

PROJECT HOPE

**IMPROVING MATERNAL CHILD-HEALTH
IN THE HUALLAGA VALLEY OF PERU:
A COLLABORATIVE PROJECT WITH
THE CENTER OF PUBLIC HEALTH OF THE
UNIVERSIDAD PERUANA CAYETANO HEREDIA AND
THE MINISTRY OF HEALTH-REGION SAN MARTIN**

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MIDTERM EVALUATION REPORT: September 30, 1996 - September 29, 1998

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Region San Martin, Perú

Project duration:

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TABLE OF CONTENTS

	<u>Page</u>
1. SUMMARY AND RECOMMENDATIONS	1
A. Evaluation Methods	1
B. Accomplishments and Constraints	1
C. Conclusions	4
D. Recommendations	4
2. PROJECT BACKGROUND	7
A. Dates of Project	7
B. Interventions, Objectives, Inputs and Outputs	7
C. Project Site and Population	11
D. Project Design	14
E. Changes Since the DIP	16
3. QUALITY OF PROGRAMMING	17
A. Coordination	17
B. Access to Services	17
C. Project Staff	17
D. Supervision	18
E. Comments	19
4. QUALITY AT THE COMMUNITY LEVEL	19
A. Educational Messages	19
B. Project Assessment	20
C. Effectiveness in Reaching Target Population	20
5. QUALITY OF HEALTH WORKER AND FACILITY SERVICES	21
A. Information System	21
B. Tools	21
C. Materials and Supplies	21
D. Health Promoters Performance	22
E. Conclusions Regarding Effectiveness	22
6. CAPACITY BUILDING AND SUSTAINABILITY	23
7. TECHNICAL AND ADMINISTRATIVE SUPPORT	25
A. Technical Assistance	25
B. Headquarters Backstopping	26

8. ACCOMPLISHMENTS AND CONSTRAINTS	26
A. Implementation by Intervention	26
B. Implementation Schedule	31
C. Important Achievements	31
D. Factors Pending Progress	33
9. ISSUES IDENTIFIED BY EVALUATION TEAM, PROJECT, OR PVO	34

APPENDICES

Appendix I:	List of Evaluation Team Members
Appendix II:	Maps of Project Target Areas
Appendix III:	IEC Printed Materials
Appendix IV:	Results of KPC Midterm Survey
Appendix V:	Pipeline Analysis

ACRONYMS

AB PRISMA	Asociación Benéfica - Project in Information, Health, Medicine, and Agriculture
ARI	Acute Respiratory Infection
CEPCO	Eastern Center of Studies and Community Promotion
DCM	Diarrheal Case Management
CHV	Community Health Volunteer
CPH	Center of Public Health
CS	Child Survival
CURMI	Rainbow Institution (CURMI is a quechua word)
DIP	Detailed Implementation Plan
DIRES-SM	Regional Health Office-San Martín, Ministry of Health
FP	Family Planning
GALMES	Exclusive Breastfeeding Support Groups
GM	Growth Monitoring
HKI	Helen Keller International
HIS	Health Information System
IEC	Information, Education, and Communication
ITDG	Intermediate Technology Development Group
KPC	Knowledge, Practice, and Coverage
LOP	Life of Project
MCH	Maternal and Child Health
MINSA or MOH	Ministerio de Salud; Ministry of Health
NGO	Non-Governmental Organization
ORT	Oral Rehydration Therapy
ORS	Oral Rehydration Salt
PANFAR	Program of Food & Nutrition for High Risk Families
PASA	Program for Support of Food Security
PREDEMI	Micronutrient Deficiency Prevention Program
PRONAA	National Program of Food Support
PVO	Private Voluntary Organization
RSM	Region San Martín
UBASS	Administrative Basic Unit for Health Services
UNSM	Universidad Nacional San Martín
UPCH	Universidad Peruana Cayetano Heredia
UROC	Oral Rehydration Units in the Community

**CS-XII Perú – Midterm Evaluation Report
Project HOPE
October 1996 - September 1998**

1. Summary and Recommendations

A. Evaluation Methods

The midterm evaluation (MTE) was carried out by a team composed by personnel from Project HOPE in Perú, Universidad Peruana Cayetano Heredia (UPCH), under the leadership of an external evaluator. It also had the participation of Region San Martín officials from the Ministry of Health, and personnel from NGOs working in the project's area. The MTE activities were conducted from August 24 to September 4 1998, using a participatory evaluation approach. Activities included:

- Survey of a representative sample of households from two groups: target communities and communities not receiving project interventions
- Food consumption survey in a sample of households corresponding to the HOPE target area.
- Interviews with HOPE personnel
- Interviews with CHVs and MOH staff
- Interviews with representatives of the Ministry of Education and local NGOs working in the project's area.

Preliminary findings were discussed by the external evaluator and the evaluation team before writing the final report, in order to enhance the analysis and therefore give more solid conclusions and recommendations.

The external evaluator also reviewed all the documentation available: original proposal, detailed implementation plan (DIP), quarterly reports, and first annual report. A complete list of those involved in the evaluation activities is detailed in Appendix I.

B. Accomplishments and Constraints

This project is a traditional Child Survival (CS) project with four interventions: nutrition, promotion of exclusive breastfeeding, diarrheal disease case management, and family planning. The focus of the project has been to develop awareness about children's health and nutrition among community members. HOPE has been successful in training community members and staff from local institution. This strategy offers a singular advantage: sustainability.

The association with UPCH has allowed the project to benefit from the contribution of relevant research activities. It has also received support for the design of its interventions, as well as data analyses.

In weighing the achievements of the project, it is important to consider that, because of the high dispersion of the population in the target area, this project is a rural one, with all the challenges associated with this type of setting.

The most important achievements of the project can be divided into three areas:

COMMUNITY ORGANIZATION

The team has been successful in gaining the participation of community leaders in the identification of health problems, election of volunteers, organization of support groups—exclusive breastfeeding support groups and health committees—and the use of local resources to collaborate with HOPE activities. Among the most powerful achievements of this approach are the election, training and support of community health volunteers (CHVs).

It is important to point out that, as in other rural areas of Perú, health promoters trained by the Ministry of Health existed before HOPE arrived, as part of a strategy to cover areas without formal health services. HOPE has brought an important change to the MINSA approach with regard to health promoters responsibilities and identification with the community. From the point of view of health promoters, HOPE's approach is characterized by its horizontal and participatory style, which has resulted in a more intense involvement of community members, frequently having them leave their work or household duties to run their activities as health promoters, a task that they have accepted and implemented.

Other achievements are the creation of Exclusive Breast Feeding Support Groups (GALMES, in Spanish) as well as Health Committees. The former are the most active, probably because they are formed by women of fertile age, usually more concerned about their children's health care. At the time of this evaluation, GALMES members showed special interest and willingness to participate, not only to enhance their knowledge about health and nutritional issues, but also as a channel to express their opinions in social matters within their communities.

COLLABORATION WITH MINSA AND OTHER INSTITUTIONS

As part of the approach used by the HOPE team, the personnel of the Ministries of Health, Education, Agriculture, and some local NGOs working in the project target areas, were involved and participated in activities implemented by HOPE. This synergy is due to the fact that all these development agencies identify with the objectives of the project. Conversely, the HOPE personnel have participated in supporting the activities of these agencies as far as their objectives were related to the project.

By this manner, the project has strengthened the position of these agencies, increasing the demand for health services and providing opportunities for local collaboration and technical coordination in aspects related to health and nutrition.

MICRONUTRIENT INTERVENTIONS

As it was planned in the DIP, the project has developed a considerable range of efforts directed to the micronutrient problem. The first was a micronutrient status assessment in the baseline study, which showed deficiencies in iron, vitamin A and iodine.

Based on the food consumption baseline data, the project has developed two kinds of micronutrient interventions: diet diversification and fortification.

Despite the availability of resources, supplementation was not chosen as an alternative, because the Regional MOH authorities considered it a non-sustainable effort.

The diet diversification intervention incorporates the use of green leaves, local products rich in vitamin A, and animal blood in the diet of the families. Perhaps the most successful approach was the development and test of desiccated hemoglobin fortified products. This development is due mainly to the technical support of the Universidad de Lima, CURMI, UNSM, PRONAA and the Center of Public Health's team from UPCH, leading the process of food fortification, including diagnosis, food consumption, availability studies, and the development of iron fortified food, as well as the effectiveness and acceptability studies. The project is at the moment in the process to transfer the developed hemoglobin food fortification technology to a medium sized enterprise (Molinos del Rey).

It is important to mention that an enterprise is marketing a banana flour based product, fortified with iron sulfate. This product is advertised in the whole Region, emphasizing its iron contents and increasing the odds for changes in the iron consumption practices of the population.

Despite outbreaks of social instability and guerrilla activities in some parts of RSM, the project was able to start on time since the beginning and throughout the first two years of implementation. Due to the dispersion of target communities, the project is running somewhat behind the schedule regarding the number of communities to be served. It is probably that some of the proposed activities will not be completed within the project frame, but the impact objectives setup in the DIP will probably all be achieved.

The main constraints that the project faces are:

- Although the project was conceived with a close participation of DIRES-SM, such a relationship did not continue during the implementation of the project. This is an issue that came out very clear from the MTE. However, after the end of the MTE activities, DIRES-SM and Project HOPE agreed to re-start a close coordination of activities for the remaining 24 months of the project. A meeting with the Director of DIRES-SM, Dr. Miguel Vela López, together with the directors of all three target UBASS and the project coordinator and project consultant was scheduled for September 22, 1998. Such a meeting marks the beginning of a compromise between Project HOPE and DIRES-SM towards a joint implementation of activities in the next two years. DIRES-SM is aware of the importance of its participation in this CS project in order to obtain sustainability.

- The project lacks a functional HIS. Even though the project has generated a great deal of information, there is no updated computerized system that monitors the different activities of the project.
- Student rotations from UPCH have not been implemented as planned. One of the main constraints is the fact that outbreaks of terrorism activities have been occurring on and off during the first two years of implementation, with a more intense guerrilla activity in the last 10 months. Therefore, UPCH Council has been reluctant to send students to RSM.
- Project personnel turnaround has also been a problem for the project. One nurse/health educator, the project coordinator, and the program administrator decided not to renew their employment contracts between the first and second year.
- The geography and the climate of RSM continue to be a serious constraint for the timely implementation of activities. This situation is exacerbated in the UBASS San Martin, where project staff spend up to 10-hour trips by car, boat and on foot to reach target communities.

C. Conclusions

QUALITY OF PROGRAMMING

The project has built a network of collaborators around their activities in the field, but there is no evidence that this collaboration has been formally coordinated with DIRES-SM. The project has made extremely good progress in the communities served during the first year, training CHVs and promoting the creation of support groups, but it is still necessary to integrate these community resources with the activities of other health agencies, mainly from DIRES-SM, in the remainder of the project.

Despite the fact that HOPE has regularly reported its activities to DIRES-SM, neither has participated in the planning activities of the other. This lack of integration results in a waste of resources that could be shared and is a weakness, because collaboration is based on personal relationships rather than institutional and technical agreements for a coordinated implementation of activities.

The project has a weak monitoring system because the information recorded in the first 18 months is dispersed, difficult to manage, and not very well known by the project staff. The design of a monitoring system must be closely related to the needs of information for the planning of activities.

The relative effort allocated to the four interventions might be reviewed in order to integrate them into a conjugated strategy for the approach to communities. Thus, it is recommended to increase the percentage of efforts given to the nutrition intervention, and to reduce by the same percentage the efforts in FP activities.

It is possible that using the same strategy and team size, the area to be covered by the end of the third year, according to the DIP, is too large to meet the objectives. The allocation of personnel to the three zones should consider the higher dispersion of communities in Banda of Shilcayo.

QUALITY AT THE COMMUNITY LEVEL

The main intervention of the project is the promotion of healthy practices through the CHVs and support groups. Since there is an average of more than two CHVs for each community served in the first year, it is possible to say that the project has installed a functional basis for its services.

The messages used in the CHVs training and in the materials for mother's education follows the DIP. Many communication materials used were adapted from messages developed by other nutrition programs, while others were newly developed by the project staff, and were validated with the target population.

The effectiveness of the transmission of messages has been assessed in the case of CHVs, with pre and post tests, and in the general population of mothers with KPC surveys. Knowledge about the duration of exclusive breastfeeding, dehydration signs, and practices—like the use of liquids and consultation of the CHVs during episodes of diarrhea—were improved with respect to the baseline situation in the target communities as compared with communities without project target interventions.

QUALITY OF HEALTH WORKER

The CHVs have had some limitations in reaching all the families in their communities, because some families reject anything related to changes in the child care practices, and question the value of the education intervention compared to other nutrition programs in the area, which provide food supplements.

However, during the first year, HOPE staff was able to attract the interest of the community by establishing strong working relationships with community leaders, local officials, and community members so that in most cases all project staff were treated as part of the communities.

Of the training events for the project staff, the participatory education seems to have the greatest impact, because the skills they obtained were reported as exceptionally useful tools for the development of the CHVs workshops and for the quality of the HOPE team approach.

D. Recommendations

The main problems and concerns identified during the MTE and the respective recommendations are included in the following table. The implementation of these recommendations was discussed as part of the review and planning process after the MTE.

Recommendations within this document are printed in *bold italics*.

Problem/Concern Identified	Recommended Action To Be Taken
<p>1. Coordination with DIRES-SM authorities The project has not become a part of the planning activities of the DIRES-SM. For sustainability, it is necessary that the project activities are included in the maternal and child health strategy of the DIRES-SM.</p>	<p>The project should review its strategy of working with the DIRES-SM. It is very important to remain aware of the strategic orientation of the DIRES-SM, in order to be aware of its priorities, to contribute with the project resources, and to incorporate the community based intervention in the DIRES-SM plan.</p>
<p>2. Monitoring The project has a weak monitoring system for monitoring progress. There have been some isolated efforts, but to date the HIS is not a tool for management.</p>	<p>A planning method needs to be used to identify the main objectives, activities, resources, and timeline of the project. Then critical steps and indicators to monitor will have to be identified before designing the monitoring system. The monitoring system should include a schedule to discuss the obtained information, with critical decisions and decision-makers identified.</p>
<p>3. Target communities The presence of the HOPE team remains necessary to strengthen the training and encourage the work of CHVs and support groups. During the next half of the project, 50% of communities still are targeted for coverage. With the actual size of the project team, it is impossible to cover all of the planned area.</p>	<p>Review the approach and objectives of the HOPE presence in the communities already working, in order to save human resources for the new communities. The new approach should include a stronger participation of DIRES-SM. The workload of educators should be re-distributed among the UBASSs, considering physical access and number of communities.</p>
<p>4. Community participation The participation of the community in the maternal and child health activities is constrained by the authorities, CHVs, members of the support groups and some families. In some cases, there is some confusion about the objectives, and groups are waiting the moment when HOPE starts to distribute gifts (food, medicines, etc). The project needs to consolidate the importance of community participation in a health or development program, as the true owner of the intervention.</p>	<p>In a review of its strategy, the project should consider an efficient way to broaden the implementation of its activities in the target communities. The interest and awareness about maternal and child health/nutrition issues should become part of the community organization agenda, as a step for further social development. The project should consider the use of media, social meetings, or alliances with local leaders and institutions (Ministry of Education, NGOs, etc) to increase the coverage of its intervention.</p>
<p>5. Information system Processes information is incomplete. Sometimes non-useful information is recorded. There were neither protocols nor indicators. The project lacks a responsible person for the management of the information system.</p>	<p>After having revised its monitoring and evaluation plan, the project should define its data collection forms and process the necessary data. The responsible staff member for each step should be identified and supervision schedules setup.</p>

Problem/Concern Identified	Recommended Action To Be Taken
<p>6. Definition of goals and objectives Some of the goals and objectives proposed in the DIP were not supported by data from the baseline survey (e.g. changes in the exclusive breastfeeding in children less than six months of age). Some objectives cannot be monitored since the measurement instruments have changed and now do not include the necessary information.</p>	<p>Review the goals and objectives on the basis of available information and priority of the problems. Develop an information system that makes it possible to monitor the outputs.</p>

2. Project Background

A. Dates of Project

This project was funded for the period of September 29, 1996 to September 30, 2000. Project activities began in October 96.

B. Interventions, Objectives, Inputs and Outputs (excerpts from the approved DIP)

TABLE A: FIELD PROJECT SUMMARY

PVO/Country: Project HOPE/Perú
 Cooperative Agreement No.: FAO-0500-A-00-6056-0
 Project Duration:
 Start Date: September 30, 1996
 Estimated Completion Date: September 29, 2000

A.1. PROGRAM EFFORT AND USAID FUNDING BY INTERVENTION

Intervention	% of total effort ⁽¹⁾	USAID Funds in \$ ⁽²⁾
Immunization		
Nutrition/Micronutrients	40	\$400,000
Breastfeeding Promotion	25	\$250,000
Diarrhea Case Management	25	\$250,000
Pneumonia Case Management		
Malaria Control		
Maternal and Newborn Care		
Family Planning	10	\$100,000
HIV/AIDS Prevention		
Others (specify)		
Total	100%	\$1,000,000

- (1) Estimate the percentage of total effort (from USAID and PVO match funding) the program will devote to each intervention to be implemented.
- (2) Estimate in US dollars (not in percent) the amount of USAID funding (excluding PVO match funds) the program will devote to each intervention.

A.2. BENEFICIARY POPULATION PER YEAR

Population Age Group	Estimated Number of Beneficiaries
Infants (0-11 months)	2,581
Children, 12-23 months old	2,615
Children, 24-59 month old	8,006
Total Children 0-59 month olds	13,202
Women, 15-49 years ⁽³⁾	24,763
Total Beneficiaries	37,965

- (3) Potential beneficiaries are the individuals eligible to receive USAID Child Survival funded services, to whom the program will provide services intended to benefit primarily that individual. Women (ages 15 - 49) should only be included as beneficiaries if the program includes a goal of reducing maternal mortality through improved emergency obstetric care or if the program includes interventions for family planning or for HIV/AIDS.

Table B: Program Goals and Objectives

Objectives	Measurement	Inputs	Outputs	Measurement of Outputs
1. Increase from 0% to 20 % exclusive breastfeeding for the first 6 months of age of children.	<ul style="list-style-type: none"> - Monthly, annual report - Midterm and final evaluations 	<ul style="list-style-type: none"> - Training of promoters and MINSA staff - Provision of educational messages about exclusive breastfeeding - Establishment of support groups for exclusive breastfeeding 	<ul style="list-style-type: none"> - 400 trained promoters - 85 MINSA staff trained - 200 support groups working 	<ul style="list-style-type: none"> - Health information system - Supervision
2. Increase from 3 to 5 the average number of meals offered daily to children less than 2 years of age.	<ul style="list-style-type: none"> - Midterm and final evaluations 	<ul style="list-style-type: none"> - Training of promoters and MINSA staff on nutrition (nutritional value, frequency, etc.) - Educational campaigns 	<ul style="list-style-type: none"> - 400 trained promoters - 85 MINSA staff trained 	<ul style="list-style-type: none"> - Health information system - Supervision
3. Decrease prevalence of growth faltering from 55% to 40%	<ul style="list-style-type: none"> - Growth monitoring - Final midterm 	<ul style="list-style-type: none"> - Training of promoters and MINSA staff in nutritional monitoring 	<ul style="list-style-type: none"> - 400 trained promoters - Children less than 2 with growth monitoring from 200 communities 	<ul style="list-style-type: none"> - Health information system - Supervision
4. Increase number of children with a diet that includes adequate proteins (5/week or 1/day) and calories	<ul style="list-style-type: none"> - Midterm and final evaluations 	<ul style="list-style-type: none"> - Training of promoters and MINSA staff in nutrition, nutritional value of food 	<ul style="list-style-type: none"> - 400 trained promoters - 85 MINSA staff trained 	<ul style="list-style-type: none"> - Supervision - Demand of fortified product
5. Increase dietary intake of micronutrients, including Vit. A, and iron sources to 3 times per week.	<ul style="list-style-type: none"> - Midterm and final evaluations 	<ul style="list-style-type: none"> - Training of promoters and MINSA staff in micronutrient deficiency (Vit.A, iron, and iodine) - Food fortification 	<ul style="list-style-type: none"> - 400 trained promoters - 85 MINSA staff trained - Acceptance of fortified products by the community 	<ul style="list-style-type: none"> - Supervision - Demand of fortified product
6. Decrease the prevalence of anemia in children under 3 yrs from 44%; and 3-6 yrs from 52% to 35%	<ul style="list-style-type: none"> - Final evaluation 	<ul style="list-style-type: none"> - Training of promoters and MINSA staff in micronutrient deficiency (Vit.A, iron, and iodine) - Food fortification 	<ul style="list-style-type: none"> - 400 trained promoters - 85 MINSA staff trained - Acceptance of fortified products by the community 	<ul style="list-style-type: none"> - Supervision - Demand of fortified product

Objectives	Measurement	Inputs	Outputs	Measurement of Outputs
7. Decrease the prevalence of serum retinol deficiency from 7.6% to 4.0% fo <10 µg/dl, from 68% to 50% for <20µg/dl	- Final evaluation	- Training promoters and MINSA staff in micronutrient deficiency (Vit.A, iron, and iodine) - Food fortification	- 400 Trained promoters - 85 MINSA staff trained - Acceptance of fortified products by the community	- Supervision - Demand of fortified product
8. Increase number of mothers using ORS from 19% to 30%	- Midterm and final evaluations	- Training promoters about DDC according to MINSA norms - Dortify UROCs	- 400 Trained promoters - 200 UROCs working	- Health information system - Supervision
9. Increase number of mothers who give more liquids who give more liquids during a diarrhea episode from 25% to 60%	- Midterm and final evaluations	- Training promoters about DDC according to MINSA norms - Strengthen UROCs	- 400 Trained promoters - 200 UROCs working	- Health information system - Supervision
10. Increase number of mothers who give equal or more food during a diarrhea episode from 63% to 80%	- Midterm and final evaluations	- Training promoters on food administration during and after a diarrhea episode	- 400 Trained promoters - 85 MINSA staff trained	- Health information system - Supervision
11. Increase number of mothers who give food more often and in smaller feedings after a diarrhea episode from 34% to 50%	- Midterm and final evaluations	- Training promoters in appropriate feeding practices during and after a diarrhea episode	- 400 Trained promoters - 85 MINSA staff trained	- Health information system - Supervision
12. Decrease prevalence of diarrhea in children between 6-36 months from 67% to 50%	- Midterm and final evaluations	- Training promoters in prevention during diarrhea episodes	- 400 Trained promoters - 85 MINSA staff trained	- Health information system - Supervision
13. Increase child spacing to 2 years in families with children less than 3 years	- Midterm and final evaluations	- Training promoters in family planning promotion and counseling	- 400 Trained promoters	- Health information system - Supervision

C. Project site and Population (excerpts from the approved DIP)

LOCATION

Maps of the project area are found in Appendix II. The first shows the project area in relation to the rest of the country and the three target provinces within Región San Martín. Maps showing each Administrative Basic Unit for Health Services (UBASS) in target areas and the location of health facilities are also included in Appendix II.

LOCATION DESCRIPTION

The project is located in Region San Martín (RSM) of central Perú on the eastern slope of the Andes along one of the main tributaries of the Amazon, the Huallaga River. For administrative purposes the Ministry of Health (MOH) divides Region San Martín into Administrative Basic Unit for Health Services called UBASS, in Spanish. The project includes three sites: the UBASS El Dorado, and UBASS Lamas which include nearly all of the two mountainous provinces of the same name, and the lower part of UBASS Banda of Schilcayo (soon to be renamed UBASS San Martín) which is a very rural and inaccessible region along the lower Huallaga River and its tributaries. Out of the total twelve health units in RSM, these three UBASS are among the four with the poorest health indicators. There are approximately 200 communities in the combined target area, only three of which has a population of over 500. Most communities have less than 100 residents.

In the 1980s, this region was the world's largest source of the coca leaves which are used to make cocaine. Coca became a monoculture, almost totally replacing the basic food crops of the previous subsistence agriculture. The small farmers cultivated coca for its cash value, unaware of its final destination or use. They received a tiny fraction of the final street value. The process of converting to alternative crops, which have a lower cash value, is slow.

Because of the U.S. government's successful efforts in coca eradication, USAID is actively involved in social and alternative economic development in the region. The USAID Mission specifically asked HOPE to consider a child survival project in RSM, one of its priority areas. No other U.S. PVO is working in this part of Perú.

Inhabited by subsistence farmers and, until recently, geographically isolated from the centers on the west side of Perú, Region San Martín has traditionally suffered from high infant and maternal mortality, and lack of adequate services in health and education. The situation was exacerbated in recent years by guerrilla movements and the economic and social upheaval caused by the decline of the coca industry.

Although coca provided cash income for small farmers and field workers, for the most part, they did not make enough profit to significantly improve their standard of living. The National Institute of Statistics and Research (INEI) and Projects in Information, AB PRISMA, one of the largest NGO in Perú, conducted a survey of socio-economic

conditions in 1991 and 1992 (ENDES) which illustrates the quality of life for the people of Region San Martín, even after a decade of coca production. There is an average of 3.7 persons for each room in the house. Nearly two-thirds of the homes have dirt floors, and only 39.6% have access to piped water. This picture is especially grim considering that the census included the relatively affluent middle-class city of Tarapoto.

Transportation is a serious limitation in the project area, particularly in El Dorado where many communities can only be reached on foot or by horse and in Banda of Shilcayo, where virtually all access is by river. Local residents own balsa-wood boats. There are motor boats, which run regular routes and charge a fee, serving the major communities. The MOH owns motor boats to use for fieldwork. The project also owns one motor boat for transportation of project staff in this province.

Nearly all of the population is mestizo with small pockets of indigenous population found in Lamas. The native people now all speak Spanish and have access to schools and health care facilities. The project baseline survey and qualitative research found no differences in health practices and coverage between natives and mestizos.

In the project target area, only 15% of the women have never gone to school, according to the baseline survey. Forty-eight percent of the mothers interviewed have gone at least as far as fourth grade.

The following chart shows the available health statistics for each of the targeted provinces, the entire Region San Martín (RSM), and for Perú.

Health Indicators	Perú	RSM	Lamas	El Dorado	Banda of Sh.
Infant Mortality	43/ 1,000 ¹	56.6/ 1,000 ²	60.5/ 1,000 ²	93.8/ 1,000 ²	53.7/ 1,000 ³
Maternal Mortality	300/ 100,000 ¹	205.6/ 100,000* ³	Data not Available	Data not Available	Data not Available
Immunization Coverage	85% ¹	Data not Available	45.1%** ³	72.2%** ³	63.4%** ³

1 UNICEF *State of the World's Children, 1996*

2 INEI *National Census 1993*

3 DIRES-SM

* Under-reported

** For January-October, 1995, MINSa

In all three areas, the primary causes of mortality for children under five, in order of significance are acute respiratory infections, intestinal infections, and neonatal complications. One-third of all maternal mortality is attributable to abortions. Other causes of maternal mortality include hemorrhage, sepsis, and eclampsia. MINSa records

and testimonies from families show that diarrhea is the most common illness in children under five.

MINSa is responsible for all current primary health care and child survival activities in RSM. There are no NGO health services. MINSa has an extensive network of health units throughout the Region. All of these units offer basic primary care, when they are staffed. During the past decade of unrest, many of these units were closed due to lack of staff, but ninety percent are now fully staffed. There are two types of health units: health posts and health centers. Health posts are attended by a single auxiliary nurse or rural health technician, who have minimal training, or by a professional midwife. Some are assisted by a graduate nurse completing the obligatory one-year residency. Health centers offer more services. Most have a basic laboratory and are usually staffed with both a rural health technician and a nurse. And many also have a permanent physician or a medical student doing residency.

There are nine health posts in Lamas, and two health centers and nine health posts in El Dorado all of which are now functioning. In Banda of Shilcayo, there are six health centers and twenty-seven health posts, only one of which is not in operation.

Supplies of vaccine appear to be adequate, and the cold chain is in good condition. Lack of antibiotics is no longer a serious problem in the Region. Health units report having stable supplies of basic antibiotics. However, access to health posts remains difficult for much of the population, especially in Banda of Shilcayo and El Dorado where there are few roads, but not always in good condition due to frequent flooding.

During the two years before project starts, MINSa has implemented a community outreach program, which includes volunteer community health workers called promoters. In the target area, currently there are a total of 84 promoters (CHVs). They have received minimal training and supervision, but MINSa is anxious to expand this program, which has yet to be institutionalized. At the present, the principle role of the CHVs is distribution of oral rehydration salts (ORS), using their homes as Oral Rehydration Units (UROCs) in each community. In few isolated communities, they also manage a small pharmacy, selling over-the-counter medicines for a minimal fee to cover the cost.

In the community outreach focus, the health care personnel are also under instructions to go out to the communities and become involved in prevention activities beyond immunizations. However, those who have become accustomed to providing curative services within the health unit are reluctant to go out into the communities. There is no system of incentives in place nor adequate supervision to encourage this activity.

D. PROJECT DESIGN (Excerpts from the approved DIP)

OVERALL PROJECT DESIGN

The project includes four interventions: nutrition and micronutrients, breastfeeding, diarrhea case management, and family planning. These interventions were selected based on expressed needs of the population and of DIRES-SM, on available health statistics, and because of their inter-relationship.

Intervention	Percentage of Effort	Target Population	High-risk Population
Nutrition and Micronutrients	40%	Children 0-60 Months	Growth-faltering children under 24 months
Breastfeeding	25%	All mothers of infants born during the project and pregnant women	Children under six months of age
Diarrhea Case Management	25%	Children under 24 months	Children under 24 months
Family Planning	10%	Women of reproductive age	Women under 19 Women with two or more children under age four

All communities identified diarrheal disease and malnutrition as their top health problems. MINSA regional statistics confirm that diarrhea is the second cause of mortality among children under two. While Acute Respiratory Infection (ARI) remains the number one cause of morbidity and mortality for this age group, MINSA is currently receiving extensive technical and financial support from the USAID-funded Project 2000 and an IDB-funded program to extensively implement ARI interventions in the Region. Malaria exists in two of the UBASS, but it is not among the top five causes of child mortality.

According to the project baseline survey, there is no exclusive breastfeeding in the target area. This finding is corroborated by the recent ENDES survey, which included a larger random sample of the Region. All mothers breast-feed, but all introduce other liquids and food within a few weeks of birth. This obviously impacts the nutritional and micronutrient status of the children, incidence of diarrhea, and child-spacing.

Family Planning was included in the original proposal because of the high fertility rate and high rate of maternal mortality due to abortion in the target area. In the intervening period, MINSA has embarked on a major promotion effort in the region, resulting in a

fairly high acceptance of modern methods. This project will support the MOH educational efforts and assist with stabilizing supply of methods.

Community health volunteers will complete and maintain a census of all community members. They will visit all the target population in their area to encourage them to participate in all project activities. They will track pregnancies, births, and children detected at high risk for malnutrition, micronutrient deficiency, or diarrheal disease in order to give appropriate counseling and follow-up. This information will comprise a community information system. Community health committees will be asked to encourage all at-risk families to take advantage of project activities and to access health services. The CHVs will seek out existing groups such as mothers' clubs and offer them health education.

PROJECT FOCUS

The focus of this project is in community organization, training and supervision of CHVs, training and motivation of MINSA field staff, and in community education. The project does not supply any direct services. The project also provides technical assistance to the DIRES-SM in planning, evaluation, administrative reform, epidemiology, professional improvement, and acquisition of basic intervention-specific pharmaceutical products.

Each of the target communities is being encouraged to organize itself in order to seek solutions for their health problems. A first step in this process is to provide them with assistance and simple methods to identify priority problems and analyze possible causes and potential solutions. This activity has already been carried out in over thirty communities. The communities will be given assistance in learning to make decisions based on information, prioritizing issues, conducting democratic meetings, accessing other sources of technical assistance and funding, motivating citizen involvement, and evaluating efforts.

The project will be phased in communities in each UBASS. All communities will be organized and have CHVs by the end of Year 3, leaving Year 4 to reinforce efforts in all communities. Some education and promotion activities will be reaching all communities even before they are organized.

REVISED PHASE-IN PLAN OF TARGET COMMUNITIES BY PROVINCE BY YEAR

Province	Year 1	Year 2	Year 3
Lamas: 59 communities	21	22	16
El Dorado: 56 communities	29	20	7
B. of Schilcayo: 47 communities	35	6	6
Total: 162 communities	85	48	29

COLLABORATION AND FORMAL AGREEMENTS

This project was designed and is being implemented as a collaborative effort between Project HOPE, the School of Public Health of the Universidad Peruana Cayetano Heredia (UPCH), and the San Martin Regional Office of the Ministry of Health (DIRES-SM), in cooperation with two NGOs known as Eastern Center of Studies and Community Promotion (CEPCO) and AB PRISMA. The formal partners are the UPCH and DIRES-SM, with whom Project HOPE has signed institutional agreements.

From this CS-XII project, the UPCH receives a fee that covers part-time salaries of three employees, administrative expenses, and fees for laboratory and statistical analyses. Besides providing administrative and technical assistance, the university provides medical and public health students, and nursing students from affiliated nursing schools through an elective rotation in community health. These students spend one semester of their final year working at the project sites. Enrollment is limited to three students per year.

DIRES-SM is providing office space to the project, housing for students and assistance with transportation. DIRES-SM receives contributions of pertinent pharmaceuticals and, at the end of the project, the material goods of the project, which are located in Tarapoto.

E. CHANGES SINCE THE DIP

As stated in the First Annual Report submitted to USAID/BHR/PVC/CSH on November 14, 1997, there has been a change in the number of communities to be served by the project. This change was done to constant migration and new communities being established in all three target provinces—especially in El Dorado and in lesser scale in Lamas and Banda of Shilcayo. In addition, new episodes of guerilla activities in some parts of the target area—Lamas and Banda of Shilcayo—have made it necessary to revise the distribution of target communities for the rest of the project.

As a result, the project is expected to work with approximately 162 communities by the end of the cycle. However, the change in the number of communities does not alter the total number of beneficiaries, since small communities included in the original proposal became parts of larger communities, and other communities not listed originally were added accordingly.

There have been no other changes in interventions or total budget. However, given the urgency to improve the nutritional status of children and women of fertile age and the effectiveness shown by project staff in implementing activities towards nutritional improvement, it is recommended that for the last 24 months of implementation, the project increases its percentage effort in nutrition by 5% while reducing the Family Planning intervention by the same percentage. DIRES-SM is actively implementing FP activities under other health programs sponsored by Central MOH and other donors.

Such a change will not affect the budget nor the total estimated beneficiary population at the end of the project.

3. Quality of Programming

A. Coordination

The project staff has established an *informal* network of support in the complete area of the project. This network includes members of institutions whose core objectives are related to health—health centers, health posts, and local NGOs providing basic health services—and other potential collaborators—Ministries of Education and Agriculture, Police, local officials, private enterprises, etc.

This collaboration has been fluid and effective, sustained by the reputation of the project, based on the transparency of objectives and the efforts of the project staff, who are under the constant supervision by the project coordinator and project director.

However, the project has yet to formalize the coordination of activities with DIRES-SM. For sustainability purposes, it is necessary that the project activities are included in the maternal and child health strategy of the DIRES-SM

The project should review its strategy of working with the DIRES-SM. It is very important to remain aware of the strategic orientation of the DIRES-SM, in order to be aware of its priorities, to contribute with the project resources, and to incorporate the community based intervention in the DIRES-SM plan.

B. Access to Services

Project HOPE does not offer services directly, but rather promotes MINSA services with the communities. However, there is no specific information available about the access families have to the MINSA services. Among the target communities during the first year of the project, 26% (22/84) had access to MINSA facilities; and during the second and third year this proportion increased to 29% (28/96).

Appendix II shows maps of the three target provinces with the approximate distances between MINSA facilities and target communities.

C. Project Staff

HOPE staff

Milagros Mendoza	Project Coordinator
Karen Delgado	Nutritionist
Ana Quijano	Nurse/Health Educator (UBASS Lamas responsible)
Katia Flores	Nurse/Health Educator (UBASS El Dorado responsible)
Nancy García	Nurse/Health Educator (UBASS San Martín responsible)

Sandra Contreras	Consultant
Azucena Ríos	Auxiliary Nurse/Health Educator Assistant
Eda Huanca	Auxiliary Nurse/Health Educator Assistant
Wellington Ruiz	Administrator
Miguel Tejada	Driver

UPCH staff

Luis Benavente, MD	Project Director
Miguel Campos, MD	Health Information Specialist
Karl Alarcon	Data Analyst

Four medical students, five nursing students and three nutrition students have rotated through the project.

DIRES-SM staff

Miguel Vela, MD	Regional Health Director
Henry Ramirez, MD	Supervisor (Executive Director Individual Health)
José Paredes, MD	Supervisor (Technical Director)

Community Volunteers*

61 Community Health Volunteers	Lamas
42 Community Health Volunteers	El Dorado
55 Community Health Volunteers	Banda of Shilcayo

(*)Only 113 CHV are active

D. Supervision

The project has a weak system for monitoring the activities of health educators as supervisors of CHVs. In fact, monitoring has been performed, as we were told by community members interviewed; yet it is difficult to obtain quantitative information on a timely manner.

During the MTE process, some actions were observed for compiling the available information, re-designing and revising the forms to be used during the rest of the project. Also, firm participation of the project coordinator and the consultant for the management and use of information was noted.

A planning method needs to be used to identify the main objectives, activities, resources, and timeline of the project. Then critical steps and indicators to monitor will have to be identified before designing the monitoring system. The monitoring system should include a schedule to discuss the obtained information, with critical decisions and decision-makers identified.

E. Comments

EDUCATIONAL APPROACH

The education approach is the main methodology used by the field team, consisting of one nutritionist, three nurses, two auxiliary nurses, and one nutrition student.

The presence of health promoters, organized and trained by HOPE staff, as well as the support groups for exclusive breastfeeding (GALMEs) is evidence of the achievements made during the first two years of implementation. However, in order to consolidate these achievements it is necessary to maintain or to increase the frequency of contacts with the communities.

In the revised phase-in plan of target communities, it has been planned that in years 2 and 3, the project will cover 77 new communities, in effect doubling the workload. This may be too much for the human resources available if the strategy of the project remains unchanged. Thus, it is strongly recommended that the project make efforts to coordinate activities with DIRES-SM in the last two years of implementation, in order to serve the revised phased-in plan of target communities, as well as to create ownership of the project by DIRES-SM. Such a joint strategy will promote more communication between HOPE and DIRES-SM and reduce duplication of efforts by both institutions.

The project needs to review the approach and objectives of its presence in the communities already working to save human resources for the new communities. The new approach should include a stronger participation of DIRES-SM. The workload of educators should be re-distributed among the UBASSs, considering physical access and number of communities.

PROJECT COORDINATION

The different documents reviewed during the MTE process confirmed that the project coordinator needs technical support for planning and evaluation. Additionally, it is necessary to provide the project with an information system that can monitor the achievements towards project objectives. The project coordinator should be able to use the information system for planning and decision-making.

4. Quality at the Community Level

A. Educational Messages

The messages defined in the DIP are technically adequate. They were transferred through IEC printed materials used by health promoters (see Appendix III). The messages were communicated to members of the community, using printed materials in different community meetings as well as some home visits.

The project has not assessed whether the messages are understood by the target population; however, validation of some of the materials as well as pre and post tests were performed together with project staff and CHVs.

B. Project Assessment

The HIS does not yield information about the frequency of visits to each community. However, it is known that in the communities served during the first two years, there were 145 health promoters trained, and 113 of them were active just before the midterm survey started. This number of community volunteers represents an important achievement of the project.

Some knowledge and practices have been evaluated during the midterm evaluation. The project should review its design and activities with this information. However, the midterm KPC survey showed an increase in almost all-positive health practices and knowledge levels as compared with baseline results. A summary of the results of the midterm KPC survey is included in Appendix IV.

Another important aspect developed by the project is the participation of GALMES in dietary contests in all target regions. GALMES members were asked to prepare dishes that make use of regional and local products. The response from the GALMES members were surprisingly positive, as they were challenged to prepare a diet with the nutritional information, which would ultimately impact the nutritional status of their children and family members.

C. Effectiveness in Reaching Target Population

This project has been working in hard-to-access rural areas, which lack basic health resources. Despite this scenario, project staff have made breaking ground in reaching the beneficiary population under such circumstances. The participation of the community in the maternal and child health activities is constrained by the authorities, CHVs, members of the support groups and some families. In some cases, there is some confusion about the objectives, and groups are waiting the moment when HOPE starts to distribute gifts (food, medicines, etc.). The project needs to consolidate the importance of community participation in a health or development program, as the true owner of the intervention.

In a review of its strategy, the project should consider an efficient way to broaden the implementation of its activities in the target communities. The interest and awareness about maternal and child health/nutrition issues should become part of the community organization agenda, as a step for further social development. The project should consider the use of media, social meetings, or alliances with local leaders and institutions (Ministry of Education, NGOs, etc) to increase the coverage of its intervention.

5. Quality of Health Worker and Facility Services

A. Information System

The activities developed by HOPE—visits and education meetings to the communities, training and support of health promoters—are not regular activities of DIRES-SM, so there is no existing information system to monitor these efforts.

The nutritional surveillance of children is performed by a DIRES-SM program. The DIRES-SM forms, as well as data entry and reporting software are used by Project HOPE.

Since the planning of HOPE activities is not integrated with MINSA or other institutions, HOPE's information system remains parallel, despite the use of the same tools and protocols. However, integration is feasible. Project HOPE may use its experience in monitoring, training, and reinforcing health promoter activities, in order to develop a useful and efficient health information system, which may be incorporated to the MINSA information system.

Process information is incomplete, and sometimes non-useful information is recorded. There were neither protocols nor indicators. The project lacks a responsible person for the management of the HIS.

After having revised its monitoring and evaluation plan, the project should define its data collection forms and process the necessary data. The responsible staff member for each step should be identified and supervision schedules setup.

B. Tools

Only some activities of HOPE's interventions have been monitored: growth monitoring sessions, establishment of health committees, formation of GALMEs groups and, follow-up meetings. The monitoring of these activities has not included the comparison or progress towards goals and objectives. Samples of forms used for these activities can be found in Appendix III.

C. Materials and Supplies

The project has not developed a list of essential materials or supplies for the health facilities in the target area. However, it is important to mention that a wide range of pharmaceuticals, as well as medical supplies and basic hospital equipment have been provided as part of HOPE's match. The value of this match has largely surpassed the expected level. The donation of materials has been carefully coordinated between HOPE and DIRES-SM to assure proper use and distribution.

D. Health Promoters Performance

The project administered knowledge tests to its health promoters in order to measure their knowledge level and assess continuing training needs. Health promoter knowledge was evaluated before and after each training workshop. The following table shows the trend of scores of the health promoters by workshop during the first year.

Changes in the final scores as compared with initial scores (post-pre)					
Workshop	N	Average	Std. Dev.	Min	Max
First	91	3.4	3.6	-7	12
Second	101	3.3	4.1	-8	16
Third	94	2.4	3.4	-4	15
Fourth	111	3.6	3.7	-4	12
Fifth	102	4.8	3.0	-8	13.5

Promoters improving their score after attending the workshops		
Workshop	N	%
First	91	79
Second	101	77
Third	94	69
Fourth	111	79
Fifth	102	96

E. Conclusions regarding effectiveness

Overall, the project seems effective in reaching its objectives of providing quality services at the community level, through trained CHVs. Comments made to the MTE team are the following:

Training of project staff is of high quality, especially in adult education

Training of CHVs is of high quality

Monitoring of community groups and CHVs is lacking

Monitoring of project activities is deficient due to lack of an operational HIS

CHVs need to be supervised regularly

Coordination with DIRES-SM needs to be improved to assure sustainability

Education materials are of high quality

The project has increased the number of available materials through the development of new materials and the use of materials developed by other NGOs and the MOH.

6. CAPACITY BUILDING AND SUSTAINABILITY

OBJECTIVE	End of project objectives	Steps taken to date	Mid-term progress	Steps needed
Health promoters working for their communities	1) 400 trained promoters responding to the community 2) The 400 promoters being recognized by the community	3 nurses, 1 nutritionist and 2 technicians supporting the promoter's working.	145 trained health promoters	1) Visit other communities and invite them to participate 2) Make the promoters' work more responsive to the health demands of the community
Sustainable community health committees conducting health-related activities	1) 190 communities organized 2) Regular meetings 3) Implementation of project activities	3 nurses, 1 nutritionist and 2 technicians encouraging the development of committees in the participating communities	84 communities participating in the project activities	1) Increase the number of communities 2) Interest communities in the planning, monitoring, and evaluation of health related activities through committees.
MINSAs staff involved in community work	1) Staff from 85 health establishments involved in community work 2) Participation of DIRES-SM staff in the follow-up and strengthening of community work	3 nurses, 1 nutritionist and 2 technicians working in collaboration with the MOH personnel at the health facility level.	MINSAs staff from health establishments responding to the need of 84 communities working in collaboration with promoters	1) Include community work in the MINSAs staff duties. 2) Strengthen collaboration with DIRES-SM.
Fortified food on sale	Product demand by the population	Development of an iron fortified product, with completed acceptability and efficacy tests	Fortified food, produced in an experimental way by a local enterprise, is included in a food supplementation program, and present in expenditure sites	1) Monitor the consumption of the fortified food by the population.
UROCs functioning	190 UROCs functioning	113 promoters trained and active		1) Train promoters in the remaining communities 2) Involve promoters in the MINSAs diarrheal disease program

OBJECTIVE	End of project objectives	Steps taken to date	Mid-term progress	Steps needed
Support groups or BF counselors	1) 200 support groups functioning 2) Establishment of an association in each UBASS	3 nurses, 1 nutritionist and 2 technicians encouraging the support groups in the communities	66 Exclusive breastfeeding support groups (GALMEs)	1) Include the remaining communities 2) Interest the communities in planning, monitoring, and evaluation of support groups 3) Facilitate the communication between the support groups
Continuing growth monitoring	1) Growth monitoring of children under 5 years old in 190 communities 2) 400 promoters trained in growth monitoring	113 trained and active promoters	Nutritional surveillance in 84 communities (second round)	1) Provide anthropometric materials to the promoters 2) Include remaining communities 3) Improve time and quality of anthropometric data provided to the participating communities
School teachers spreading basic messages	100 school teachers providing basic messages	Contact with teachers	Not known	1) Coordination with regional and local authorities from the Ministry of Education 2) Development of education materials for teacher and student training
Adequate sanitary practices in communities	50% of communities with adequate sanitary practices	113 trained and active promoters	Not known	1) Define critical sanitary practices 2) Spread them among community groups
Participation of birth attendants in the promotion of BF and family planning	80% of birth attendants encouraging exclusive BF and family planning practices	Inclusion of birth attendants in breastfeeding support groups	Not known	1) Identify the birth attendants in the project area 2) Include them in the target population for breastfeeding and FP education
Improved dietary practices	1) 30% of mothers adopting appropriate food practices 2) Train staff from 85 health sites (MINSA) and 400 promoters on adequate dietary practices and adult education 3) 25% of the communities searching for technical support to improve agriculture	113 trained and active promoters, 66 breastfeeding support groups	More than 53% of children below age six months receive exclusive breastfeeding, Less than 13% of children below age one month receive banana	1) Include remaining communities 2) Use media support to diffuse messages about food practices 3) Coordinate with Ministry of Agriculture in order to obtain technical support

7. TECHNICAL AND MANAGEMENT SUPPORT

A. Technical Assistance

During the first two years, the project received external technical assistance (TA) from different sources, including experts from local NGOs, faculty members from Lima, as well as MOH directors. According to project staff, all TAs were of excellent quality and beneficial to the project. The following table includes all the TAs provided to the field personnel.

Technical Assistance Provided to HOPE field personnel

Type of Technical Assistance	Institution Responsible	Person(s) Responsible	Description
Planning and Start Up	HOPE	Judiann McNulty/Luis Benavente	Training in qualitative data and analysis.
Information Systems	HOPE	J.C. Alegre	Design of HIS
Baseline Survey	HOPE/UPCH/A B PRISMA	Judiann McNulty/Luis Benavente/Giovanna Baltazar	Design of the DIP
Micronutrients/Dietary Survey	HKI	Susan Burger	Design of the dietary survey and micronutrient concepts
Micronutrients/Hemocue Use	UPCH	Luis Benavente	Micronutrient concepts and use of the Hemocue during Baseline Survey
Infant Nutrition	AB PRISMA	Marilu Chiang	Basic concepts on intake dietary practices
Qualitative Techniques	U. Catolica del Peru	Rafael Tapia	Survey implementation and qualitative methodology.
Community Organization	CEPCO	Lenith Herrera	Concepts and methodology for community organization
Participation Techniques	CEPCO	Maribel Becerril	Concepts and methodology for participation techniques at the community level
Epi Info/Data Analysis	DIRES-SM	Antonio Carrasco	Setup of databases and basic statistical analysis
Adult Education	HOPE	Richard Crespo	Non-formal adult education techniques
DDC-UROCs	DIRES-SM	Rosario Ruiz Santillan	UROCs implementation and administration

Type of Technical Assistance	Institution Responsible	Person(s) Responsible	Description
Social Marketing	U. de Lima	Mario Vildosola	Social marketing of fortified food at the community level
Nutritional Surveillance	AB PRISMA	Nancy Fuentes	HIS and Nutritional surveillance systems
Family Planning	UPCH	Emma Rubin de Celis	FP and qualitative approach
HIS	ITDG	Roy Pinedo	HIS and the use of Microisis
Anthropometric System	AB PRISMA	Giovanni Bonifaz	Use of "ANA" for anthropometric analysis

B. Headquarters Backstopping

The project has benefited from constant communication with UPCH in Lima, HOPE field office in RSM, and HOPE headquarters in Virginia. Internet e-mail and online chat sessions have allowed continuous communication for rapid responses among the three institutions involved in this project.

In addition, support from UPCH has always been available for data analyses, technical support, as well as on-site help from rotation students of medicine, nutrition, and nursing.

As planned in the DIP, HOPE headquarters' manager has visited the project twice a year to provide technical and administrative support. The program director has visited HOPE's headquarters not only at the beginning of the project implementation, but on occasions for continuous education, workshops, and visits to other projects implemented with other institutions from abroad.

Finally, the project coordinator has had the opportunity to attend two workshops sponsored by HOPE and HKI. Both opportunities helped the project coordinator to share and gather lessons learned from similar projects in Latin America.

Future opportunities include the possibility of continuing education for project staff in RSM, as UPCH and DIRES-SM are coordinating the possibility to offer a master's program in public health in RSM.

8. ACCOMPLISHMENTS AND CONSTRAINTS

A. Implementation by Intervention

The four CS interventions of this project are being implemented in accordance with the approved DIP. All interventions have used the same approach: community participation through health promoters and support groups. In general, all interventions are technically sound and being implemented with some coordination with DIRES-SM.

The project needs to revise its strategy for the implementation of activities in the remaining target communities given the human resources available. The project needs to focus on its coordination with DIRES-SM in order to assure sustainability.

In addition, the project has made great efforts towards the micronutrients deficiency by developing fortified food with local products. Such efforts should continue with an assessment of results from the experimental phase in order to lay the grounds for full implementation.

A KPC survey was performed prior to the MTE. Its design and supervision was guided by the Center of Public Health of UPCH. The personnel in charge of implementing the midterm KPC survey were the same as those in charge of the project implementation. However, because of their experience in similar investigations, there is no reason to doubt the reliability of the results.

This survey was made through home visits to a random sample of households with children under three years of age in the project target areas. Unlike the baseline survey performed in January 1997, this midterm KPC survey included communities that had been served during the first two years of project implementation as well as communities that are not part of the target area. For details on methodology, implementation, and results of the midterm KPC survey see Appendix IV.

There have not been major changes in the socioeconomic characteristics of the target population since 1996. Therefore, some changes could be explained by the presence of the project. Some of the results of the midterm KPC survey can be summarized as follows:

Knowledge

As compared with the baseline survey, more mothers of children under two years of age were informed about:

- Exclusive breastfeeding during the first six months of age (*)
- Anemia
- Dehydration signs
- Frequent feeding practices during diarrheal episodes

(*) Children less than six months of age were not included in the baseline survey

Practices

Compared with the baseline survey, more mothers reported having:

- Used iodized salt
- Had her child without diarrhea in the fifteen days before the survey
- Searched for health promoter's help when her child had diarrhea
- Given more liquids to her child when he/she had diarrhea
- Given ORT to her child when he/she had diarrhea
- Used iron supplements during her last pregnancy
- Controlled her child's weight during the four last months before the survey
- Been pregnant at the moment of the interview

Finally, the project has also benefited from personnel exchange visits with “Proyecto Enlace,” a similar CS project being implemented by CARE in Otuzco, Trujillo. The reciprocal visits, that also included “Proyecto Nor Andes from CARE in the same region, have allowed staff from both institutions to share lessons learned and adopt new approaches in all the project interventions.

NUTRITION

The project has performed Growth Monitoring (GM) sessions and training of CHVs on GM as part of its strategy towards nutritional improvement. GM sessions, which included weighing, measuring, record keeping, interpretation of charts, and counseling, have been performed with the participation of almost 70 communities.

By the time of the MTE, the project was about to receive 120 *Salter* scales for their distribution and use in each community. Growth monitoring volunteers will weigh and measure children during community events and monthly home visits, allowing adequate counseling to mothers and less trauma for the children. As stated in the DIP, each volunteer will be responsible for no more than ten families. Volunteers will use standard child health cards provided free of charge by DIRES-SM to the families.

The project is also expected to receive technical support from AB PRISMA on the anthropometric analysis. Such a support should be also targeted to MINSAs personnel.

The project has reached a position as one development agent, with known and accepted objectives by the community. However, some pending issues to be resolved are:

- a) To integrate the efforts with all the health agents from DIRES-SM, Ministry of Education, and NGOs
- b) To consolidate the community participation to improve their children's nutritional status.

As this project emphasizes its activities towards nutritional improvement, and given the urgency to attend the nutritional status of the target population, it is recommended to

increase the percentage of effort of this intervention by 5%. At the same time, FP intervention should be decreased by the same percentage.

MICRONUTRIENTS

As it was explained before, the training activities to DIRES-SM personnel could not achieve the desired effect due to lack of integration with DIRES-SM planning.

HOPE, based on its image of technical proficiency in nutrition issues, has developed an alternative strategy consisting of developing awareness of micronutrient deficiency in other governmental and non-governmental institutions in RSM. As a result, HOPE personnel have been called to give technical support to the DIRES-SM and other governmental agencies interested in nutritional issues.

The baseline survey and other observations performed during the project implementation, provide enough information for an education intervention oriented to the diet diversification and choice of agricultural cultures, according to the products available in the target area.

The re-launching of micronutrient interventions by the Central MOH through the Micronutrient Deficiencies Prevention Program (PREDEMI) may be a chance to get over the resistance about the use of Vitamin A supplementation at the regional MOH level. It is necessary to mention that the findings of the baseline survey support the use of supplementation and fortification. The availability of beta-carotene food in the project area brings into consideration the distribution of supplements and fortified products in the Region.

The development of an iron-fortified product has been successful since the diagnosis and efficacy studies support the product. A medium-sized local enterprise is planning to produce it, using local cacao, after fulfilling some procedures for sanitary and industrial registration.

It is important to point out that, there is now a commercial product—Nutriplat^{MR}—fortified with ferrous sulfate. The marketing of this product has contributed to expand the educative intervention of the project related to iron deficiency prevention. The development of micro-enterprises producers of vitamin A fortified food has not been successful.

The Director of DIRES-SM stated that the findings from the baseline survey have been useful in correcting the MINSA intervention towards iodine deficiency. It has covered the entire region, including components of quality control, micro-enterprise, and communicational intervention. Due to HOPE's findings, MINSA has been reinforcing the quality control over iodized salt production in small-sized enterprises.

The development phase of a solar dryer device has been completed. The device, besides improving the availability of carotene rich food, offers the possibility to lower the prices

of agricultural production. At the moment of the MTE, the solar dryer is being tested in different communities in the target area.

BREASTFEEDING PROMOTION

One of the most important accomplishments of this project is the effective result of its education activities towards the promotion of exclusive breastfeeding of infants and children.

As suggested by one technical consultant during the revision of the DIP, the project included infants less than six months of age in the midterm KPC survey in order to assess the practice of exclusive breastfeeding, and not to obtain data based on recollection.

As it is shown in the results of the midterm KPC survey, the project has been able to promote the exclusive breastfeeding of infants by more than 65%. Such an increase is based on the number of activities implemented towards the promotion of this practice: training of CHVs, continuous monitoring of communities served in the first two years, and the creation of breastfeeding support groups (GALMES). By the end of the MTE, the project has 67 GALMES, all of whom received t-shirts (620) so they can be easily identified in their communities.

The project should try to implement the same approach to the remaining of the communities in the last 24 months of the project. However, such an implementation should occur with the active participation of DIRES-SM personnel in the target areas.

DIARRHEAL CASE MANAGEMENT

According to findings from the midterm KPC survey, diarrheal disease indicators reflect an increase in better practices for infants and children with diarrhea in the two weeks prior to the survey. There is a large increase from 29.2% (baseline) to 65.4% (midterm) of infants and children less than two years of age that have been treated with ORT. However, the survey also showed that fewer children—47.1% compared to 61.8% at baseline—are given the same amount or more food during a diarrheal episode. The survey also revealed a 6.4 percentage increase in the number of children that are given the same amount or more breastmilk during a diarrheal episode.

Most of the accomplishments in DCM could be attributed to the oral rehydration units at the community level (UROCs). The project has strengthened 66 UROCs that are currently active in the target area. The project has provided education sessions and support to health promoters in charge of the UROCs. The UROCs work in collaboration with the health facilities, in response to the planned and organized collaboration with CHVs and the Diarrheal Disease Control Program of DIRES-SM.

FAMILY PLANNING

As requested by one of the technical consultants during the DIP revision, the project staff received training from a FP faculty experts from UPCH. The development of activities in this area has been limited to support FP activities of DIRES-SM.

Midterm KPC survey found that a progress has been recorded from the baseline regarding modern contraceptive usage. In 1997, the baseline survey registered that among mothers using a modern contraceptive method, 62.1% of them desire no more children in the next two years or are not sure. However, this percentage has increased up to 83.9% at the time of the midterm survey.

Given the emphasis of DIRES-SM in this area and the achievements reached, it seems to be more efficient to point the efforts of the project toward other areas related with nutritional status and child survival. Therefore, a reduction by 5% of the effort of this intervention is recommended. A gain by the same percentage of effort should be directed to the Nutrition intervention.

On the basis of available information, we cannot clearly know the extent of which community members have been exposed to the HOPE's interventions. Although the project has been successful in getting support from local and regional officials, training health promoters in health and nutrition issues, and promoting the formation of support groups, it looks as if there was not enough compromise in the community organizations about nutrition and health problems. Therefore, we cannot expect the community to develop actions about children health and nutrition completely on its own initiative.

Some interviewed health promoters agreed that in some instances it is very difficult or impossible to reach some families of their communities with the educational messages. Perhaps the communication strategy used has not reached all the groups in the community. This limitation would not be associated to lack of physical presence, but to the attitudes of some individuals more reluctant to new information; or may also be to limitations in the communication channels used for dissemination of messages.

B. Implementation Schedule

Despite outbreaks of social instability and guerrilla activities in some parts of RSM, the project was able to start on time and to follow its schedule of activities during the first year of implementation. However, due to the dispersion of target communities, the project started to run somewhat behind the schedule regarding the number of communities to be served during the second year. It is probable that some of the proposed activities will not be completed within the project frame, but the impact objective setup in the DIP will probably all be achieved.

At the time of the evaluation, expenses through September 1998 (50% of LOP) represented a total expenditure of 40% of the total USAID budget. This under-spending will be trade off with more activities during the remaining 24 months of the project, and

with the participation of external consultants for training of project staff and MOH personnel

C. Important Achievements

This project is a traditional Child Survival (CS) project with four interventions: nutrition, promotion of exclusive breastfeeding, diarrheal disease case management, and family planning. The focus of the project has been to develop awareness about children's health and nutrition among community members. HOPE has been successful in training community members and staff from local institutions. This strategy offers a singular advantage: sustainability.

The most important achievements of the projects are:

- Community Organization
- Collaboration with MINSA and Others Institutions
- Micronutrient Interventions

COMMUNITY ORGANIZATION

The team has been successful in gaining the participation of community leaders in the identification of health problems, election of volunteers, organization of support groups—exclusive breastfeeding support groups and health committees—and the use of local resources to collaborate with HOPE activities. Among the most powerful achievements of this approach are the election, training and support of community health volunteers (CHVs).

It is important to point out that, as in other rural areas of Perú, health promoters trained by the Ministry of Health existed before HOPE arrived, as part of a strategy to cover areas without formal health services. HOPE has brought an important change to the MINSA approach with regard to health promoter's responsibilities and identification with the community. From the point of view of health promoters, HOPE's approach is characterized by its horizontal and participatory style, which has resulted in a more intense involvement of community members, frequently having them leave their work or household duties to run their activities as health promoters, a task that they have accepted and implemented.

Other achievements are the creation of Exclusive Breast Feeding Support Groups (GALMES, in Spanish) as well as Health Committees. The former are the most active, probably because they are formed by women of fertile age, usually more concerned about their children's health care. At the time of this evaluation, GALMES members showed special interest and willingness to participate, not only to enhance their knowledge about health and nutritional issues, but also as a channel to express their opinions in social matters within their communities.

COLLABORATION WITH MINSA AND OTHER INSTITUTIONS

As part of the approach used by the HOPE team, the personnel of the Ministries of Health, Education, Agriculture, and some local NGOs working in the project target areas, were involved and participated in activities implemented by HOPE. This synergy is due to the fact that all these development agencies identify with the objectives of the project. Conversely, the HOPE personnel have participated in supporting the activities of these agencies as far as their objectives were related to the project.

By this manner, the project has strengthened the position of these agencies, increasing the demand for health services and providing opportunities for local collaboration and technical coordination in aspects related to health and nutrition.

MICRONUTRIENT INTERVENTIONS

As it was planned in the DIP, the project has developed a considerable range of efforts directed to the micronutrient problem. The first was a micronutrient status assessment in the baseline study, which showed deficiencies in iron, vitamin A and iodine.

Based on the food consumption baseline data, the project has developed two kinds of micronutrient interventions: diet diversification and fortification.

Despite the availability of resources, supplementation was not chosen as an alternative, because the Regional MOH authorities considered it a non-sustainable effort.

The diet diversification intervention incorporates the use of green leaves, local products rich in vitamin A, and animal blood in the diet of the families. Perhaps the most successful approach was the development and test of desiccated hemoglobin fortified products. This development is due mainly to the technical support of the Universidad de Lima, CURMI, UNSM, PRONAA and the Center of Public Health's team from UPCH, leading the process of food fortification, including diagnosis, food consumption, availability studies, and the development of iron fortified food, as well as the effectiveness and acceptability studies. The project is at the moment in the process to transfer the developed hemoglobin food fortification technology to a medium sized enterprise (Molinos del Rey).

It is important to mention that an enterprise is marketing a banana flour based product, fortified with iron sulfate. This product is advertised in the whole Region, emphasizing its iron contents and increasing the odds for changes in the iron consumption practices of the population.

D. Factors Impeding Progress

Although the project was conceived with a close participation of DIRES-SM, such a relationship did not continue during the implementation of the project. This is an issue that came out very clear from the MTE. However, after the end of the MTE activities, DIRES-SM and Project HOPE agreed to re-start a close coordination of activities for the remaining 24 months of the project. A meeting with the Director of DIRES-SM, Dr. Miguel Vela López, together with the directors of all three target UBASS and the project

coordinator and project consultant was scheduled for September 22, 1998. Such a meeting marks the beginning of a compromise between Project HOPE and DIRES-SM towards a joint implementation of activities in the next two years. DIRES-SM is aware of the importance of its participation in this CS project in order to obtain sustainability.

The project lacks a functional HIS. Even though the project has generated a great deal of information, there is no updated computerized system that monitors the different activities of the project.

Student rotations from UPCH have not been implemented as planned. One of the main constraints is the fact that outbreaks of terrorism activities have been occurring on and off during the first two years of implementation, with a more intense guerrilla activity in the last 10 months.

Personnel turnaround has also been a problem for the project. One nurse/health educator, the project coordinator, and the program administrator decided not to renew their employment contracts between the first and second year.

The geography and the climate of RSM continue to be a serious constraint for the timely implementation of activities. This situation is exacerbated in the UBASS San Martin, where project staff spend up to 10-hour trips by car, boat and on foot to reach target communities.

The project should review its goals and objectives on the basis of available information and priority of the problems. Develop an information system that makes it possible to monitor the outputs.

9. Issues Identified by Evaluation Team, Project, or PVO

MALNOURISHED CHILDREN

Being the growth monitoring one of the most important activities of the nutrition intervention, it is necessary to make sure that protocols are setup to assure the accuracy of anthropometric systems.

OBJECTIVES FOR GALMEs

The GALMEs are formed by pregnant and lactating women and mothers of children under five years of age, whose initial motivation was to benefit from the knowledge the project is spreading through health promoters. However, it is obvious that as a human group, members of GALMEs have other preoccupations and interests to develop. The project should propose objectives for the short and long term for these groups. The objectives should be defined towards the consolidation of GALMEs as sources of information and/or models for their peers in the community.

DISSEMINATION OF RESULTS

As mentioned above, the diverse investigations performed with the support of Universidad Peruana Cayetano Heredia have strengthened the project. For this reason, the appropriate compilation and dissemination of final reports would be welcomed by the MOH and other national NGOs.

DEVELOPMENT OF EDUCATION MATERIAL

Personnel from CARITAS, an ONG related to the Catholic Church that works in RSM, stated the need to share the costs of developing education material. Considering HOPE, MINSA, and CARITAS objectives with the same target population for their education interventions, this looks as a feasible and favorable strategy.

APPENDIX I

LIST OF EVALUATION TEAM MEMBERS

EVALUATION TEAM MEMBERS

<i>Name</i>	<i>Title</i>	<i>Institution</i>
Gloria Barbaran	Health Promoter – El Dorado	Community
Marcelino Tapullima	Health Promoter – Lamas	Community
Romulo Miguel Ruiz	Mayor – Banda of Shilcayo	Local Government
Henry Ramirez, MD	Director – Basic Health Program	DIRES-SM
Luis Benavente, MD	Project Director	UPCH/HOPE
Milagros Mendoza, RN	Project Coordinator	HOPE
Sandra Contreras, RN	Project Consultant	DIRES-SM/HOPE
Karen Delgado	Nutritionist	HOPE
Ana Quijano	Nurse/Health Educator	HOPE
Nancy Garcia	Nurse/Health Educator	HOPE
Guillermina Ramirez	Program Coordinator for Nutrition	CARITAS
Reynaldo Sanchez	Training Coordinator for Nutrition	CARITAS
Juan Carlos Alegre	Headquarters Representative	HOPE

Midterm Evaluation Schedule
August 24 – September 4, 1998

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
23 Arrival of External Evaluator in Tarapoto, RSM	24 Organization of the Evaluation. Preparation of instruments	25 Field Visit El Dorado	26 Field Visit El Dorado	27 Coordination Meeting with Evaluation Team	28 Field Visit Banda of Shilcayo
30 Field Visit Banda of Shilcayo	31 Field Visit Banda of Shilcayo	1 Field Visit Lamas. Analysis of Findings	2 Analysis of Findings. Meeting with DIRES-SM Director. Departure to Lima	3 Preparation of Preliminary Results	4 Presentation of Preliminary Results with USAID Mission in Lima

As part of the MTE, on September 22, 1998 the project coordinator and project consultant met with the Director of DIRES-SM, Dr. Miguel Vela López together with the health directors of the three target provinces to discuss the findings of the MTE and a series of coordination meetings towards the design of jointly activities between HOPE and DIRES-SM with the exclusive purpose to create ownership of the project by DIRES-SM and therefore, to assure sustainability.

APPENDIX II

MAPS OF PROJECT TARGET AREA

APPENDIX III
IEC PRINTED MATERIALS

APPENDIX IV

RESULTS OF THE KPC MIDTERM SURVEY

APPENDIX V
PIPELINE ANALYSIS

See DRC # 7847 for appendices.