	02	02	243	January report not received
Soaserana	No site	NA	NA	NA	

Source : CSB Monthly Activity Report

NA = Not applicable

In June 1999, the contraceptive prevalence rate for the whole SSD (all health facilities irrespective of FP service provision) was 18.7% compared to 17% in the BSCSP area project. The rate of contraceptive prevalence is 23.7% in all the district health centers that provide FP services compared to 21.7 % in the BSCSP area project. This is due to the following reasons: (1) since February 1999, the Betioky Sud CSB2 never provided its Monthly Activity Reports (MAR); (2) the number of operational FP facilities that have provided a June 1999 MAR is 4 for the project area (Ambatry, Beavoaha, Betioky, Soamanonga) and 7 for the remaining areas of the district (Belamonty, Tongobory, Beza, Mansoa, Vatolatsara, Andranomangatsiaka, and Saloba).

Deployment of Community Based Health Workers (CBHW)

BSCSP deployed functional CBHWs during Fiscal Year 1999 to 10 of the 11 health facilities located in its project area. In total, 77 CBHWs were dispatched to these 10 health facilities, 7 to 8 CBHWs per facility on average. In response to the DIP reviewers' suggestions in June 1998, BSCSP began promoting contraceptive distribution at the community level at the project start-up phase, instead of waiting the end of the second year as indicated in the DIP². The CBHWs are volunteers nominated by the community and are selected according to the following criteria:

- (1) when possible women in favor of FP, or men convinced of the importance of birth spacing,
- (2) individuals who have completed primary school education,
- (3) motivated, dynamic and tactful individuals,
- (4) individuals who are credible and influential,
- (5) if possible, individuals are selected from members of the Cellule Villageoise d'Animation (CVA) or the health management committee.

² MCD International. Detailed Implementation Plan. DC. Dec. 1997.

The tasks of the CBHWs are the following:

- (1) to promote birth spacing and the use of birth spacing services by the population,
- (2) to manage a limited stock of contraceptive drugs including the stock of Lo-Femenal, Ovrette, Conceptrol (spermicide) and condoms for community-based distribution.
- (3) to provide limited family planning services: counseling, distribution and method of lactational amenorrhea (LAM). In the early phases of the program, the SRSR, the SSD and BSCSP agreed that the CBHWs should not promote the natural method.
- (4) to advise people and convince them of the advantages of birth spacing and manage the rumors unfavorable to the use of family planning,
- (5) to follow family planning regular users and find people who want to use FP services (active research of potential users),
- (6) to promote health in general and especially when it is related to maternal and infant health.

With the health workers on site, BSCSP trained these 80 CBHWs on the referral and prescription processes in FP, the use of contraceptive Kits (including warnings, side effects, doses, etc), the target population for birth spacing, communication in FP and rumor management, messages about birth spacing and reproductive health, contraceptive management and, CBHWs' tasks and responsibilities. A training module in Malagasy, based on the UNFPA module, was created and adapted by BSCSP for this training session. The initial training session lasted 3 days. Training sessions were manned by the BSCSP Training Officer and CBHWs who had already been trained by the BSCSP and the SRSR Toliara in collaboration with UNFPA. However, when the CBHWs were evaluated at the end of the training, their grades were below average (9/20)³, an indication that they were unable to appropriately manage their respective tasks and responsibilities. As a result, close and frequent follow-ups were recommended to improve their skills.

The SSD provides contraceptives to CBHWs through the health facilities upon receipt of a monthly order form (pro-forma invoice). The SSD then sends its report to these health facilities in order to enable them prepare their respective monthly activities report. The system is very reliable, and except for the CBHWs of the Antohabato health zone, there have not been any shortages in the supply of contraceptives. The shortage in Antohabato was due to an under-estimation by CBHWs of the monthly use of contraceptives.

Contraceptives distributed by CBHWs are priced at 500 Fmg for one month of protection (approximately \$US 0.08). This price is also adhered to by the MOH at the CSB level. 50% of the revenues go to the health facilities for the cost recovery system and the 50% remaining go to CBHWs as incentives. The BSCSP is currently exploring other motivation schemes for CBHWs (See section 5).

A follow-up of CBHWs is conducted every month by the health facility staff and supported on a quarterly basis by the BSCSP/SSD team. The goal of this follow-up is to strengthen CBHWs' skills and capability to resolve their problems in the field. At project start-up, and pursuant to several follow-up visits, BSCSP made the following observations: management tools were not mastered, CBHWs had a difficult time convincing people and the follow-up visits were too irregular. To address these problems, BSCSP agreed to provide quarterly retraining sessions to CBHWs in early Fiscal Year 2000 and to enhance their management

³ MCD International. CBHW Training Report. Betioky Sud - Madagascar. Sept. 1999.

skills (we will simplify the management tools and will develop a flow chart for CBHWs). In addition, since there seemed to be a lack of transportation means to conduct follow-up visits, BSCSP will provide bicycles for health facility staff who agreed to share their cost (See Section entitled "Other").

Table 3-B : CBHWs Activities*

Health Zone	Date of Opening CBHW	Gender		Average Level of Education	Training Date	Clients of CBHW Monitored (End of Sept. 99)
		F	M			
Betioky Sud	June 99	4	2	3 rd	May 99	5 clients from 3 CBHWs
Beavoaha	August 99	6	-	8 th	May 99	0 from 3 CBHWs
<i>Antohabato</i>	<i>June 99</i>	6	-	3 rd	<i>May 99</i>	<i>6 from 4 CBHWs</i>
Ambatry	June 99	6	5	3 rd	June 99	13 from 6 CBHWs
<i>Sakamasay</i>	<i>June 99</i>	3	-	8 th	<i>June 99</i>	<i>12 from 3 CBHWs</i>
Ambatofotsy	July 99	-	4	10 th	June 99	2 from 2 CBHWs
<i>Tongobory</i>	<i>July 99</i>	12	-	3 rd	<i>July 99</i>	<i>12 from 4 CBHWs</i>
<i>Soamanonga</i>	<i>August 99</i>	6	-	?	<i>July 99</i>	<i>79 from 3 CBHWs</i>
Ankazomanga	October 99	5	3	?	July 99	NA
<i>Lazarivo</i>	<i>August 99</i>	1	4	?	<i>May 99</i>	<i>40 from 2 CBHWs</i>
Maroarivo	August 99	5	2	7 th	May 99	4 from 3 CBHWs

Sources: CBHW Supervision Report. MCDI Sept 99.

Health Worker Training

Health worker training in clinical FP: 30 Betioky Sud Health facility staff were trained in clinical FP thanks to the collaboration between MCDI, UNFPA and SRSR Toliara during Fiscal Year 1999. The number of health care providers trained in clinical FP therefore jumped from **18%** (07/39) to **95%** (37/39). The initial training lasted 30 days (11 UNFPA/MOH modules) with 15 days of theory and 15 days of clinical practice in Toliara. BSCSP's initial proposition to reduce the duration of the training from 3 to 5 days was not accepted. In accordance with the DIP reviewers' recommendation, health workers were

* CBHWs in Antanosy (in italics) have more clients than those in Mahafaly due to the fact that Mahafaly residents are pronatalists and CBHWs in Antanosy have expressed more enthusiasm and motivation in undertaking their respective tasks.

trained in groups of ten. A training session took place in October 1998, another in November 1998 and the last in June 1999.

The training focused on FP clinical issues and included the following components: (1) Carrying out a FP consultation and IEC concepts, (2) oral contraceptives, (3) injectable contraceptives, (4) IUD, (5) barrier methods, (6) breastfeeding, (7) natural FP and infertility management, (8) voluntary surgical contraception, (9) implant, (10) infection prevention in FP, maternal and infant health centers and STI management and (11) FP service management and organization. Trainers included BSCSP, UNFPA and SRSR Toliara. Diplomas were approved by the MOH.

The training goals were to give health workers the capacity to: (1) ensure the provision of integrated family planning services at health facilities (2) prescribe a FP method compatible with the choice and health of users, (3) ensure follow-up for all users, (4) take care of sterility cases, (5) manage contraceptives and relevant medications as well as FP center supplies, (6) mobilize the community on the advantages of FP, (7) carry out a self-evaluation of FP service providers in the health zone.

The evaluation results of the training indicated a marked improvement in average testing grade (from 6/20 at pre-test to 13/20 at post-test⁴). It is, therefore, BSCSP's general observation that all participants enhanced their ability to provide integrated FP services in their respective health zones.

After being trained, health facility staff received materials, contraceptives and management tools to ensure proper FP delivery service.

The main constraint of this activity is that health facility staffs are away from their respective health facility for too long. Therefore, health facilities remain closed and other types of activities tend to suffer. Since a given number of patients was required to proceed with training sessions, these sessions had to be conducted in Toliara, where the participant/patient ratio was acceptable. Hence, nothing could be done to redress health facility closings.

IEC-FP Health Facility Staff Training: Launched ten years ago, the FP development project is currently running smoothly. The multiplication of FP sites and the opening of Community Based Services (CBS) partly resolved the access problem to FP services. However, the rate of contraceptive prevalence was still low at the FP sites compared to the estimated community needs and to available means of supporting FP activities. The minimal impact of IEC/FP activities was one of the causes. This could be explained by personnel competence levels, the ineffective/inefficient use and/or lack of FP materials/supply resulting from the fundamental misuse of FP protocols, and the community's difficulty in understanding the messages.

In order to improve the quality of FP services in the recently opened FP sites, BSCSP, in collaboration with UNFPA and the SRSR Toliara, trained 13 health workers in IEC-FP. The number of healthcare providers in Betioky Sud SSD trained in IEC-FP was 22, dispatched across 19 health facilities. Except for one health facility (Lazarivo, where the health worker

⁴ Toliara Regional Integrated Reproductive Health Services – MOH. Clinical FP Training Report of Betioky Sud Health Facility Staff. Internal Report. Toliara. June 1999.

had been recently assigned), all these health centers have at least one employee trained in IEC-FP.

The training goal was to develop the capability of service providers to lead FP counseling, home visits and public education activities.

The 10-day training with a practicum in Toliara, was organized according to the UNFPA-MOH training guide which was divided into 10 modules: opening remarks and a training overview, family planning, communication capability, contraceptive methods and rumors about FP, patients' rights and FP counseling, facilitating group discussions, collaboration with community partners, hands-on sessions and IEC activity reports, action plan, and training evaluation.

Pre-test and post-test scores ranged from 1 to 29 points, which indicated a marked improvement in participants' knowledge of FP. The average improvement was 9.8 points (a pre-test score of 12 and a post-test score of 21.8). In fact, 10 out of the 13 participants obtained grades higher than the average score⁵.

Training of Trainers of CBHWs: BSCSP, in collaboration with UNFPA and the SRSR Toliara, trained 11 Heads of Post (Chefs de Poste) in its project area as CBHW trainers using the MOH module. The 5-day training session included a practicum in Toliara.

The objectives of the training were to give health facility staff the ability to train CBHWs in their respective zones on (1) FP services provision, (2) FP promotion, (3) message dissemination on family health, diarrhea, prenatal consultations, vaccinations, and STI/AIDS; (4) ways of supervising community-based services and managing a community-based program.

The module comprised six sessions: the role and activities of CBHWs, the concept of family planning, reproductive anatomy and physiology, contraceptive methods, communication techniques, and management.

The training evaluation showed that each participant improved his/her knowledge during the training sessions. The average pre-test and post-test grade ranged from 5/10 to 8/10, showing an increase of 3 points.

Training of a Clinical Practicum Supervisor: In early Fiscal Year 1999, BSCSP sent a midwife from Betioky Atsimo CSB2 to be trained as a clinical supervisor of FP services. The objective was for the SSD to have a competent individual on staff to strengthen the health workers' capacity to provide FP services. This training was informal and was carried out on an individual basis by the SRSR in Toliara. This 5-day training was part of the collaboration between BSCSP and the SRSR Toliara. The training focused on the practical aspects of FP service delivery.

Training of Health Volunteers and Community Partners

Thirty-two (32) health volunteers were trained in birth spacing promotion. They were dispatched in the following health zones: 5 volunteers in Beavoha, 6 in Antohabato, 11 in

⁵ Toliara Integrated Reproductive Health Services – MOH. IEC-FP Training Report for Betioky Sud Health Facility Staff. Internal Report. Toliara. April 1999.

Tongobory, 5 in Soamanonga and 5 in Ankazomanga. This training focused on birth spacing health messages and rumor control. The training was carried out locally by the District IEC Trainer and the BSCSP Health Educator with support from the VEMIMA association as the facilitator.

Given the population's pronatalist tendency and men's position with regard to reproductive decision-making processes, the volunteer training focused on mobilizing fathers to request FP services, the benefits of FP and the variety of methods from which couples can choose. IEC materials used by the volunteers were produced by the MOH/UNFPA. The volunteers were told about the sources of FP services (Health facilities and CBHWs) to which they could refer individuals with interests in using FP services. Details on volunteers' activities are provided in Section 5.

BSCSP has not yet explored the possible collaboration with traditional birth attendants (matrones) and traditional healers to support IEC activities.

Table 3-C : Summary of Birth Spacing Activities

Year	FP Service Coverage	Health Care Providers Trained in Clinical FP	Number of Trained Clinical Supervisors	Health Care Providers Trained in IEC FP	Health Workers Trained in CBHW TOT	Facilities With Functional CBHWs	Contra-ceptive Coverage (January - June)
End of 1998	26.35%	23% (6/26)	0	36% (9/26)	0	0%	-
End of 1999	95%	115% (30/26) ^s	1	85% (22/26)	11	91% (10/11)	17%

To conclude, more health facilities provide FP services (from 26.35% to 95% of health facilities) and more CBHWs are available to provide FP services (from 0% to 91%).

b- Factors That Contributed to the Achievement of These Outcomes:

As it can be seen, BSCSP has achieved in Year one objectives associated with Year 2. Several factors contributed to this success. First, this was possible because of the new Pilot Reproductive Health Project in the Betioky Sud SSD supported by UNFPA, whose work was very complementary to BSCSP's support of birth spacing. The good coordination of activities by the SRSR maximized the expected results. Second, the presence of a mixed team (Government-NGO) of experienced trainers in the Toliara area, enabled the maximization of resources.

c- Intervention Constraints:

- ◆ Providing services at the community level served as a sound basis for improving people's access to family planning services. However, CBHWs' limited capability undermined this activity. The lack of a clear SSD policy on placing health workers at health facilities to manage and follow-up on community based activities, increased the risk of failure for this community approach. To solve this problem, the BSCSP proposed to have on-site health workers regularly (on a quarterly basis) provide refresher training

* In addition to the 26 health care providers trained, the BSCSP trained District FP/Reproductive Health Officers in clinical FP, and 3 midwives in the Betioky Sud CSB2 who complement FP services in the area.

for CBHWs. These health workers, already trained in CBHW TOT, will supervise the CBHWs at least twice quarterly.

- ◆ At the early stage of community mobilization activities, we noted a resistance from individuals to birth spacing issues. This is contrary to the findings of the 1997 Situation Analysis that showed an unmet need for birth spacing. The BSCSP has not yet had the time to assess the causes for this situation, but proposes to study it during the first quarter of Fiscal Year 2000. Meanwhile, the BSCSP has intensified its support of community mobilization focusing essentially on rumor control.

3.2 EPI

Current Situation

Cold Chain Coverage (End of FY 1999)

Table 3-D : 1998 - 1999 Cold Chain Coverage

Year	Health Centers with Refrigerators		
	SSD	Health Centers Within the BSCSP Project Area	Health Centers Outside the Project Area
1998	55%	55%	67%
1999	85%	82%	89%

Source: SSD data

During FY 99, there was a net increase in cold chain coverage. This is a result of a collaborative effort with UNICEF, which donated five refrigerators to the Betioky Sud SSD in June 1999. With the three refrigerators that the BSCSP has ordered through the child survival project, coverage will reach 100%. Please note that the national objective for cold chain coverage is 80%. The health centers in the project area that are not yet equipped with refrigerators are the CSB of Ambatofotsy and the CSB1 of Soaserana.

Vaccination Coverage in Betioky Sud

Table 3-E : Comparison of the vaccination coverage for first semester 1998 and first semester 1999 (January to February)

Year	Zone	Children 0 to 11 months			Pregnant women
		BCG	DTCP 3	Measles	TT2
1998	District	36.4	24.4	22.5	-
1999	District	16.95	10.53	11.5	7.61
	Outside the Project area	8.95	6.37	7.14	8.32
	Within the project area	25.04	14.74	15.90	6.88

Sources : SSD data and BSCSP HMIS (based on monthly activity reports from the CSB).

Note:

- The denominator used for estimating the vaccination coverage is the annual target population;
- The CSB of Bezaha Tanosy did not provide any data from its activities in 1999, and the result does not reflect their operations.

Coverage during the first semester of 1999 represents half of the 1998 coverage. Coverage in the BSCSP project area represents at least twice the coverage rate of other areas for BCG, DTCP3 and measles, and exceeds the coverage for the entire District.

Table 3-F: Vaccination coverage by health establishment for the Betioky Sud SSD (January 1999 to June 1999)

Health Establishment	With Refrigerator	Children 0 - 11 months			Pregnant Women TT2
		BCG	DTCP3	Measles	
Ambatofotsy *	No	56,79	6,43	11,79	37,15
Ambatry*	Yes	18,16	19,98	27,04	4,48
Andranomangatsiaka	Yes	19,41	11,81	19,41	9,00
Ankazomanga Ouest*	Yes	53,00	25,85	34,90	6,32
Ankilivalo	Yes	0,89	2,22	0,00	13,80
Antohabato*	Yes	36,76	11,35	24,51	6,86
Beavoaha*	Yes	22,84	33,30	13,55	8,95
Belamoty	Yes	2,76	2,76	2,03	12,28
Betioky-Sud*	Yes	36,98	24,29	19,03	10,08
Bezaha	Yes				
Lazarivo*	Yes	15,40	2,99	6,44	5,73
Manasoa Fanjahira	No	15,89	2,58	0,86	14,13
Maroarivo*	Yes	6,97	2,05	5,74	1,82
Sakamasay*	Yes	42,53	34,66	39,38	4,20
Salobe	Yes	0,00	0,00	0,00	0,00
Soamanonga*	Yes	12,13	1,16	2,31	3,34
Soaserana*	No	10,01	0,00	4,62	0,00
Tanambao	Yes	3,46	2,31	0,00	0,00
Tongobory	Yes	17,14	13,92	13,39	9,76
Vatolatsaka	Yes	22,94	17,64	26,46	19,08
Grand Total	16 out of 20	16,95	10,53	11,50	7,61

Sources : BSCSP HMIS (based on monthly activity reports from the CSB).

*Health establishments with an * are within the MCDI child survival project area.*

There are no significant differences between the coverage of health centers equipped with refrigerators and those without. This shows that the problems paralyzing the system go beyond service delivery (i.e. from the organization of the SSD to the storage of vaccines at the health centers).

The national objectives are established at 90% for BCG and 80 % for other antigens. In order to appreciate the efforts put forth during the semester, vaccination coverage at the end of the semester should be compared to half of these objectives.

In the BSCSP project area, 82% (9/11) of health establishments did not reach the semester objectives for BCG, and no health establishment reached the semester objectives for DTCP3, ATR or VAT2. Attention should be given to the CSBs of Maroarivo, Lazarivo, Soamanonga and Soaserana which all reported low coverage rates during this period.

The low TT2 coverage is a result of three main factors: (1) the modification in the target population (placing emphasis on pregnant women despite the fact that many among them were already vaccinated during the previous health campaign targeting school girls and all other women of child bearing age, and that this vaccination opportunity is too restrictive since most women are used to having only one PNC during a pregnancy⁶) (2) the data collection method which only focuses on pregnant women to whom TT2 was given. TT3 and other types of vaccines are not mentioned, (3) the lengthy period of TT antigens stock shortage at the Betioky Sud SSD should also be considered.

Despite the fact that EPI is among the most important interventions in the Betioky Sud SSD and that the BSCSP categorized it as a priority intervention for the project, the results reflect low coverage and minimal improvement during 1999 (see tables 4-E and 4-F). As can be seen, vaccination coverage during the first semester of 1999 is clearly inferior - almost half - to the coverage in 1998. This is more a result of a failure within the entire EPI system at the district level rather than a "simple" lack of resources often discussed at review meetings between the SSD and its partners. This problem concerns the delivery of EPI services as much as other factors like the utilization of the service and problems related to the community.

Hence, the contributing factors are as follows:

1- At the SSD level:

- The inability of the SSD to respond to the basic needs of health establishments, in particular with regard to the efficient management of fuel, vaccines and cold chain equipment. In fact, the *irregular provision of fuel to the health centers is the principal reason for this decrease in coverage*. Since 1997, the BSCSP has addressed the problem of fuel. This first time the BSCSP addressed this issue was during a 1997 meeting with the Minister of Health in Betioky-Sud. This observation was not considered as a major debilitating factor. However, this problem has undermined the results from EPI in 1998 - 1999. From late 1998 to June 1999, more than 75% of district health establishments had not received a reasonable supply of fuel⁷. Health centers that are the most affected are those far away from the SSD. In addition, the poor quality of fuel *destroys the fuses* of refrigerators, while these centers did not receive a *regular supply of fuses*. The person responsible for this equipment was also overwhelmed with breakdowns (of old refrigerators) that occurred too often. The donation of five new refrigerators from UNICEF only occurred in June 1999.
- A role conflict between the SSD Chief and the EPI Officer led to a lack of decision-making structure. For example, before undertaking a supervision or site visit to a CSB in order to repair a refrigerator, etc., the EPI Officer would always wait for approval from the Medical Inspector, despite the fact that the Medical Inspector, often away from Betioky Sud, thought that the EPI Officer was capable of making decisions of this nature on his own. This made it very difficult, even impossible, to take actions to respond to the pressing needs of the health centers. When there was a measles epidemic in Betioky

⁶ MCD International. KPC Baseline Survey Report. DC. Nov. 96

⁷ Observations made during a 1999 - 2000 EPI micro-planning meeting in Betioky Sud (October 7-8).

Sud in 1999, there was no one to lead efforts to combat it. This is a good example of the role conflict that existed. This conflict also contributed to the supply of fuel.

- The lack of planning: Each year, a regional EPI planning meeting is conducted by the Regional Health Directorate of Toliara with funding and technical support from UNICEF within the framework of an annual review. The Medical Inspector and EPI Officers from each SSD take part in this meeting. For Betioky Sud, this meeting is seen as merely administrative/bureaucratic. Thus, this planning meeting did not take into consideration the real needs in the field, nor the district capability to implement it. In addition, there has not been any preparatory meeting for the health agents/workers (who are key players with regard to implementing EPI interventions) and no feedback from these planning meetings was ever received. As result, the health agents/workers did not know which objectives were established, if these meetings took into consideration their respective local constraints, or the new strategies adopted.
- Underestimating the problems facing EPI.
- The lack of vitality among SSD officials. The reshuffle of health personnel, the replacement of the Medical Inspector in June 1999, and the arrival of his assistant brought renewed hope for health officials.

2- At the health center level:

- A relatively low functional cold chain coverage: Up to June 1999, the coverage in refrigerators in the Betioky Sud District was 11/20 or 55%. As of June 1999, this coverage was estimated at 17/20 or 85%. The national objective is 80%.
- A weakening of vaccination activities: fixed strategy, advanced and flexible strategy. This is due to the lack of planning and supervision structures at the health center level.
- Frequent health center closings due to training activities during late 1998 and mid 1999. However, this does not justify the decrease in performance because it has been observed that in health centers with two or more health agents/workers (those which were not subjected to closings), the results also indicated a decrease.
- Lack of supervision and monitoring of results.

3- At the community level

- A decrease in the motivation level of the population with regard to vaccination due to the fact that the service hardly exists. This is more closely related to communities used to flexible and fixed strategies; and resistance to vaccination from certain people

During FY 1999, the BSCSP attempted to address each of these issues; it succeeded in implementing a micro-planning meeting for health agents/workers. There were two reasons for this meeting: (1) There have been problems with the EPI system at the Betioky Sud SSD, as indicated by the baseline survey undertaken by the BSCSP in 1996. The survey showed that only 9% of children were completely vaccinated, and that it was difficult to redress the situation in such a short period of time, (2) The (un)willingness of decision-makers at the SSD level was affecting the system. Since June 1999, the appointment of a new Medical Inspector and his team seems to have given renewed hope to the district.

Based on EPI results, the BSCSP's initial hypothesis with regard to the choice of interventions to implement in the district is currently being verified. The hypothesis was as follows: "Given the weakness in the current system, it would not be prudent to support interventions which tend to rely heavily on the system (...), it is preferable to focus on interventions that are geared towards the community in order to see verifiable impact."⁸

⁸ MCD International. Detailed Implementation Plan. D.C. December 1997. Pp. 44

Activities Undertaken During FY 1999

EPI Planning meetings: Given the problems identified earlier, BSCSP held 2 workshops (in December 98 and March 99) with District Officers in an attempt to provide them with the necessary technical assistance to better plan for EPI services in Betioky Sud. These meetings were focused on finding solutions for the problems facing EPI, and the organization of vaccination services. Ten people from the SSD participated in these meetings, including the Medical Inspector, SSD Program Officers (EPI, SIGS, IEC-Nutrition, FP), 3 CSB Chiefs and the SSD Administrative Assistant.

These meetings highlighted several factors blocking EPI. They range from the supply of fuel and vaccines to peripheral centers, the insufficient planning of activities at the health center level, and insufficient cold chain coverage, to the lack of supervision. The BSCSP also noted the fact that health agents/workers were complaining of the lack of transportation.

It was decided that:

- The SSD will adopt a new method of supplying fuel to the peripheral centers: This involves installing storage points at given strategic CSB (Betioky, Belamoty, Salobe, Ankilivalo, Beza, Soamanonga) which will ensure the supply of fuel to surrounding CSB with refrigerators. The SSD will supply these storage CSB on a quarterly basis. The SSD will get its supply from the gas station in Betioky Sud and will transport it to the CSB storage facilities. With this supply method, the cost of fuel transportation and operating costs are reduced. In addition, the centers are likely to receive higher quality fuel. Please note that the SSD budget for fuel is sufficient to operate the cold chain. The BSCSP provided all the equipment necessary to establish these storage facilities (16 200-liter barrels, 20 20-liter jerrycans). A memorandum was drafted to elaborate on this new plan⁹.
FY 1999 results: Unfortunately, and for reasons unknown to BSCSP, the SSD decided not to implement this new plan, and the problem of fuel supply remained unchanged.
- The vaccine supply system of peripheral centers will be provided by the SSD on a quarterly basis with support from partners.
FY 1999 results: This supply system was adopted but the SSD store could not satisfy the demands at the peripheral level because of stock shortages (forgetting to place orders, etc.) and expired vaccines (BCG, tetanus and measles vaccines). The following health centers in the project area were deeply affected by this problem: Lazarivo (serving Soaserana), Soamanonga and Betioky Sud (serving the CSB Sakamasay, Ambatofotsy, Ambatry and Antohabato). This represents approximately **64%** of health centers. The remaining SSD affected by this problem are the CSB of Andranomangatsiaka, Ankilivalo and Bezaha). In the entire SSD, approximately **50%** of CSB experienced vaccine problems.
- Efforts should be placed on strengthening the CSB supervision structure. The issue raised by the SSD relates to the lack of transportation (insufficient funds for the procurement of fuel, the insufficient number of vehicles available) and the lack of funds for per diem for the supervisors. In addition, there was the lack of an appropriate supervision tool.

⁹ MCD International. Meeting Report on EPI and Supervision of Betioky Sud SSD. December 98

FY 1999 results: The BSCSP provided funds for the procurement of fuel and payment of per diem to supervisors. This financial support was provided as a temporary mechanism to allow the SSD sufficient time to make budget adjustments according to its supervision needs. This strategy was adopted in order to avoid a situation of dependence. The BSCSP also financed the repair of SSD motorcycles to reinforce supervision. Three motorcycles are currently functioning and three others are being repaired. With this support, the SSD was able to conduct one site visit to all the health centers during FY 1999 and the SSD is currently contemplating its capacity to pay for the per diem of its supervisors.

- A micro-planning meeting for EPI activities was scheduled to take place in January 1999.

FY 1999 results: The frequent closings of health centers due to various training activities conducted from October 1998 to June 1999 did not permit the meeting to occur as scheduled. It is only in October 1999 that the meeting finally took place.

Training of 25 health agents/workers on the National Vaccination Policy and EPI Guidelines

With the collaboration of the SSD, BSCSP trained 25 health agents/workers in new vaccination techniques. The training focussed on the National Vaccination Policy, including an understanding of the composition of the new target population: children less than 5 years old for IMCI sites and pregnant women for TT vaccination; vaccine conservation methods; the organization of vaccination activities, EPI micro-planning at the health center level; basic vaccination techniques; EPI monitoring and HIS. This was a 5-day initial training.

Although this training program was supposed to be funded by the MCDI Child Survival Project, the Ministry of Health proceeded to fund this activity in December 98. The BSCSP supported this training program by providing two trainers, organizing the training program, supplying training kits, and reproducing training materials.

The training objectives were to provide health agents with the capability to (1) ensure a higher-quality delivery of vaccination services in accordance with the new National Vaccination Policy, (2) plan their respective vaccination activities (3) ensure the proper use of EPI sensitization campaigns (4) ensure epidemiological surveillance of EPI target illnesses, and (5) manage vaccines and materials pertaining to EPI.

Given the results of participant evaluations - indicating a substantial increase in knowledge of EPI services delivery (11/20 at pre-test to 13/20 at post-test) - it can be concluded that all of the participants improved their EPI service delivery skills.

Elaboration of an EPI Animation Guide for health volunteers

This guide is still in its second draft stage. It is a simple tool that reminds animators of their activities and helps them prioritize the different messages that they should disseminate. The guide also includes information on several communication techniques, their advantages and disadvantages (mass communication, discussions, village theater/, etc.). Suggestions for theater sketches produced by other animators are also included, as well as recommendations for improving messages in terms of proper dialects and regional differences.

The starting point of the elaboration of the guide was an assessment of IEC material needs. This assessment indicated the weakness of health volunteers in terms of the rational utilization of different message diffusion methods. It was found that they often poorly use mass communication (public meetings) and are not able to appreciate its effect. A second point identified by the assessment was the need to develop a creative spirit among the volunteers, since it was determined that the majority of them were not able to reformulate messages once the method of communication had been changed.

The second stage was the elaboration of a first draft that was presented to volunteers for feedback. The volunteers made recommendations that were gathered for the write-up of the second draft. The next step in this process is the pre-test and finalization of the guide.

Training of volunteers and follow-up on EPI campaigns

52 volunteers received training in EPI promotion from the health sectors of Tongobory and Beavoaha. 43 of the volunteers were monitored. Details from these activities can be found in the IEC section – Community Approach. Please note that given the insufficient supply of EPI services by the health system, the BSCSP did not deem it wise to invest significant effort in creating demand for the services.

Support to National Immunization Days (NID)

BSCSP participated fully in the realization of the NIDs in the SSD of Betioky Sud, as it did during the first two years of polio eradication campaigns in Madagascar. The Betioky SSD was divided by EMAD in three zones of responsibility:

- Zone 1 : Belamoty, Salobe, Tanambao Haut, Manasoa Fanjahira, Beza Antanosy
- Zone 2 : Betioky, Andranomangatsiaka, Ankilivalo, Vatolatsaka, Tongobory, Ambatry, Maroarivo and Ankazomanga
- Zone 3 : Lazarivo, Soamanonga, Soaserana, Sakamasay, Ambatofotsy, Antohabato and Beavoaha.

Zone 3 was under the responsibility of the BSCSP, the SSD had responsibility for zone 2, and MSF was responsible for zone 1. These groups were responsible for all aspects of the implementation of the NIDs from the distribution of vaccines and vitamin A, to the establishment of vaccination teams, supervision of activities and the gathering of results.

The program's objective is to vaccinate every children in Madagascar ages 0-5 against poliomyelitis by means of three polio vaccination campaigns every year. Each campaign comprised two vaccination rounds separated by one month. The second round was accompanied by the administration of vitamin A to children 6 months and above. This program began in 1997 and will end in late 1999. The first 1999 NID round was launched from September 8 - 11. The results from this campaign are shown in the following table:

Table 3-G : 1998 – 1999 Results from the first NID rounds

Year	Area	Children 0-5 years vaccinated
1998	District	100.5%
1999	District	100.35%
	Outside the BSCSP catchment area (Zone 1 and 2)	98.92 %
	Within the BSCSP catchment area (Zone 3)	106.90 %

Source : SSD data

As it can be seen, the BSCSP largely contributed to the attainment of the 100.5% coverage.

Other

As described in the DIP, the BSCSP had planned to provide five refrigerators to the CSBs that do not have any, which would improve the cold chain coverage in the SSD. This was done in late FY 99 and we are currently awaiting the arrival of three refrigerators that the BSCSP purchased from UNICEF.

Fiscal Year 2000 Action Plan

At the end of September 1999, the BSCSP organized a working meeting for the SSD, MCDI and MSF with the goal of searching for EPI solutions.

The group reviewed and revised the old plan to supply fuel from the central SSD location and establish peripheral warehouses. Health facilities have all received a six-month supply of fuel. The BSCSP supported the transport of fuel for the CSBs of Antohabato, Beavoaha, Lazarivo, Soamanonga and Sakamasay, totaling 1000 liters, and provided an inventory notebook for each health center for the management of fuel.

A trip to repair the CSB refrigerators was scheduled for the person in charge of EPI at the SSD. Except for Beavoaha and Maroarivo, the 16 refrigerators of the SSD are all in working order. For these two CSBs, vaccines will be supplied on demand until their refrigerators are in working condition.

In October 1999, a micro-planning meeting of all the CSB heads was held in Betioky under the financial and technical support of BSCSP and MSF to make a detailed plan of EPI activities for each CSB and to conclusively resolve the problems preventing the smooth running of the EPI system.

The Year 2000 plans that resulted from the meeting are as follows:

From now to December 31, 1999:

- Attain a vaccination coverage supported by the MAR (Monthly Activity Report of the CSB) of all the antigens at 70% of children 0-1 years for BCG, DTC3, ATR, and TT2 for pregnant women
- 100% of health centers would not have had a shortage of fuel supply
- 100% of health centers would not have had a shortage of vaccine supply
- 100% of health centers would have been supervised at least once

Year 2000:

- Attain vaccination coverage of children 0-1 years supported by the MAR, at 90% of BCG, 80% of DTC3 and ATR, and 80% of TT2 for pregnant women.
- 100% of health centers would not have had a shortage of fuel supply
- 100% of health centers would not have had a shortage of vaccine supply
- 100% of health centers would have been supervised at least four times

Although these plans seem ambitious, they are within feasible reach as long as the problems with fuel supply, vaccines and the cold chain are resolved. A schedule by CSB to meet these short-term objectives was established for each Chief of Post and the implementation began in mid-October. The situation is currently being addressed and has become encouraging.

Social mobilization will be strengthened by health volunteers and community festivities. A planning workshop for SSD supervision will take place on November 4.

3.3 Diarrhea Control and Breastfeeding Promotion

Current situation

Table 3-H: Diarrheal Illness Situations in 1998 and 1999

		Utilization Rate	Diarrheal Illness Incidence for	
			Children under 5 years of age	General population
1998		36.5%	13.50	7.3
1999 Jan. To June	District	25%	21.16	12.69
	BSCSP Project Area		19.16	11.63

Source: CSB Monthly Activity Report

The health center utilization rate diminished significantly during the first semester 1999 compared to 1998. One of the causes of this decrease is the fact that health centers were closed too often during different training sessions attended by the personnel attended. We also note that the incidence of diarrheal illnesses at the health centers rose slightly during 1999 and that there is no significant difference between the project areas and the district as a whole. It is expected that the frequency of diarrheal illnesses will rise in 1999 when the data from July to December is collected (during this period, the rainy season lasts for three months). However, this number also reflects the fact that people have started treating this illness at the health centers. This change is *due to the increased availability of information on how to identify the illness' warning signs*.

Other observations: Mothers questioned during their follow-up visits in some communities (Tongobory, Bezaha Mahafaly, Salobe, Antohabato and Soamanonga) said that since BSCSP implemented the diarrhea program, during the rainy season infant mortality due to diarrhea decreased significantly when compared to previous seasons. They linked this fact to the volunteers' efforts to inform people about home case management, hygiene and exclusive breastfeeding as well as identifying the warning signs for diarrheal illness. *In the Bekotika Fokontany (the Tongobory health zone), the Fokontany President said that during the last rainy season, diarrhea killed one child compared to 20-25 during previous years. During the festival organized by BSCSP and the community in June, the deceased child's parents publicly spoke in favor of the program promoted by the volunteers. Later, the mother decided to become a volunteer.*

Unfortunately, this decrease cannot be statistically supported because mortality and its causes are not part of the health centers' Health Information System. The BSCSP is going to conduct an internal evaluation including a quantitative survey to evaluate what new strategic direction is necessary for the interventions.

Activities Accomplished

Since these interventions essentially require community level activities, details about the activities carried out are part of the section "Community Approach". However, pertinent remarks about these interventions are presented below.

151 health volunteers were trained in diarrhea prevention including: home diarrhea case management, warning signs, hygiene, and feeding a child who has diarrhea. 110 of these 151 volunteers were monitored 4 times during Fiscal Year 1999.

114 health volunteers were trained about exclusive breastfeeding promotion, including its advantages, the necessary conditions for efficient exclusive breastfeeding, weaning. 94 of these 114 volunteers were monitored 4 times during Fiscal Year 1999.

Oral Re-hydrating Salt Supplies (ORS): These supplies are available through the drug cost recovery system¹⁰. There were no ORS stock shortages at the 11 health centers in the BSCSP's project area. The same is true for a limited quantity of electrolyte solution at the health centers. The SSD was convinced to adopt a pro-child survival policy by accepting to reduce the retail price for the patients needing ORS at the health centers level. The current

¹⁰ An Essential Drug Cost Recovery Program was recently launched by the Health Minister in every health center in Madagascar with the financial participation of users. MCDI supported the implementation of the community-managed pharmacies and its management centers during the Planning Grant phase.

price is 450 Fmg¹¹ (a wholesale price that the SSD pays to the central purchasing center) compared to 750 Fmg¹² at the end of 1998. The BSCSP will try to reduce this price to its lowest possible level by subsidizing it with other drugs for adults.

Given the end of the rainy season, the BSCSP is currently proposing an ORS community distribution program using volunteers and hopes to implement it as soon as the MOH approves it.

Health workers' training in diarrhea case management: As mentioned in section 3, BSCSP is no longer planning on training health workers in vertical programs, but it will focus on IMCI. In October '99, twelve health workers are supposed to attend IMCI training in Toliara.

Three support groups for breastfeeding and diarrhea prevention were established in three health sectors. Group members must share their successful experiences, diarrhea home management techniques, exclusive breastfeeding promotion advantages, hygiene, oral re-hydration therapy. They use of participatory education campaigns, sketches, village theaters, scenario productions and song compositions to promote health.

Fight against Cholera

Cholera has reached Northern Madagascar and the High Plateau after outbreaks were observed in Madagascar in May 1999. Cholera has not been found in the Toliary province, including in the Betioky Sud SSD. In accordance with the USAID Mission's approach to this illness in Madagascar, BSCSP thought about becoming involved with illness prevention by using diarrhea interventions of the child survival project in Betioky Sud. Therefore, BSCSP started working on the education component of this illness, especially food and hygiene, potable water, latrine use and monitoring of cholera outbreaks.

In addition to integrating the fight against cholera into the current project's Diarrhea component, BSCSP's approach is to involve all partners (community, technical services, local authorities, health services, associations and NGO) in the fight. Since an Intersectoral Committee of the Child Survival Support¹³ (CISASE) was created in the Betioky Sud district, BSCSP informed committee members of the cholera threat and outlined the necessity to act in a concerted and coordinated manner. A Cholera Sub-committee or a Sub-Committee for the "Fight against epidemic diarrheal illness and for hygiene control" was then created within the CISASE framework and its president is the Betioky Sud Deputy Prefect. The committee's terms of reference, that has 12 pluri-disciplinary members, is to elaborate the district's strategy against this threat, to establish the actions to carry out urgently the plan and to develop an action plan. With support from BSCSP, a local workshop took place in May 1999 to respond to these questions. The workshop's conclusions are the following:

- Cholera sub-committee goals :
 - To improve household hygiene, especially regarding defecation.
 - To reinforce the population's knowledge about cholera and the necessary measures for its prevention and in case of declared epidemics.
 - To improve drinking water supply.

¹¹ \$ 0.08

¹² \$ 0.13

¹³ See section IEC – Community Approach

- Cholera sub-committee approach :
 - Massive information distribution to the population.
 - Formalization into "sub-prefectoral and/or communal directive" of the necessary hygiene measures to prevent the dissemination of Vibrio Cholerea
 - To lobby the appropriate officials at the district level to improve water supply, latrine installation and public garbage disposal.
 - Actions at the level of the chef lieu du District in the beginning and progressive implementation of the Cholera Committee in the villages and in the Fokontany.
 - General participation in the fight (all partners).

- Planned Actions and results: The following majors actions were planned by this cholera sub-committee to be carried out immediately:

Table 3-I: Cholera sub-committee activities

Planned Actions	Activities accomplished	Observations
Rehabilitation and protection of 3 wells in Betioky Ville (with the support of PGED ¹⁴)	<ul style="list-style-type: none"> - 3 wells were refurbished and made functional in Sept. 99 - Education of the general public in 03 Fokontany - A communal directive about wells maintenance signed by the Mayor - Social Convention¹⁵ approved by the community and enforced - 3 Water committees established around the three wells and charged with the responsibility for protecting the wells from contamination. - 2 follow-up visits and supervision of wells' hygiene by the committee. 	
Public water fountains improvement and cleanliness	<ul style="list-style-type: none"> - Application for financing sent to the local Development Committee in June 99. - Fences were put around 6 improved public fountains - 6 information visits made to public fountains users 	<ul style="list-style-type: none"> - The financing for three new public water fountains in Betioky Sud are approved for the year 2000 as part of the 302,000,000 Fmg from the Prefecture.

¹⁴ PGED : Programme de Gestion d'Eau Diocésien. Religious organization working to improve potable water supply for the Mahafaly region.

¹⁵ Social Convention or "Dina" is an unofficial community law created by villagers

Planned Actions	Activities accomplished	Observations
Information distribution to the general public	<ul style="list-style-type: none"> - An information stand discussing Cholera was set up. Each market day, the members of technical services in Betioky take turns manning the stand. 4 "information" days have taken place up to this point. A review and planning meeting is held monthly by the cholera committee. - Monthly information visits at Fokontany. - A cholera brochure was developed and posted in public places. 	<p>BSCSP furnished the audio-visual materials necessary to make the cholera stand successful</p> <p>Banners about cholera, diarrheal illnesses, breast-feeding, birth spacing, and vaccinations produced by BSCSP are displayed at each stand.</p>
Improved latrine use by the general population	<ul style="list-style-type: none"> - A prefectoral law was approved and diffused to the public: "One household, one latrine, garbage dump" and cleanliness in public places. 	<ul style="list-style-type: none"> - The people chosen to apply this law did not follow-up due to "moral constraints" since latrines are taboo for the Mahafaly. Another approach will have to be explored later.
Extension of committees towards the communes and Fokontany	<ul style="list-style-type: none"> - A note signed by the Deputy Prefect of Betioky ordering the establishment of a committee in each commune was published by each Mayor. 	

3.4 IMCI

In early Fiscal Year 1999, a Cooperative Agreement between BSCSP and UNICEF was signed to provide support for the implementation of IMCI in the Betioky Sud SSD. The Agreement called for the implementation of IMCI interventions, including clinical and communication components in 5 health facilities. Given that BSCSP was already active in promoting 4 other interventions (re. DIP) at the community level, it was agreed that BSCSP would take the lead in implementing the IMCI intervention in 5 community zones selected, and that UNICEF would implement the clinical and communication components of the intervention. Thus, BSCSP extended all community interventions to the 5 additional health zones in Tongobory and Salobe. As result, 5 health zones are now operational and delivering IMCI services, and 4 health facility staff have received IMCI clinical training (2 at the CHD, a referral level, and 2 at the CSB). The 2 CHD staff were trained as trainers. However, at the end of FY 99, there were no health facilities operational for the implementation of clinical IMCI.

There is, nonetheless, a major obstacle to the extension of this activity. The constraint relates to the insufficient number of available health personnel at the facilities. Indeed, only 5 health facilities have 2 or more personnel and the remaining facilities only have one health worker each. This situation has not changed despite the fact that one of the recommendations from a meeting held to discuss the implementation of IMCI in Toliara, was to have at least 2 health personnel at the facility in order to ensure the effective implementation of IMCI interventions. This situation is true for the entire Toliara region in which, to this date, a total of 197 health facility personnel were trained, but IMCI was implemented in only a few facilities.

In late FY 99, BSCSP reviewed with the SSD, new strategies to effectively implement IMCI in the Betioky Sud SSD, in accordance with the objectives set by the National Health Policy. It was decided that during FY 2000, the 5 health facilities having satisfactorily met IMCI requirements, will be opened as IMCI centers. Then, health facilities with only one health staff, which have on average more daily consultations of children 0 to 5 years of age, will be targeted as IMCI centers. This will result in the selection of 9 health facilities and the training of 16 health facility staff by early FY 2000. In addition, a reorganization of tasks performed by health facility staff was addressed and it was decided that IMCI consultations would be separated and distinct from other consultations.

4. IEC Activities, Mobilization and Community-Based Approach

Community based actions are a very important component of the Betioky Sud Child Survival Project. At start-up, BSCSP thought a more community-based approach was important and chose interventions with identifiable, visible impacts. Therefore, BSCSP focused on the community, family and the individual, while emphasizing its communication efforts to change behavior. This work was done to redress the Betioky Sud health system's weakness which cannot manage this type of interventions.

BSCSP's community approach consisted of first recruiting volunteers to promote health in general, and infant and maternal health specifically, under the supervision of health facility staff. This approach also included the creation of different support groups for infant and maternal health around the health centers. Volunteers were regularly trained on various project interventions, and subsequently, the information was disseminated to the population and support groups. They also engaged in other activities to support the health centers (for example, active research of target populations for EPI, FP and pre-natal consultations, help during vaccination, nutritional follow-ups for children etc.). The approach was enhanced by the collaboration of local associations (VEMIMA and GMAAD) that promoted health and literacy.

During Fiscal Year 1999, a multi-sectoral dimension was added to the approach. Local individuals and institutions became involved in supporting the development of health projects. In order to ensure sustainability, BSCSP sought a way to motivate the volunteers.

Activities implemented

Increase in the Number of Volunteer Sites

New volunteers were added in 5 of the 6 CSBs, raising the number of sites with volunteers to 8. The BSCSP/UNICEF Cooperation Agreement to implement IMCI community sites following the UNICEF Bamako Initiative sites and other potential Betioky Sud SSD CSBs, comprised 2 health zones north of Onilahy (Tongobory and Salobe) to be among BSCSP's sites for community activities¹⁶. The volunteers' distribution were as per the following steps: (1) preliminary sites visits to make contact with local authorities, leaders, and the center's management committee members, and to raise community awareness about the approach and background of an animator; (2) the official presentation of the volunteers to the population and to the local authorities.

Table 4-A: Volunteers recruited during Fiscal Year 1999

CSB	Number of volunteers placed in the field
Antohabato	14
Ambatry	18
Betioky	12 <i>(23 volunteers from the associations were already placed in the field)</i>
Tongobory	33
Salobe	43
Total	120

245 volunteers (much higher than the expected number of 142) now work in the Betioky Sud Child Survival Project area. BSCSP did not want to thwart the population's enthusiasm since they responded massively to the recruitment effort. In addition, more volunteers meant better information dissemination among the population. Over time, the health workers on site would select the best to be the permanent volunteers. The rest, less well suited, would become the support group leaders or members.

Volunteer training activities and follow-ups

The following tables list the volunteer training activities that were conducted during Fiscal Year 1999:

Table 4-B: Training to Improve Volunteers' Communication Ability

Subject	Curriculum	Number of trained volunteers	CSB where volunteers are based
Basic Communication Technique and message formulation	- Animator Profile	33	Betioky Sud
	- Animation techniques	33	Soamanonga
	- Use of IEC materials for animation	33	Tongobory
	- Contents of a good message	27	Salobe
		14	Antohabato
Total		140	

¹⁶ Cooperation UNICEF/MCD International. IMCI promotion in the Betioky Sud SSD. Sept. 98

Tableau 4-C: Promotion of the Fight against Diarrheal Illness

Subject	Curriculum	Number of trained volunteers	CSB where volunteers are based
Fight against diarrheal illness	<ul style="list-style-type: none"> - Diarrhea Home case management - Warning signs monitoring - Nutrition during diarrhea 	33	Betioky Sud
		33	Soamanonga
		25	Ankazomanga
		33	Tongobory
		27	Salobe
Total		151	

Tableau 4-D: Promotion of Exclusive Breastfeeding

Subject	Curriculum	Number of trained volunteers	CSB where volunteers are based
Exclusive breastfeeding	<ul style="list-style-type: none"> - Maternal milk, a complete food - Exclusive breastfeeding advantages - Breastfeeding mothers' nutrition - Breastfeeding techniques - Weaning 	35	Betioky Sud
		33	Soamanonga
		15	Ankazomanga
		31	Tongobory
		19	Beavoaha
Total		133	

Tableau 4-E: Family Planning Promotion

Subject	Curriculum	Number of trained volunteers	CSB where volunteers are based
Family Planning	<ul style="list-style-type: none"> - Birth Spacing advantages - FP messages - FP rumor control 	5	Beavoaha
		5	Soamanonga
		11	Tongobory
		5	Ankazomanga
		6	Antohabato
Total		32	

Tableau 4-F: Immunization Promotion

Subject	Curriculum	Number of trained volunteers	CSB where volunteers are based
Immunization	<ul style="list-style-type: none"> - Vaccines - Immunization advantages - Immunization calendar - Importance of the Infant card 	33	Soamanonga
Total		33	

Tableau 4-G: Nutritional Supervision

Subject	Curriculum	Number of trained volunteers	CSB where volunteers are based
Growth Monitoring	<ul style="list-style-type: none"> - Importance of children's nutritional supervision - Weight measurement technique 	14	Antohabato
Total		14	

The training team was made up of a mid-wife responsible for District IEC, the BSCSP Health Educator, and an on-site health worker who had been previously trained as a volunteer trainer. In sum, **6 health workers** were trained as trainers. Once trained, these volunteers were given counseling materials (cards), national message guides and other supplies. Baby scales donated by UNICEF in the context of the IMCI implementation in Betioky Sud were also distributed to the volunteers.

Experience exchange trip to Fianarantsoa II SSD (APROPOP II project's site- USAID-John Snow Inc.)

In February 1999, BSCSP organized an exchange and study visit for 11 health volunteers, 5 health workers and 3 officials of Betioky technical services (in the fields of rural animation, agriculture and education) to the Fianarantsoa II SSD. The objectives of this visit were:

- To learn from the experiences of the Fianarantsoa II SSD regarding the community-based and inter-sectoral approach,
- To learn from the experiences of the Fianarantsoa II SSD in the implementation of IMCI, with regard to clinical and community-based methods,
- To exchange experiences among volunteers regarding community integration in health facilities' management and communication abilities.

The 5-day trip included visits to health facilities that have already implemented IMCI, community visits including participation in a local community festival, discussions with the leaders of the APROPOP II Project, and a visit to a school that has already implemented the child for child approach.

According to the evaluation responses, the strong points of this study tour were:

- The health workers were able to:
 - Understand the collaboration between CSB and the local authorities as well as the collaboration between the community partners and the CSB.
 - Understand the logic behind IMCI consultations and the importance of IEC in the provision of care.
 - Learn how to involve the community in the center's activities.
- The health volunteers were able to:
 - Establish good relations, which would generate an attitude of mutual aid and friendly competition.
 - Understand how collaboration between the volunteers and the health center should operate.
 - Understand what is expected from them.

- Technical staff were able to:
 - Evaluate their contribution to the improvement of maternal and child health.
 - Understand how to collaborate with and support health services.
 - Acquire experience in their own field.

This type of study visit could be the basis for further expansion/development of the volunteers' and other health workers' aptitude skills. It also provides a sound means for motivating individuals. BSCSP is planning to organize an annual study visit to another SSD.

Volunteer follow-up

Four of the six volunteer follow-up visits planned for Fiscal Year 1999 were conducted. During these four visits, **483 volunteers benefited from follow-ups (this number represents 33% of the volunteers needing follow-up)**¹⁷. This relatively low number is due to the problem of transportation.

The follow-up visits included an evaluation of volunteers' communication skills, an enhancement of their knowledge of different health interventions, problem resolutions, and an evaluation of their level of effort and planning of next month's activities. The volunteers' level of effort remained stable during Fiscal Year 1999.

Community festival organization

A community festival took place at the Tongobory CSB in June with the goal of furthering knowledge exchange between volunteers and mobilizing the population. Volunteers from Tongobory, Betioky Ville and associations participated. The festival was named 'It is my responsibility to follow health advice as a parent'¹⁸. The festival promoted the 4 interventions of the Betioky Child Survival Project, with a focus on birth spacing. Sketches, songs, theater, dances, use of dolls (infant and adult sizes), distribution of diplomas, and the distribution of small prizes were among the festival activities. It was also an opportunity for volunteers to express to the local authorities and the population their need to be recognized and trusted by the population.

Creation of an Intersectoral Committee to support Child Survival

Conscious of the Betioky Sud SSD's potential for health development, BSCSP added a multi-sectoral dimension to the project in Fiscal Year 1999. Interventions from other sectors that could strengthen the efforts of Betioky Sud health zone have been under-utilized until now.

The idea was to find a way to link with other sectors (agriculture, herding, territorial administration, education, other NGOs and development projects, Ministry of Population, Information, Rural animation, Youth etc.) and use these activities to improve health.

¹⁷ Number of volunteers visited x 100 /Total number of volunteers x 6

¹⁸ In Malagasy: "Adidiko amin'ny maha ray aman-dreny ahy ny manaraka ireo torohevitra ara-pahasalamana"

BSCSP implemented this approach as follows:

	Objectives	Activities carried out and results
Step 1	To provide information to technical leaders and decision-makers on health problems in Betioky and on the necessity of an integrated action to improve health.	1- Organization of an information workshop on the health situation of mothers and children in Betioky Sud in February 1999 2- Creation of an Intersectoral Committee to support Child Survival (members, organization chart and terms of reference)
Step 2	To determine each participant's approach given each one's possibility to support health	1- Preparation of a basic document summarizing each participant's activities that could improve women and children's health 2- Study visit to learn from other's experiences on intersectoral collaboration 3- Workshop to learn how to prioritize and how to compile information. Activities included: (1) IEC and community mobilization through each participant's professional activity, (2) implementation of a district information tool (integrated) to follow-up on some essential indicators for each participant, (3) Information centralization, (4) Improvement of the mail network to the periphery.
Step 3	To develop an action plan	1- Organization of a workshop
Step 4	To implement some activities (Until Dec. 1999)	1- Fight against cholera: Installation of the cholera stand and extension of the cholera committee to the communes (See section 4-3). 2- Training of animators for health promotion (planned for Nov. 99) 3- Elaboration of IEC materials linking health and other sectors.

Steps 1, 2 and 3 were implemented as well as step 4-1. Because of the complex nature of this approach, BSCSP will continue to support these activities and will attempt to transfer the committees' management skills to local authorities while helping other sectors benefit from it. In the long run, BSCSP hopes that the other sectors will learn from this experience and will develop their own network or facilitate an integrated network.

Implementation of the "Child to Child" approach in schools

The "Child to Child" approach is a pedagogical approach with the goal of using primary school students as real information dissemination means and the school as an action center for health. The approach was adapted by the Ministry of National Education – Pedagogical Study and Research Unit (UERP) with technical support from USAID Child Survival partners, in this case the former Madagascar Basics Project. Four subjects are currently developed: diarrheal illness, nutrition/breastfeeding, healthy environment and immunization.

In sum, the “Child to Child” approach broadens the student learning method through practical applications of the curriculum at the class, school, community and family level. The students, who are convinced of the necessity of adopting a behavior favorable to health, implement information, demonstration, and development activities to convince the population to change its harmful behavior.

In May 1999, an agreement between the Betioky Sud Education Service (CISCO) and BSCSP with regard to this implementation approach in public primary schools in Betioky Sud was discussed. As soon as the agreement was approved, BSCSP contacted the UERP’s leaders to implement it.

A three-day information and activities planning workshop took place in August 1999 in Betioky Sud. The two facilitators were teachers/researchers from Antananarivo UERP. 23 people participated, including the CISCO President, 4 CISCO technical aids, 4 pedagogical assistants, 7 ZAP heads (zone d’activités pédagogiques/zone of pedagogical activities) and 7 teachers.

During the workshop, the participants wrote an action plan for the implementation of the “Child to Child” approach. The main lines of this plan are: to target 50 schools for the 1999-2000 school year, to train 6 trainers, to train 70 3rd and 4th grade teachers, quarterly follow-up of trained teachers, quarterly review of implemented activities, annual planning, basic survey and annual evaluation¹⁹. The training of the 6 trainers and the first group of teachers (total 20) took place in October.

Approach for community activities sustainability

At start-up, BSCSP hoped to implement a sustainable program. Given its current approach, the sustainability of the program depends heavily on the sustainability of volunteer community activities. Hence, it was essential for BSCSP to create incentives for volunteers.

In March 1999, BSCSP convened group discussions with volunteers in an attempt to discuss their feelings towards work. BSCSP noted that (1) the majority of volunteers did not expect any type of remuneration (monetary or otherwise) for the tasks they performed; (2) a small group of volunteers expected technical and financial support from BSCSP to develop income generating activities; (3) a very small group expected to be remunerated or compensated for their work.

The idea of income generating activities was embraced by BSCSP and developed into a motivation scheme. Each group of volunteers in a health zone, also named Comité Villageois d’Animation (CVA) was encouraged by BSCSP to think about the most appropriate incentive for them. At the end of Fiscal Year 1999, two health zones agreed to pursue and implement two different schemes.

In West Ankazomanga: volunteers funded and created a fund for a credit system. This fund is self-managed by the volunteer association and is designated to make loans to the population (with interest) or the members (without interest) for commercial or agricultural purposes.

¹⁹ See section: FY 2000 Action Plan

In Soamanonga: the volunteers planned to create a commercial fund for a shop selling basic raw materials. The fund utilizes revenue from video projections made by volunteers.

In both cases, BSCSP plays the role of observer in order to cater to the sense of ownership among volunteers. Technical and financial support will be provided to support these schemes.

In addition, 138 T-shirts, produced by BSCSP and the Betioky Sud SSD, about the fathers' responsibility with regard to their children's health were distributed to volunteers and community partners.

Development of materials for the volunteers' activities

- A volunteer follow-up guide for health workers was developed by the SSD and BSCSP. Different tools are included in this guide: a tool to help guide group discussions with volunteers, a tool to evaluate volunteers' efforts, a guide for discussions with the community, a guide for planning, a tool for interviewing volunteers, a tool to make a list of the resources and to update them (songs, scenarios, etc), a tool to keep track of the reports.
- The animation guide for the animators was finished during this fiscal year.
- IEC materials: BSCSP created 12 scenarios of sketches presented in an audio tape. These scenarios were created and played by the community. Twenty test tapes were copied and distributed to bars, bush-taxis, Fokontany Presidents, and volunteers. At the beginning of Fiscal Year 2000, BSCSP will evaluate the feasibility and the necessity of this approach with the view of duplicating it on a larger scale.

5. Partnerships

In addition to the agreements BSCSP signed with UNICEF and UNFPA with regard to IMCI and integrated reproductive health, respectively, BSCSP continued to pursue other opportunities with partners involved in the Betioky Sud SSD.

Thus, the construction of a new health facility in Salobe was agreed upon with the financial support of the "Fonds d'Intervention pour le Développement". As was the case with the Ankazomanga Ouest, BSCSP was responsible for community mobilization/participation in view of supporting the community's contribution viz. 10% of construction cost. Construction work was completed in October 1999.

BSCSP also pursued its collaboration with VEMIMA by providing regular technical and logistic support for the implementation of the program agreed upon in June 1998. According to the Activity Report submitted to BSCSP, given the weakness of the vaccination coverage, VEMIMA embarked on providing mobile vaccination activities of children 0 to 11 months in areas surrounding the Betioky Ville CSB, with the collaboration of health facility personnel members of the association. However, VEMIMA was forced to abandon this activity because of constraints experienced by its members. It then focused its activity on promoting behavioral change in mothers and their families vis-à-vis the project's target interventions. During, FY 1999, 13 members received training on EPI, EBF, and CDD. These members provided EPI services on a regular basis and participated at the study tour in March and the community festival organized in June 1999. The lack of adequate

transportation had considerably restricted the activities of the association since a vehicle is required to visit approximately 70% of the villages it serves. BSCSP initiated an income generating activity in an attempt to helping the association become self-sufficient and its activities sustainable. With BSCSP's help, VEMIMA established a produce store that would buy produce when there is a surplus and would sell during periods of shortages. An internal project evaluation is scheduled for the first quarter 2000 to review VEMIMA's performance.

6. Capacity Building (Home & Field Offices)

Implementation of the project has helped BSCSP to continue its operations in Madagascar building on the pilot experience of the Planning Grant. It has allowed BSCSP to maintain a full time Child Survival Coordinator, and contribute materially to the exchange of experience with other CS partners, including a more complete participation in CS fora, workshops, and other events supporting dissemination results such as those organized by the PVO CORE Group, the CSTS Project, the BASICS Project, etc.

The project has enabled BSCSP staff to develop and broaden their technical skills in CS programming, implementation, monitoring and evaluation; enhanced familiarity with the DIP process has strengthened not only BSCSP's CS capabilities, but also health programming capability in general.

— MOH Provincial and District levels

- MCDI's Project manager participates on the district health planning team.
- The institutional capabilities of MCDI CS staff have improved based on the formal training they have attended such as PVO CORE Group/CSTS workshops on Malaria, IMCI, Safe Motherhood, Health Facility Assessment, etc. BSCSP has learned that the CSTS project is developing an Organizational Capacity Assessment tool; once that is developed we will apply it. One example of BSCSP's emphasis on improving organizational capacity is the formation of the CS Team at the Home Office.

Home office technical support of the project has focused on the design of research protocols for the pilot cost recovery study, the development of an access-based template for the project HIS, and training. The home office facilitated the participation of Yale University Medical School in carrying out a non-malarial febrile study in the project area.

- Training of Dr. Ratsirarson at BSCSP's Field Manager's Workshop held from June 21-23, 1999 at Washington DC. Training was provided in the areas of community IMCI strategies, rational pharmaceutical management, quality assurance techniques, and malaria rapid assessment methods. The opportunity was also provided to Dr. Ratsirarson to attend the sessions of the Global Health Council at their annual meetings.

The capacity to manage USAID funded grants/cooperative agreements, particularly child survival activities has been strengthened in three ways.

1. Training: The Administrator attended a class entitled "How to Manage Federally Funded Grants" which strengthened his ability to understand the regulations and administer

the program. In addition, the HQ technical staff attended various CORE Group and other child survival training programs that have enhanced their understanding of and ability to address the technical aspects of the project.

2. On-the-job: By virtue of preparing the various technical and administrative reports, researching and procuring medical and other supplies, and generally backstopping the project, the staff have gained a greater appreciation for the tasks and skills required to manage a child survival project effectively.

3. Cross-fertilization: BSCSP has instituted a practice of cross-training staff. To the extent practical, the technical staff have been encouraged to learn about budgeting, contracting, and other administrative actions and administrative staff have been encouraged to learn more about the technical work.

7. Other

7.1 Bicycle Cost-Sharing Plan

In an attempt to develop a permanent motivation/incentive-driven scheme for health facility staff, and to strengthen their current transportation means for the implementation of community activities (volunteer follow-up, community activity monitoring, vaccination and mobilization strategies, etc.), BSCSP started donating dirt-bicycles to health facility staff willing to participate in a cost-sharing scheme and to meeting specific quarterly objectives.

The cost-sharing scheme (50%-50%) will give the staff a sense of ownership and will permit the use of these bicycles for non work-related purposes.

The contract is for a period of 18 months, during which the staff is bound to reaching specific objectives viz. vaccination coverage of children 0-11 months of 80% for all antigens, 2 quarterly follow-ups of community health partners, 2 refresher workshops on a quarterly basis for community health partners. At the end of the contract, these bicycles will become the property of the health facility staff, and EMAD will have responsibility for follow-up activities and ensuring that health facility staffs are performing according to standards established during the implementation of the project. Please note that the assistance provided is in accordance with the National Health Policy and the introduction of community approach techniques.

The cost-sharing scheme was initiated in October 1999 and a total of 8 health facility staff were contracted in September 1999 (8 bicycles donated). Seven additional health facility personnel have expressed interest and are currently awaiting approval from the Médecin Inspecteur.

7.2 Credit-Insurance Plan

Credit-Insurance activities were postponed twice because members were unable to contribute funds to the plan. During two follow-up visits in January and April 1999, we noticed that contributions to the funds would only reached 50% of its required level, despite a significant increase from its original level, and the clear indication of the population's

willingness to participate to the Credit-Insurance Plan. A qualitative assessment of the situation revealed a growing need for credit to pay for health care, which is most likely due to a decrease in household revenue during the same period, (R. Fanomezana and Moma, MCDI Trip Report, April 1999).

BSCSP established a starting threshold of 50% of the required contribution level. This level obviously needed to be adjusted according to the credit limit allowed and its reimbursement scheme. In an attempt to deal with this shortfall, BSCSP decided not to make any adjustments immediately, but rather, to proceed as planned with the hope that new subscribers would join the plan, soon thereafter, thus fixing the problem. If after a given period (approximately 6 months), the problem persists, modifications to the plan would have to be made. In addition, the complex nature of community approach/participation to the scheme warrants a trial period, before proceeding with any changes.

Table 7-An Evolution of the level of contributions

Fokontany	Registered subscribers	Situation Jan. '99		Situation April '99		Situation July '99		
		Amount in account	%	Amount in Account	%	Amount in Account	Members who have contributed	%
Vovomena	504	230000	18.25	537500	42.66	650000	260	51.59
Ankavola	362	187500	20.72	672500	74.31	672500	269	74.31
Ankazomanga	923	382500	16.58	975000	42.25	1250000	500	54.17
Ankandy	127	120000	37.80	232500	73.23	270000	108	85.04
Andrahavia	320	57500	7.19	100250	12.53	395000	158	49.38
Tokoendolo	142	120000	33.80	190000	53.52	177500	71	50.00
Morafeno	225	150000	26.67	200000	35.56	175000	70	31.11
Vonje Bevala	240	0	0.00	0	0.00	25000	10	4.17
Fanato		No representatives						

In effect, the collection of community contributions increased by only about 10% between the April and July monitoring visits. This small gain demonstrated the decrease in the population's enthusiasm relative to events that occurred in April, in particular:

- internal conflicts among the villagers, creating criticism and lack of confidence
- conflict between the community and health personnel
- a theft within a village committee
- delay in start up which caused certain people to lose patience and confidence in the scheme

In the month of July, the level of contributions reached the level of 50% that was necessary for initiation of the plan. No major obstacles to start-up were noted during the monitoring visit. However, when team members interviewed the committee members concerning the weak increase in community contributions, they cited the following reasons:

- some people are waiting for the plan to be up and running before deciding to join it, since they have lost confidence due to the delays
- some people who were pre-registered for the plan have only given verbal commitment, without actually contributing
- collectors in certain villages did not do their work and waited for BSCSP to come mobilize the community

- considerable distances between villages has made it difficult for committee members to travel and mobilize people

In order to address these issues, BSCSP took the following actions:

- initiated judicial proceedings against the previous treasurer of Morafeno and election of a new secretary. BSCSP will provide testimony regarding the embezzlement to the appropriate authorities and will provide logistical support for the necessary physical research of the issue
- mobilization at the central level so that it can serve as the center for mobilization and reference for all questions concerning the association. The central committee submitted a formal request for bicycles in order to facilitate their activities that require movement among the communities. BSCSP will evaluate the feasibility of supplying bicycles in terms of its budget and its sustainability criteria
- a retraining session for treasurers and secretaries on management of the plan was held later in July

The Credit-Insurance Plan officially started in August, and the first monitoring of its implementation took place in September. Results of this monitoring are not available at this time.

7.3 Non-Malarial Fevers Research in Collaboration with Yale Medical School

In May 1999, MCD Board Member Dr. Russell Barbour traveled to Madagascar to carry out a prospective study of malaria and non-malaria febrile agents in Betioky Sud. The purpose of this work is to increase understanding of haematoparasites in the population served by the Child Survival project. Most of this research represents the application of new analytical and diagnostic methods for febrile etiological agent research in Madagascar. Information from this study will be used to enhance diagnosis and treatment of maternal and pediatric fevers. The primary objectives of this initial study were to:

- **Create a baseline of existing malaria species and strains** Yale Medical School will characterize the current strains of malaria in terms of species, drug resistance, and other indicators of virulence. Special attention will be given to identifying **pediatric cross infections** with both *fulciprium* and *vivax* that may have nutritional consequences.
- **Determine the presence/ non-presence of lice or tick borne bacterial etiological agents of febrile disease** These etiological agents are very difficult to distinguish from malaria clinical presentations, but require different therapeutic measures. These tick borne bacterial infections are more easily treated and controlled than malaria and do not respond to most malaria drugs. The presence of these febrile agents has been confirmed in Western Madagascar. A review of the literature suggested that the Yale /MCD Prospective Study was the first application of the Polymerase Chain Reaction method to the analysis of tick or lice borne febrile agents anywhere in Madagascar.

Several methods were used to identify etiologic agents of febrile disease in the Betioky-Sud Health District. Blood and lice samples from individuals presenting with fever at health facilities were taken and ticks and other blood feeding arthropods collected from domestic settings. Blood samples were taken from individuals of any age presenting with fever, and these samples were used for both malaria and bacterial infection diagnoses.

Analysis of the samples has not yet been finalized, but preliminary tests show the following results:

- Malaria could be confirmed in less than half of the patients presenting with fever.
- There was some indication of *P. falciparum*/*P. vivax* cross infection in one blood sample.
- An unexpected, previously uncharacterized, *Rickettsia* bacteria in lice from fever patients also seropositive for malaria, suggests that the possibility of bacterial fever agents cannot be ruled out.
- The possibility of co-infection with malaria and bacterial febrile agents could cloud clinical observations such as presumed drug resistance.
- Malaria confirmation was higher for pediatric patients than adults: age and malaria confirmation correlation was statistically significant at the 10% level, but not 5%.
- The severe pediatric anemia observed and the indications of opportunistic infection in both lice and blood suggest the sampled individuals are immuno-compromised.

MCDI and Yale University plan to follow up with this initial research and will develop a concept paper to that effect when the final results become available.

FISCAL YEAR 2000 WORKPLAN