



SAVE THE CHILDREN

MALI FIELD OFFICE

Kolondièba District

Child Survival 8

Midterm Evaluation

Agency for International Development

AID-FAO-0500-A-00-2034-00

October 1, 1992 - September 31, 1995

May 1994

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infection
BCG	Bacille Calmette-Guerin (vaccine for tuberculosis)
CBA	Child Bearing Age
CDD	Control of Diarrheal Disease
CERPOD	Centre de Recherche de la Population et pour le Developpement
CS	Child Survival
CSCom	Centre de Sante Communautaire
DIP	Detailed Implementation Plan
DPT	Diphtheria-Pertussis-Tetanus vaccine
EPI	Expanded Program on Immunization
FP	Family Planning
FT	Family Trainer
HIS	Health Information System
ICPM	Infirmier-Chef de Poste Medical
IMR	Infant Mortality Rate
KAP	Knowledge, Attitude, Practice
MCH	Maternal and Child Health
MOH	Ministry of Public Health, Solidarity, and Senior Citizens (Mali)
MTE	Midterm Evaluation
NGO	Non-Governmental Organization
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PEV	Programme Elargi de Vaccination
ProMIS	Project Management Information System
PVO	Private Voluntary Organization
SC/US	Save the Children/United States
STD	Sexually Transmitted Disease
TBA	Traditional Birth Attendant
TT	Tetanus Toxin
U5MR	Under Five Mortality Rate
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHC	Village Health Committee
WHO	World Health Organization

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Introduction

A. Project Background

The Mali Child Survival (CS) 8 Project of Save the Children/US (SC/US) was initiated in September 1992 under cooperative agreement # FAO-0500-A-00-2034-00 with USAID/Washington's PVC Program. Mali CS-8 aims at contributing to sustainable reduction of maternal and childhood morbidity and mortality through the promotion of protective behaviors and village self-management for health. The project includes activities in immunization, control of diarrheal disease (CDD), birth spacing, environmental hygiene, malaria control, nutrition education and monitoring, maternal care, and clean water use. The project relies on a family-based, universal-enrollment health information system (HIS). The project is located in Kolondieba district (*cercle*), one of the seven districts of Mali's third region, Sikasso, on the border with Côte d'Ivoire. The town of Kolondieba is located 250 km south-east of Bamako, the Malian capital.

Save the Children has been working in Kolondieba district since 1986. The project is a continuation of Mali CS-4 with a renewed focus on strengthening sustainable village health committees (VHCs). The key health agents are family trainers (FTs, *animateurs familiaux*) who each cover five to eight villages and their VHCs. At the request of the regional health authority, in 1993, the project expanded its activities into the subdistrict (*arrondissement*) of Zantiebougou in Bougoni district. The family registration in this subdistrict took place from December 1992 to January 1993.

The project conducted a baseline survey in May of 1992 (the same time CS-4's final survey), and submitted its Annual Report for FY 1993 in October 1993. CS-8 is constantly updating its Project Management Information System (ProMIS), one of the best and most complete community health information systems in the country. The project's child survival activities are incorporated in a broad set of community development activities, i.e., agriculture, literacy and numeracy, credit, water management, and primary schooling (village schools), supported by the promotion of women. The Child Survival 8 Project needs to be understood within this integrated approach to community development.

B. Area Information

The project operates in all five subdistricts of Kolondieba district (Centre, **Kébila**, Fakola, Kadiana and Tousseguela). The project covers an area of more than 9,000 km². The population size of Kolondieba district is approximately 140,000 in 207 villages. According to the project's Detailed Implementation Plan (DIP), in 1987, an estimated 30,476 children under five (6,757 children 0-11 months of age); and 33,012 women aged 15-45 were living in the area. Zantiebougou, the new intervention zone, has a total population of 22,207 inhabitants. There are approximately 2,691 children aged 0-3 years, and 4,487 women of child bearing age (CBA).

Major health problems in the area include malaria, acute respiratory infections (ARI), diarrhea, malnutrition, measles, tetanus, guinea worm infection, onchocerciasis, lepra, AIDS, and sporadic epidemics of meningitis. There are only 3 physicians working in the area, and among them only one in the curative sector. In 1988, the access rate, defined by the population percentage living within five km or less of a health care facility, was 30%.

There is a rainy season from May to approximately September which is paralleled by a season of increased diarrhea prevalence, and a dry and very hot season from March to May. The cooler months (November-February) correspond to an increased incidence of ARI. 90% of the population gain their livelihood from agriculture, including the production of millet, sorghum, fonio, corn, peanuts, and cotton. Ethnically, the population is constituted mostly of Bambara, Fulani (Peulh) and Senoufo people. Most of the population adheres to Islamic faith, but traditional religious beliefs and practices persist. All of the population is able to speak Bambara.

C. Midterm Evaluation

The SC CS-8 project in **Kolondièba** began on October 1, 1992. This midterm evaluation was done after 19 months, i.e., almost exactly midway in the project implementation. The evaluation was conducted from May 9 to 20, 1994. Among the main goals of the evaluation were to:

1. Assess, with an external as well as internal perspective, the project's capacity to reach its objectives and the degree of achievement of each objective;
2. Assess the degree of sustainability of project interventions, particularly the sustainability of village health committees;
3. Make necessary recommendations for midterm corrections

The evaluation, in its scope of work, closely followed USAID's 1993 FHA/PVC Child Survival midterm evaluation guidelines.

The evaluation team was composed of the following individuals:

1. Johannes Sommerfeld, PhD, MPH, Harvard Institute for International Development, team leader
2. Dorothy Stephens, MHS, USAID, Mali
3. Oumar Bâh, MD, Ministry of Health, Regional Health Authority, Sikasso, Mali
4. Ahmed Zayan, MD, MPH, Save the Children, USA
5. Ludzen Sylvestre, MD, Save the Children, Haiti
6. Peter Laugharn, MA, Save the Children, Mali
7. Fodé Doumbia, MD, Save the Children, Mali
8. Issa Sidibé, MA, Save the Children, Mali
9. Souaïbou Sako, MD, Save the Children, Mali
10. Boubakar Traoré, NGO CANEF, Bougouni, Mali

The core evaluation team was supported by staff of Save the Children, Mali, in Bamako and **Kolondièba**.

D. Schedule of Activities

8 May	Arrival of Sommerfeld and Zayan in Bamako, Meeting and orientation to project with Laugharn, Doumbia and Sidibé, Save the Children, Mali.
9 May	Arrival Sylvestre
g-10-11 May	Meeting of evaluation team to design methodology, survey instruments, discuss workplan, divide tasks among the participants, and prepare logistics.
10 May	Visits to MOH and USAID.
11 May	Travel to Kolondieba and first work session.
12-13 May	Meetings with authorities, SC and health care center staff in Kolondieba. Review and pretest of survey instruments. Printing of questionnaires and interview guidelines. Training of SC Kolondieba staff in survey research. Training of evaluation team in qualitative methods. Interviews with FT's, supervisors, nurses, and health care staff.
14-16 May	Quantitative survey and qualitative research. Field visits of evaluation team to 11 villages in Zantiebouyou and Kadiana arrondissements.
17 May	Analysis of survey and qualitative data. Discussion of results by evaluation team members and with FTs.
18- 19-20-21	Briefings in Bamako, finalization of findings and recommendations, writing of draft report.
19 May	Departure Zayan and Sylvestre.
22 May	Departure Sommerfeld.

E. Evaluation Methodology

The midterm evaluation used a mix of rapid assessment¹ and participatory rural appraisal² strategies involving both qualitative and quantitative methodologies.

Qualitative methods included (i) focus group discussions with village health committees (VHCs) and (ii) a series of semi-structured interviews with SC Kolondieba staff, including the field coordinator, supervisors, nurses, and family trainers. Interview guides for different staff members and staff of the governmental health structures were developed during meetings of the evaluation team in Bamako (Appendix 1). A detailed focus group discussion guide was developed for assessing functionality and self-perception of VHCs, e.g., village-based indicators for evaluating the success or non-success of the program, activities of VHCs and their collaboration with the FT, sustainability issues, the village-based recording of demographic and health-related data, and decision making criteria (Appendix 2). The qualitative methodology involved site visits of the evaluation team to 11 villages in two selected subdistricts, Zantiebougou and Kadiana, and to health centers at the district and subdistrict level. Semi-structured interviews were also conducted with staff of different health care centers, e.g., the director of the Kolondieba health center, male nurses of health care centers at the periphery (*Inzmiers-chef de postes médicaux*, ICPM), of village-financed health centers (CSCoM) and with trained traditional birth attendants (TBA).

Quantitative methodologies included a survey of 210 mothers aged 15 to 49 years with a child under two. A formerly pretested survey instrument used at baseline was adapted for this midterm evaluation (Appendix 3). The questionnaire included 30 questions. Sampling was based on a two-stage cluster sampling approach as outlined by the WHO-EPI program³ (7 randomly selected respondents in 30 randomly selected clusters) and was conducted by 10 teams of three family trainers, respectively. Data entry and analysis were done in EPIINFO 5.1. In addition, project documents were reviewed both in Bamako and Kolondieba, the location of the project.

¹Kidima, L.; Scrimshaw, S.C.M.; Hurtado, E. 1990. **Méthode d'Evaluation Rapide** pour la Nutrition et les Soins de Sante Primaires. Los Angeles: University of California, Center for Latin-American Studies.

²Chambers, R. 1992. Rural Appraisal: Rapid, Relaxed, and Participatory. Brighton, UK: University of Sussex, Institute of Development Studies (Discussion Paper 311).

³Henderson, R.H. and Sundaresan, T. 1982. Cluster sampling to assess immunization coverage: A review of experience with a simplified sampling method. Bulletin of the World Health Organization 60 (2): 253-260.

1. Accomplishments

With USAID's financial support, over only 19 months, the project has accomplished an impressive scope of work. The project has established and fostered a total of 250 village health committees (VHCs), 206 in Kolondieba district and 43 in the new intervention area, Bougouni district (subdistrict of Zantiebougou). Ninety percent of the VHCs meet at least once a quarter. Approximately 30% of these VHC's are already able to fully manage project activities; the rest is being constantly trained and retrained. Thirty-four family trainers (FTs) have been trained in a wide spectrum of activities in order to encourage village health committees to manage their own health problems. To date, these FTs have covered 95 % (237) of the villages in terms of health education. Eighty- eight percent of the family trainers provided functional literacy training for VHCs. Thirty-five percent of the VHCs now have one literate woman member and 68% of the villages have at least one trained TBA. Ninety-two percent of all women have had a trained TBA assisting their delivery.

Between December 1993 and March 1994, 44% of women of CBA have benefitted from general hygiene and health education, 58% from nutrition education, 43% from EPI promotion, 20% from birth spacing promotion, 11% have received refresher training in Oral Rehydration Therapy (ORT) and 13% (4,425) have received training in malaria prevention. In the same period, 21.6% of women of CBA have received one or more prenatal consultation and 7.4% two or more prenatal consultations. Seventy-four percent of all women attended at least one nutrition demonstration session and 59% of mothers of children < 24 months are competent in the preparation of appropriate weaning foods.

The project, in collaboration with the regional and local health authorities, has had a leading role in the success of the EPI program in the district. The immunization rates in Kolondieba district are among the highest in Mali. According to estimates of the midterm evaluation survey, 93.0% of women of CBA have received two or more tetanus vaccinations and 61% of all children aged 12-23 months are completely vaccinated. This represents sustained progress, particularly when compared to baseline data (85% of mothers of CBA with at least two TT vaccinations, 52.2% of children 12-23 months fully immunized).

Table 1 on the following page presents infant mortality data from the project's ProMIS for 1990-1993. These data suggest a significant decrease of infant mortality rates in the intervention area in recent years. The overall IMR fell from 73 in 1990 to 49 in 1993 in the intervention area. These rates are much lower when compared to data aggregated at the national level (168 in 1990 and 126 in 1993). The IMR for male infants fell from 67 in 1990 to 52 in 1993 and the IMR for female children dropped from 80 in 1990 to 46 in 1993. Although these findings need to be confirmed by an independent survey, data suggest a strong contribution of the project's interventions to the decline of infant mortality in the area. The project is currently looking into the possibility of undertaking a verification of the low mortality rates by "lot quality analysis" techniques.

Table 1: Evolution of Infant (under five) Mortality rates (**U5MR**) in intervention area, as compared to national data (1990-1993)

Year	Total births	Deaths	IMR	IMR Mali
1980				325
1990	3,659	268	73	168
1991	3,856	229	59	166
1992	3,476	170	49	n/a
1993	4,218	206	49	126
Males				
1990	1,839	123	67	
1991	1,933	125	65	
1992	1,806	95	53	
1993	2,109	109	52	
Females				
1990	1,820	145	80	
1991	1,923	104	54	
1992	1,670	75	45	
1993	2,109	97	46	

Source: Demographic data from SC/Kolondièba's Program Management Information System (**ProMIS**).

2. Relevance to Child Survival Problems

Major child health problems in the area include diarrhea, malnutrition, malaria, measles, tetanus, ARI, and parasite infections. The child survival interventions and health promotion activities initiated by the project address all of these problems, except ARI. They include the following:

- Village literacy and self-management for health;
- Maternal and adolescent health;
- Control of diarrheal diseases;
- Immunization and disease surveillance;
- Nutrition and breastfeeding; and
- Malaria prevention.

Village literacy and self-management for health

Village literacy and self-management for health have constituted 20 percent of the activities of the project. Village literacy forms the base of self-management for VHCs which are viewed as the driving force behind project sustainability. In addition, increased female literacy has been associated with decreased infant mortality, an increase in family planning and a higher economic status. The baseline survey revealed that only 5 percent of women claimed to be able to read and write in any language. Among the activities to address this problem, the project has established VHCs and is providing literacy training to committee members, 60 percent of which are women. FTs play a crucial role in the sensitization of VHCs.

Maternal and adolescent health

At 2,000 deaths per 100,000 live births (UNICEF, State of the World, 1994), maternal mortality in Mali is one of the highest in the world. The lack of trained TBAs, early marriage, lack of prenatal counselling and an average birth rate of 6.7 children per woman are the main contributors to this elevated mortality rate. The project provides training to traditional birth attendants in literacy, numeracy, proper pre- and postnatal care, techniques for the promotion of child spacing, and training to village health committees in promoting health seeking behaviors for pregnant women.

Control of diarrheal diseases

According to the Ministry of Health, Division of Epidemiology 1992, the second cause of mortality behind fevers (used as a proxy for malaria), among children (0-5 years of age) was diarrhea. Community-level education is being provided to mothers. The education involves raising awareness of the dangers of dehydration, enabling mothers to recognize when prompt treatment is necessary, and encouraging proper personal hygiene and food handling practices.

Focus group discussions revealed a high appreciation of home-made oral rehydration fluids and foods. The project has not disseminated packaged ORS but instead has promoted the use of a home-made sugar and salt solution. Many of the village health committees interviewed therefore, do not even know packaged ORS. Among those who *know* packaged ORS (*keneaji mugu*, literally, “water of health in powder form”) there is widespread understanding that home-made SSS (*keneaji*, literally “water of health”) is equally appropriate in restoring a child’s well-being. Mothers mix one liter of clean water, measured in a locally used one-liter plastic container, with 8 pieces of sugar and 2 pinches of salt. Cereal-based oral rehydration fluids are porridges (*bouillie*), using millet, maize, or rice, with sugar, salt, and a small quantity of *karité* butter.

There is also a comprehension that ORT restores health and does not necessarily correspond to a reduced duration of the diarrhea episode. People say “Health water restores the well-being of the body. It does not stop diarrhea” (*keneuji be de fan’ nema. Nkaate konaboli jo*). However, among some of the VHCs, although awareness of the significance of ORT exists, technical knowledge of SSS preparation needs to be improved.

Immunization and disease surveillance

In 1993, the measles vaccination coverage rate was 26 percent. In the Save the Children Phase I project area it was 73 percent. The lack of health education training for the population and insufficient logistical resources have been cited as reasons for this low rate of coverage. The project supports MOH delivery of EPI services, motivates mothers to attend vaccination sessions, identifies incompletely immunized children, and tracks village coverage rates. In addition, training in the importance of timely and completed immunizations is being provided for women and adolescent girls. The non-payment of salaries of the EPI nurses by the civil administration has led to their demotivation and lengthening the periods between mobile team visits to outlying villages.

Nutrition and breastfeeding

UNICEF reports Mali's 1993 IMR at 126 per 1,000 live births. Exclusive breastfeeding has been shown to greatly diminish diarrhea and to contribute to good nutrition among those who benefit from such a diet. In addition, insults from infections have been shown to contribute to childhood mortality in the absence of a good nutritional status. Mothers are being trained in the importance of breastfeeding, supplementary foods and weaning practices. The project conducts training in the importance and practice of baby weighing (0-3 years), recording of children's weights and the establishment of small gardens for VHCs.

Malaria Prevention

According to the 1992 Department of Epidemiology statistics, fever, (a proxy for malaria), is the number one cause of mortality and morbidity in children 0-5 years. The project is motivating communities to keep village surroundings clean, fill in ditches and other standing water, and train mothers to identify and appropriately treat severe cases.

In conclusion, the mix and focus of interventions by the project is appropriate to address the majority of preventable childhood health problems in the area.

3. Effectiveness

The following table represents the objectives as stated in the DIP and contrasts them with accomplishments during the first 19 months:

Objectives	Target	Progress to Date
Family Trainers conducting functional literacy training for village health committees	80%	88%
VHCs being able to manage project activities	80%	30%
VHCs with 1+ literate member	80%	84%
VHCs having one literate woman member	80%	35%
Villages having at least one trained traditional birth attendant	75%	68%
Pregnant women knowing how to seek prenatal care	80%	64%
Pregnant women having a trained TBA or health professional assisting at their delivery	75%	92%
Pregnant women receiving two ante-natal checkups	50%	68%
Pregnant women receiving a postnatal checkup	40%	Data not available

Girls aged 12-19 years knowing their nutritional needs and being able to identify practices to ensure their normal physical development	60%	Data not available
Girls aged 15-19 years having learned protective behaviors for pregnancy and motherhood	60%	Data not available
Adolescents aged 12- 19 years knowing 3 methods of STDs and AIDS prevention	60%	Data not available
Mothers trained by VHC members in ORT preparation and use	90%	31%
Increase in mothers using ORT and providing appropriate feeding during the last two weeks	by 80%	25%
Women knowing the importance of acquiring clean water	60%	Data not available
Children aged 12-23 months fully immunized	80%	61%
Women immunized against tetanus (2 or more doses)	90%	93%
Cases of measles, neonatal tetanus or pertussis reported to the health post by FTs or VHCs	75%	Data not available

Mothers with severely or moderately malnourished children attending at least one nutrition demonstration session	80%	74% of all women
Mothers of children < 24 months competent in the preparation of appropriate weaning foods	60%	59%
Increase in the number of infants who are exclusively breastfed up to 3 months of age	80% (revised:50%)	42%
Mothers with children under five knowing appropriate preventive measures against malaria	65%	60%
Mothers with children under five knowing how to access care in serious cases	65%	49%
Increase the number of village pro-pharmacies which have a stock of Chloroquine tablets	by 90%	75%
Increase the number of VHCs which have a reliable supply of tablets in their kits	by 40%	Data not available

The table above reflects measurable progress in attaining project objectives. In general, targeted high-risk groups are being reached regularly and effectively. Certain objectives have been surpassed, including the training of family trainers in literacy training, pregnant women receiving at least two prenatal consultations, and women fully immunized against tetanus.

When looking at the table, the project appears to be behind in meeting its objectives *vis-ci-vis* the percentage of village health committees being proficient in self-management and those having at least one literate woman as a member. From October 1992 - April 1994, the project focused its efforts on pilot VHCs. Fifteen villages were chosen from each of the five sites where the project had already been functioning. In April 1994, a synthesis of lessons learned and recommendations for the future was conducted. Among the obstacles cited in attaining self-management and increased participation by women was the lack of literate persons chosen to participate on the VHCs. It was recommended that the self-management could be accelerated by first identifying literate villagers and encouraging the village to allow these persons to participate in the committee. This same recommendation was found to be pertinent for women committee members, as well.

Problems have also been noted in reaching adolescent girls. Reasons cited are the following: lack of knowledge of birthdate, impeding the identification of this population and the method of reaching villagers is not refined to be able to reach a highly specific population. Women are called as a group to participate in health education sessions. Based on this evaluation, the project will review the ability to address these three objectives and revise them accordingly.

4. Relevance to Development

Since SC is the only NGO working in the intervention area, Mali CS-8 is the main driving force of integrated community development. CS-8 is widely known as “the project” (*le projet*) among the target population and its goals, e.g., reduction of childhood morbidity and mortality are well known and highly valued. Self-management for health, combined with effective material support from the outside, is perceived as a major asset for community development by the recipients themselves.

Mali CS-8 is designed with a strong focus on self-reliance of the VHCs, manifest in the committee level interventions by the FTs. As CS-8 promotes the self-reliance of VHCs, it fosters overall community self-reliance. With its special focus on promoting maternal health, it enables women to better understand many of the health and nutrition needs of their families. However, health practice is shaped by social, cultural, and economic factors. It would be a simplified assumption to believe that new health-related knowledge and attitudes automatically lead to improved health practices.

Although women generally have a better knowledge of how to deal with certain health problems, they will only be able to translate these into practice if they do not involve costs or do not imply authorization by their husbands. Many women do not have access to family funds or are simply not allowed to decide upon health care expenses. Since reproduction is decided upon by husbands, women have little impact on the choice of family planning techniques, even if they acquire new knowledge about them.

Although many VHCs appear to be operating well, certain VHCs are not yet fully functional. Although this is mostly due to the maturity of the VHC, some VHCs are not really functional

even after several years of intervention. FTs report as important community barriers to creating and fostering sustainable VHCs: (i) village antagonisms, e.g., rivalries between families competing for village leadership; (ii) lack of motivation to engage in community-based health promotion activities; (iii) frequent migration of women in the border area with Côte d'Ivoire; (iv) weak village leadership; (v) low degree of alphabetization; and (vi) difficulties in motivating VHC members, particularly women, to gather during periods of intensive agricultural activities (planting and harvest seasons), as well as during funerals and traditional ceremonies.

5. Design and Implementation

The design of this project is appropriate to address many of the primary health problems in the intervention area through self-management for health. In addition, the project, in close collaboration with government health agencies, promotes the other major CS interventions, including immunization, antenatal care, birth spacing, and AIDS prevention.

5.1. Design

The project collaborates with a total of 250 VHCs: 206 in Kolondieba district and 43 in the new intervention area, the subdistrict of Zantiébougou. Although much needs to be done to fully include and foster activities in the new intervention zone, the project has followed this expansion carefully. The project has also clearly defined its objectives. Many of these objectives are quantitatively measurable. However, the project should develop or refine its measures of impact. In addition, qualitative measures could be developed, for example, for measuring the functionality of VHCs.

During years 1 and 2, the project, in addition to regular activities as outlined in the DIP, was moving ahead on several fronts: literacy, AIDS, and malaria. In literacy, more than 200 VHCs were interviewed to assess literacy status of each of its members. Education staff was expanded from three to seven for FY94. A two-year strategy for basic literacy training of VHC members was outlined. In AIDS, the project is working on a comprehensive AIDS-prevention curriculum in the training of FT's and nurse-midwives.

5.2. Management and Use of Data

The project's HIS is based on a complete registration of households (*Fiche d'enregistrement familial*, Appendix 4.1.). This information is used to establish lists of all children under 6 and all women of childbearing age (*Registre d'enfants* and *Registre des femmes en age de procréer*, Appendix 4.2. and 4.3.). These lists are then used to track the interventions for both coverage and health education, and to identify members of the target population who are defaulting or need additional attention on a given intervention.

There is also continuous recording of migratory and vital events at the village level by the FT, e.g., migration, death, and pregnancy outcome (*Rapport de Mariage-Changeement de Rbidence ou Emigration-Immigration.*, *Rapport de décès*, *rapport de resultat de grossesse*, Appendix 4.4.-

4.6.). The MOH has issued several forms that mothers use at the household level: an immunization card (*Carte de vaccination*, Appendix 4.7.) which is sold for CFA 100 and a growth chart (*Fiche de croissance*, Appendix 4.8.) which is given for free.

In addition to these cards, the project has established household based record cards for their use. These include a home visiting record (*Carte de visite familiale*, Appendix 4.9.), and a pre-natal consultation card (*Carte de visite à domicile des femmes enceintes*, Appendix 4.10.).

Between 1987 and 1990 the system was managed by hand. Since 1990, three data entry clerks and one HIS manager do the data entry and analysis. The project routine HIS is fully functional now. Unfortunately, the current software in use (ProMIS, Version 1) does not process or present information easily. A revised version of the software which addresses this problem is reported to be nearly complete and should be available shortly. The information collected in the system is generally relevant and useful for monitoring progress against the objectives (aggregated information in the monthly reports, Appendix 4.11.) and for assuring that services reach the target population (individualized household level coverage and educational content information).

The project is collecting a vast amount of data with a large set of data collection forms. Most of these data seem useful but they have not yet been fully exploited analytically. The project's HIS is one of the best NGO-based health information systems in the country and has the potential to become a model for other primary health care and child survival projects. The project's HIS has recently been thoroughly reviewed and evaluated by CERPOD, a national NGO. The evaluation found the HIS appropriate but suggested changes in regard to data collection and data entry, particularly in regard to tracking individuals who migrate or move between villages and districts. A detailed report has been written. Most of their recommendations for improvement have already been taken into account. This MTE therefore did not consider it necessary to review the HIS in further detail.

There is yet no consideration, and therefore no systematic collection, of qualitative data, e.g., in regard to illness categories, signs and symptom recognition, etiological notions, and household decision-making criteria. Data from the HIS should also be better shared with counterparts and VHCs. Members of VHCs, for example, could be informed about the demographic or health profile of their village by appropriate village-based descriptive statistics.

5.3. Community Education and Social Promotion

In Mali CS-8, the balance between health promotion, social mobilization and service provision is appropriate. The project is based on community education through the work of FTs. Education and services are linked through educating VHCs and through village schools where basic health education is provided to children and adolescents. The project ensures, through constant training and retraining of FTs, that messages are consistent.

The project did not **develop**, pretest, or distribute printed health education material. The messages are based on oral presentations made by the FTs on the basis of their own training and

retraining. The project could further strengthen its use of culturally appropriate education material (e.g., by the Sahel-based NGO GRAAP) or develop other creative community education means such as theatre for development or other non-traditional and participatory education activities.

5.4. Human Resources for Child Survival

The following people are working in this child survival project:

- 2 physicians
- 6 supervisors
- 1 nutritionist
- 1 family planning expert
- 6 nurses
- 33 community health workers (family trainers)
- 1 HIS specialist and 3 data entry clerks

In addition to these salaried workers, an estimated 1500 unpaid community volunteers work within the VHCs. In addition, the project employs approximately 10 administrative and other staff in Bamako and Kolondieba. All staff are nationals. The Bamako-based field office director position is the only position filled by a non-national (see organigram, Appendix 5).

Interview data from this midterm evaluation indicate good overall work satisfaction and excellent working relationships within the project. The project has an adequate number and mix of staff to meet the technical, managerial, and operational needs of the current project.

5.5. Supplies and Materials for Local Staff

The local Kolondieba-based staff have adequate supplies to carry out their activities. There are five all-terrain vehicles for management staff, including Toyota double cabin pickup trucks. FTs use Peugeot motorcycles (*mobylettes*) to cover their villages. Supervisors and nurses, who cover entire subdistricts encompassing 30-70 villages, use Yamaha motorcycles. The project has purchased one motorcycle for each of the 34 family trainers and approximately 20 motorcycles for supervisors and nurses. Family trainers receive a monthly fuel allocation, based on their monthly workplan, get annual checkups, and are reimbursed for most repair and maintenance costs of their mopeds and motorcycles. The mopeds and motorcycles are being gradually sold to staff through a hire/purchase scheme.

The project's computer center is equipped with 4 computers (one 286, and three 386 computers) and one printer. Electricity is provided by a simple fuel-based generator that operates during working hours. There is no air conditioning to protect the computers. A constant source of electricity is highly desirable to assure constant availability of data and to prevent breakdowns.

The project is somewhat hampered by the inadequate local infrastructure in **Kolondièba**, the site of the main project office. The town is not electrified and there is only one phone line available through the postal service in **Kolondièba**. Mail service is slow and there is no fax line. During the rainy season, most of the roads are difficult to pass, particularly by project vehicles. Educational materials distributed to VHC members include village health booklets, growth charts, vaccination cards, and weighing scales.

5.6. Quality

Local SC/Mali project staff are highly motivated, well trained and competent. Technical knowledge and skills are adequate to carry out their child survival responsibilities. **Kolondièba**-based staff have been carefully recruited and include many outstanding and committed collaborators, some of them meriting promotion or other incentives. Computer training has already been given in the use of **ProMIS**, **MS DOS**, and **Lotus**. Training in **Reflex**, a simple database, and in basic demographics is planned for the remainder of 1994. Further computer training, e.g., in statistical packages such as **EpiInfo**, could be enhanced. In addition, technical assistance could be provided to enhance the staff's expertise in basic descriptive and analytic statistics and epidemiology.

The project management also showed interest in learning qualitative methods and qualitative data analysis. Short term training during this mid-term evaluation showed very promising results, for example in training staff to conduct and analyze focus group discussions.

5.7. Supervision and Monitoring

Field-based supervision and monitoring carried out in the Mali CS-8 project is consistent and adequate for assuring quality of services. There are monthly reports per sub-district to the project management. Each semester each project physician makes one supervisory visit to three sub-districts. Supervisors are constantly trained and retrained in supervision techniques. A set of supervision forms has been developed to assess degree of performance (Appendix 6). FTs generally consider their supervisors courteous and cooperative. The existing monitoring and supervision system should be appropriate for the remainder of the project.

5.8. Use of central funding

Administrative monitoring and technical support from the Save the Children Mali field office in Bamako has been appropriate in terms of timing, frequency, and needs of the field staff. The field office director and the project's health coordinator maintain a continuing dialogue to further improving the content and the direction of the project. Administrative and technical backstopping from the Save the Children headquarters has also been appropriate. Although this project is centrally funded, the SC/Mali office staff have developed good working relationships with USAID/Mali, particularly with its general development, NGO, and child survival coordinators. The amount of central funding for administrative monitoring and technical support is adequate. Funds were used for developing the DIP and several technical support visits.

5.9. **PVO's** use of technical support

The project received technical assistance from within the organization and in the form of consultations. Technical assistance from within the Save the Children organization is usually readily available. In addition, Save the Children encourages field site visits by staff members of other country offices. It thus provides a source of learning and contributes to a constant exchange of ideas.

During the first year, the project received the following technical assistance:

1. Dr. Katherine Kaye of Save the Children's health unit and Ken Herman, programmer of the **ProMIS**, conducted a training workshop in the use of Health Information Systems for the project's assistant coordinator and a computer specialist.
2. Dr. Michel Pacqué of the British NGO Sightsavers provided training of the project's staff for the community-based distribution of Ivermectin to combat onchocerciasis.
3. Dr. Karen Katz of Family Health International assisted SC/M with the analysis of family planning data.
4. In March 1993, the project received technical assistance by a computer specialist of CERPOD, the demographic center of the multinational Institut du Sahel, to set up a program for training in basic demographics for all SC professional staff.
5. In addition, CERPOD, in April and May 1993, carried out a re-census of the district as an independent check on the quality of the **ProMIS** data.

Further technical assistance could be used in strengthening the project's capacity to collect and analyze qualitative data.

5.10. Counterpart relationships

The project's main host country counterparts are (i) the Ministry of Public Health, Solidarity, and Senior Citizens (MOH) at the national level and its representatives and staff at the regional and local levels; (ii) the Groupe Pivot, an NGO health consortium; and (iii) communities via the VHCs at the local level.

(i) Government health agencies

National Level

The **Malian** Minister of Health, Commandant Modibo Sidibé, who visited the project zone early in 1993, was impressed by the project's health information system, the high vaccination coverage and reduced infant mortality. The minister praised CS-8 Mali on national television as an

excellent example for fostering primary health care in Mali in stating that “the dire health situation of our villages is not an inevitability.”

Regional Level

The director of the regional health administration in Sikasso, representing the health minister in Mali’s third region, has provided support throughout the project. At the regional level, SC participates in the annual planning meeting for the region. The project is currently working to replicate its approach in another district, Yorosso. At the level of the district of Kolondieba, the project collaborates with health center staff on the EPI and the Onchocerciasis programs. The project provides financial and logistical support for both programs (gasoline, and perdiems). Ivermectin distribution is carried out by the same EPI nurses and supervised by the same EPI supervisors. The Onchocerciasis program provides motorcycles for health center staff. Since the same staff are implementing the CS activities, the support of the Onchocerciasis program enhances the CS interventions. The health center director and his staff use SC data for planning their health interventions. Also, the data is used in their monthly/quarterly reports to the government.

SC’s CS-8 project has an essential complementary role with the MOH. MOH staff, if given appropriate resources, will be able to carry out the CS interventions after the end of the project. There is an open dialogue between the project and its counterparts; participation in implementation of activities, joint planning at the regional level, and joint planning in each zone between the ICPM and SC subdistrict staff.

(ii) Groupe Pivot

All CS collaborative activities in Mali go through the ‘Groupe Pivot’ which works very closely with the MOH. The ‘Groupe Pivot’ is a USAID grant given to SC/Mali to promote the capacity of local NGOs in planning and implementing CS programs.

(iii) VHCs

VHCs help project staff to implement project activities; training of mothers, monthly weighing, regular mobilization for vaccination, maintenance of the HIS, family planning in pilot villages. Also, VHCs have entire responsibility for the ORT component of the program (training, support, and follow up). No money is exchanged between the VHCs and the project. Materials in the form of notebooks and pencils are given to the VHC to collect health data. VHCs participate in SC literacy programs that increase their capacity to run CS interventions. There is an open dialogue and joint planning between the FT and the VHCs.

5.11. Referral relationships

The CS project’s preventive approach complements the curative services of government facilities in the area. Direct referral between the project and health center, however, does not exist. The

evaluation team made side visits to the health care center in Kolondieba, three health posts (*postes médicaux*) at the arrondissement level, and one community-financed village health center (CSCoM).

The governmental health care center (*centre de santé*) in Kolondieba is the foremost referral care site for the district. It was built as a dispensary (*dispensaire*) in 1959 and gained status as a health care center with the arrival of the first physician, in 1979. The health care center includes a maternity ward, two internal medicine wards, a surgery unit, a laboratory, and a hygiene and social service. The surgery unit conducts 700 surgeries per year, mostly hernias, appendectomies, and caesareans. There are approximately 300 hospitalizations and 400 deliveries per year at this health center. The hospital, with only one physician per 140,000 inhabitants, is largely understaffed. Evacuation of seriously ill patients from the villages poses a major problem, particularly during the rainy season. Due to the project Mali-Suisse, the diagnostic capacities of the laboratory are relatively good. The laboratory assistant, however, is overburdened with more than 1,300 analyses per year that he has to conduct.

Located in front of the hospital complex is the health care center of one of the subdistricts (*arrondissement du Centre*), led by a male nurse (ICPM). Each of the five subdistricts has a health care post (*poste médical*). 16 villages in Kolondieba district have village-financed community health care centers (*Centre de santé communautaire*, CSCoM) serving 10-12 villages or a population of 5,000, respectively.

Immunization is provided by the health centers and by mobile immunization teams. Vaccines are provided by the regional health authority in Sikasso. Health care staff report constant availability of BCG and DTP vaccines. Polio and anti-meningitis vaccines sometimes arrive with delay. The cold chain is reported to work well although health care staff complain about sporadically delayed deliveries of spare parts for the gas-run refrigerators and for the sterilizers. During a visit by the evaluation team leader to the Kolondieba health center, sachets of Oral Rehydration Salts were out of stock at the Kolondieba health center. Nationally produced ORS sachets sell for CFA 85 at one of the two nearby local pharmacies, a relatively high price for the rural population.

Dialogue between the project and referral sites is generally good. Project management normally participates at monthly staff meetings between the physician and his staff nurses at Kolondieba's health care center. Health care center staff interviewed by the evaluation team generally appreciate the project's "support" (*appui*). The project is in fact seen as an important support structure, particularly to the EPI program.

Vaccination calendars are generally prepared long in advance by health care center staff but are sometimes communicated too late to the family trainers. FT's provide village mobilization for immunization but are sometimes not present at the actual immunization outreach post, a fact criticized by some of the nurses. Coordination of activities at the peripheral level thus need to be improved. Feedback between the ProMIS and the immunization teams, e.g. on non-immunized children, should be improved.

5.12. PVO/NGO networking

SC's PVO/NGO network includes CERPOD (*Centre de Recherche de la Population et pour le Développement*), Sight Savers (Onchocerciasis program), UNICEF, the Dutch Cooperation (working at Yorosso), several US PVOs, and many local NGOs. In addition, the project collaborates with the CSComs supported by UNICEF. The project collaborates with Sight Savers on the Onchocerciasis program in Yorosso. The Dutch Cooperation will support SC to extend the project to a new district.

The Groupe Pivot/Enfance de l'Enfant, an NGO health consortium run by SC/Mali, coordinates all NGO health activities in Mali. Activities include general meetings, training, discussion of program issues, exchange of information and experiences, development of indicators (e.g., standard indicators to measure achievement of objectives). In October 1992, 30 local NGOs spent a week in Kolondieba to discuss and observe the work of SC and discuss the place of health activities in an integrated development program. The Groupe Pivot increases the network among PVO and increase the interaction between the MOH and NGOs working in health. Through the Groupe Pivot SC has gained considerable experience on how to play a mentor role for local PVOs.

5.13. Budget management

USAID Washington has allocated \$587,157 (\$706,350-\$119,193 indirect costs) to this Mali CS-8 project. A pipeline analysis conducted on April 26, 1994 (Appendix 7) shows relative overspending (53.7%) in the first 4 months of year 2 (October 1, 1993-February 28, 1994). In August of 1993, the Mali field office director noted that CS-8 funding would be "inadequate" to support the entire program. However, the 50% devaluation of the CFA franc on January 12, 1994, has led to relative budgetary stability. The project can now continue to progress towards its objectives with the remaining funding. At this point and at current spending rates, it seems the project will not be overspent by the end of the project. However, further effects of monetary devaluation on price inflation cannot be predicted at this point and will need to be monitored. According to CS-8's quarterly report (January-March 1994) "the devaluation has already increased the CFA prices of basic medicines, fuel, spare parts, and other items essential to preventive health logistics by between 40 and 100%".

6. Sustainability

As outlined in the proposal and in the DIP, the project aims for sustainability at three levels. At the level of the individual, lasting changes in health-related KAP are being promoted through health education measures; at the community level, community demand for health services is being fostered through self-reliant VHCs. Finally, at the government level, SC/Mali aims at strengthening the role of the VHCs as main "health-enhancers" and tries to establish its working relationships with the MOH in such a way that it will be responsive to the service demands of VHCs after the end of the project.

Certain components of Mali CS-8, however, are not intended to be sustainable. Paid FTs, for example, will be replaced by functioning VHCs; the role of nurse-midwives paid by the project will be taken over by trained TBAs; and the computerized HIS, used for sophisticated data analyses, is unlikely to be sustainable after the end of the project.

Sustainability at the level of the individual

This MTE already provides good evidence for considerable improvement of individual KAP in regard to health promotion and disease prevention. Many of the KAP-related indicators show considerable change when compared to the baseline survey. It is likely that individual knowledge is sustainable. It might also lead to increased demand for health services, particularly when met by improved health service quality.

Sustainability at the level of the community

From the beginning of the project, VHCs were involved in planning and implementation. During the planning phase, extensive meetings were held with community leaders to discuss village needs and the best appropriate strategies to address them. The VHCs are now involved in planning and implementation through an open dialogue and joint planning with their FT. In addition, this midterm evaluation used participatory appraisal techniques to assess local criteria for evaluating the success or non-success of the project, an approach very much appreciated by the village chiefs and members of the VHCs. During focus group discussions, members of VHCs reported that they are grateful for SC's presence. However, it needs to be seen that actual community priorities exceed are more concrete and include building clinics, establishing ambulance services, water sources, schools, etc.

As one of the steps undertaken to promote sustainability, family trainers, on the basis of the results of periodical evaluations, receive public recognition and financial incentives. In addition, supervisors are instructed to evaluate FTs' capacity to foster the competence, autonomy; and responsibility of the VHCs of the villages they serve.

As CS-8 promotes the self-reliance of VHCs, and improves their capacities to manage their own health problems, the project should lead to sustainability. There is already good evidence for sustainability of existing VHCs in many villages. VHC members universally express that they will be able to "apply what they have learned", e.g., water hygiene, nutrition education, and ORT. The role of hygiene as a health-enhancer is well understood and expressed by the saying "Hygiene is the basis of health" (*keneya be saniya kofe*). Again, sustainability depends on whether VHCs continue to serve as mediators between the village population and service delivery entities.

A serious problem is the increasing lack of motivation of trained and untrained TBAs. The majority of TBAs interviewed were unsatisfied with the fact that their work is not valued and remunerated by the population. UNICEF boxes are usually empty and fulfill symbolic rather than practical functions. Cost recovery for items of the delivery box is not assured.

The village-based HIS in many cases is still insufficient. VHC members will need to be better trained to use numbers and statistics for decision-making. In many cases, VHC members consider the health books not as a source of information but as a documentation, a “library”.

Villages with VHCs that function for more than two years generally were able to provide adequate answers to the four case studies examined during the focus group discussion. VHCs that only recently have been constituted are enthusiastic about the project but typically state that “we are [just] in the beginning of our training” (*Ni ye ko sira yira misila, ni min noko gana a la, a be sira don, a beta a yere ye*).

Self evaluation criteria include (i) perceived decrease of childhood morbidity and mortality; (ii) decrease of maternal mortality during childbirth; and (iii) improvement of hygiene around wells. Other VHCs used anecdotal episodes to evaluate the success of the project, e.g., weight gain of an infant after the mother has attended a nutrition session. Morbidity reduction of diseases preventable by immunization such as measles, pertussis is particularly valued. People recognize the absence of these diseases particularly since they inhibit mothers to work during the harvest season.

The relationship between modern and traditional medicine is seen as complementary. Traditional medicine is still being utilized before biomedical treatment is sought. Biomedical treatment is generally sought when traditional medicines fail. Modern pharmaceutical are known to act fast although they are more expensive. However, certain folk illnesses are considered to be treatable only with traditional medicines.

Sustainability at the government level

SC preventive health activities are designed to complement MOH health service delivery. The project mobilizes the population in regard to health promotion, promotes improved home case management of certain diseases, and fosters demand for government health services. In the case of the EPI program, SC staff cooperate with the local health administration in actual service delivery at immunization outreach points.

The project is already highly valued by the host government institutions and beneficiaries. Mali’s health and education ministers visited the project, and the regional and local health authorities generally very much appreciate the project’s assistance to their EPI service delivery. The project also has a positive reputation in terms of effectiveness. Fostering its collaborative relationship with the regional and local health administration is crucial for assuring sustainability after the end of the project. Staff of local health institutions comment that they hope to involve VHCs in mobilization activities after the end of the project.

Financial sustainability

Since the work of VHC members is on a voluntary basis, the project’s main component seems to be sustainable. Services by trained (as well as untrained) traditional birth attendants are

currently not sufficiently rewarded by the village population. TBAs in most of the villages visited by the evaluation team expressed frustration about people not willing to pay the delivery fee. It is unpredictable at this point whether immunization costs are sustainable after the end of the project.

7. Recurrent cost and cost recovery mechanisms

Cost recovery

Cost recovery mechanisms implemented by CS-8 include: (i) the selling of growth monitoring and vaccination cards to families; (ii) promotion and establishment of village pharmacies; (iii) MOH contribution to the immunization campaigns; and (iv) a hire-purchase scheme through which motorcycles used for the project are purchased by project staff.

Communities in Kolondieba district show increasing willingness to pay for preventive health services. For example, 16 CSComs have been financed by villages. In October of 1993, 4 of 9 “advanced strategy” EPI nurses in Kolondieba district were paid by the villages rather than by the Ministry of Health.

8. Recommendations

1. Strengthen the integration in the new intervention zone (Zantieboukou) through literacy and numeracy programs and further fostering its village health committees. Limit the gap in knowledge and functionality of VHCs between the old and new intervention zone before the end of the project.
2. Foster collaboration between the project and government health care structures, at the district and subdistrict level but also at the regional and national level (Regional health authority, MOH). Improve feedback between health care personnel and the project's health information system.
3. Foster concerted action at the subdistrict level, particularly in regard to immunization outreach posts (Vaccination de strategie avancee), and to prenatal counselling. Consolidate the working relationships with health center staff and the project.
4. Develop and refine valid measures for health care status and program impact, e.g., an improved monitoring system, and an index of family health and welfare.
5. Target training of SAVE Kolondieba staff in statistics and computer literacy. Constantly update technical knowledge of FTs.
6. Train VHC members in better maintaining their village-based health information system (village health care books).
7. Improve feedback between SAVE/Kolonodieba's health management information system and the VHCs. Train village health committees in appropriate village-level statistics. These could use methods like Participatory Rural Appraisal (PRA), e.g., piles of pebbles, baskets of well babies and malnourished babies, etc.
8. Address the problem of demotivation of TBAs. Encourage discussion within VHCs to address cost-recovery within their villages.
9. Disseminate the project's general approach to integrated self-management for health, its activities, and results to date. More project documents should be written in or translated into French. Dissemination could be facilitated through video productions, publications in appropriate journals and publication series, and the establishment of a documentation center at the SAVE offices in Kolondieba. The project should also take into account the social science related literature on rural Mali.

10. Develop creative ways to integrate innovations in education (e.g., village schools) and health programming, e.g., by adopting UNICEF's child to child training. Approach adolescent girls' health through innovative curricula in SC/M's villages schools (ecoles du village).
11. Install a dependable electricity source for the computerized HIS, potentially by solar **power.**
12. Change objective "50% of women will receive two prenatal visits and 40% one postnatal visit" to "50% of pregnant women will receive one prenatal visit and 40% one postnatal visit. "
13. Change objective "60% of girls 12 to 19 years of age will know their nutritional needs and will be able to identify practices that ensure their normal physiological needs" to "60% of girls 8 to 14 years of age enrolled in village schools will know their nutritional needs and will be able to identify practices that ensure their normal physiological needs."
14. Change objective "60% of adolescents aged 12 to 19 years will know three methods of AIDS prevention and STDs" to "60% of adolescents aged 8 to 14 years enrolled in village schools will know three methods of AIDS prevention and STDs."

9. Executive summary

The midterm evaluation of the Save the Children (SC/US) Mali Child Survival (CS) VIII project was conducted from May 9 to 20, 1994. The evaluation team was composed of representatives of Harvard University, Cambridge, USA (Johannes Sommerfeld, PhD, MPH, team leader), of **USAID**, Bamako, Mali (Dorothy Stephens, MHS), of the **Malian Ministry of Health**, Regional Health Administration, Sikasso (Oumar Bah, MD), of Save the Children (SC) US headquarters (Ahmed Zayan, MD, MPH), of SC Haiti (Ludzen Sylvestre, MD), and SC Mali (Peter Laugham, Fode Doumbia, MD, Issa Sidibé and Souaïbou Sako, MD).

The midterm evaluation used a mixture of rapid assessment and participatory rural appraisal strategies involving both qualitative and quantitative methodologies. Qualitative methods included (i) focus group discussions with village health committees (**VHC's**), and (ii) a series of semi-structured interviews with SC Kolondieba staff, including the field coordinator, supervisors, nurses, and family trainers. The qualitative methodology involved site visits to 11 villages in two selected arrondissements (Zantiebogou and Kadiana) and to health centers at the district and subdistrict level. Semi-structured interviews were also conducted with trained traditional birth attendants, and nurses of both governmental and community-financed health care centers. Quantitative methodologies included a survey of 210 mothers aged 15 to 49 years with a child under two. The survey was based on the EPI two-stage cluster sampling approach (7 randomly selected respondents in 30 clusters) and was conducted by 10 teams of three family trainers, respectively.

The evaluation team was able to evaluate progress in project implementation in relation to various indicators relating to community participation, sustainability, counterpart relationships, and changes of health related knowledge, attitude, and practices. Impact evaluation of morbidity and mortality parameters is considered preliminary but indicates significant impact on child mortality.

The Mali CS-8 project is a three year project (October 1992-1995), with a USAID/W funding level of \$587,157, and a SC contribution of \$235,744, based in the cercle de Kolondieba, 250 km from Bamako, the Malian capital. The project's child survival activities are incorporated in a wider set of community development activities, i.e., agriculture, literacy and numeracy, credit, water management, and primary schooling, supported by the promotion of women.

The project has made considerable progress in conducting training, establishing village health committees, and developing the coordination and collaboration with government and NGO counterparts needed to reach its objectives. Many village health committees have made substantial progress in their ability to understand and manage their own health problems. Although much has been accomplished, there is more to do in the area of further training and mobilizing members of village health committees, particularly women. For example, village-based statistics and the feedback between the project's health information system and the VHC should be incorporated. In villages with functionable village health committees the evaluation team found a considerable degree of self-management for health.

The **Mali CS-8** project is an extremely valuable project for the region and is much appreciated by recipients and counterparts. The project can be considered a model project for **NGOs** integrating child survival activities in a larger framework of participatory community development. Recommendations are numerous, and include the need for further strengthening activities in the new intervention zone (Zantiebougu), coordinating activities at the periphery; refining valid impact measures; and further training of family trainers.

In conclusion, CS-8 Mali is an excellent example of an innovative and truly integrated community development project. Its health activities honor Alma Ata principles for achieving health for all by the year 2000. Mali CS-8 exemplifies primary health care at its best. Save the Children, as an NGO, has developed a sustainable and pioneering model for integrating child survival activities in a larger framework of participatory community development. **USAID** is to be congratulated for supporting the CS-8 Mali project.