

PROJECT HOPE

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

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ACRONYMS

ARI	Acute Respiratory Infection
BF	Breastfeeding
BFSG	Breastfeeding Support Group (GALME, in Spanish)
CA	Cooperating Agency
CSP	Child Survival Program
DDC	Diarrheal Disease Control
DIP	Detailed Implementation Plan
CIHU	Community Integrated Health Unit
CHV	Community Health Volunteer
CORU	Community Oral Rehydration Unit
CS	Child Survival
CSTS	Child Survival Technical Support Project
DIP	Detailed Implementation Plan
DIRES-SM	Regional Health Office-San Martín, Ministry of Health
FP	Family Planning
GMP	Growth Monitoring and Promotion
HQ	Headquarters
HFA	Height-For-Age
HIS	Health Information System
ICD-10	International Statistical Classification of Diseases – 10th version
IMCI	Integrated Management of Childhood Illness
KPC	Knowledge, Practice, and Coverage
LHC	Local Health Committee
LQAS	Lot Quality Assurance Sampling
MCH	Maternal and Child Health
M&E	Monitoring and Evaluation
MINSA or MOH	Ministry of Health
MN	Micronutrients
NGO	Non-Governmental Organization
OR	Operations Research
ORT	Oral Rehydration Therapy
ORS	Oral Rehydration Salt
PANFAR	Program of Food & Nutrition for High Risk Families
PASA	Program for Support of Food Security
PRONAA	National Program of Food Support
PVO	Private Voluntary Organization
RDA	Recommended Dietary Allowance
RSM	Region San Martín
SA	Supervision Area
TA	Technical Assistance
TIPS	Trials of Improved Practices
UBASS	Administrative Basic Unit for Health Services
UNSM	Universidad Nacional San Martín
UPCH	Universidad Peruana Cayetano Heredia
WFH	Weight-For-Height

**CS-XVI Perú - First Annual Report
Project HOPE**

October 2000 - September 2001

A. Main Accomplishments

Despite a year of constant changes and reorganization at the central and regional levels within the Ministry of Health (MOH) and the Government of Peru (GOP), the program has progressed in most of its technical interventions. The progress is mainly due to the increased capacity of HOPE field staff, who have learned to use new monitoring tools for decision making, (i.e., LQAS), adapt and work under a changing environment (i.e., five Regional MOH Directors in the last 12 months), and to deal with constraints and challenges inherent to rural settings like remote villages of Region San Martin (RSM).

The Detailed Implementation Plan (DIP) has been the guidance and cornerstone for project implementation. The DIP was translated into Spanish in its entirety, and was distributed among key staff and managers within DIRES-SM (Regional MOH), and shared with all program staff in the field.

A.1 Introduction of LQAS as a Monitoring Tool

Lot quality assurance sampling (LQAS) was introduced as a monitoring tool during the first year of the program. A technical workshop was carried out by HOPE HQ and UPCH staff in RSM. The workshop was attended by HOPE field staff and DIRES-SM staff. The purpose of introducing LQAS was twofold: (i) to use it as a monitoring tool, so project staff can have a resource for decision making; and (ii) to use it as an evaluation tool at mid-term and final evaluations. Questions from KPC2000+ will be revised, adapted, and used at both evaluations.

According to the LQAS methodology, the program defined five supervision areas (SAs) within the project target areas in RSM (see Map in Appendix 1). The SAs, defined with input from DIRES-SM, were based on geographical location, political and administrative boundaries, and with input from DIRES-SM. The five SAs are:

i. Tabalosos. This SA received a large number of Quechua-speaking migrants from the Peruvian highlands. The rough terrain makes for very difficult field visits. Main crops are coffee, banana, and corn. Main health problems according to the HIS are ARI and pneumonia, parasites, diarrhea, TB and diseases of the skin.

ii. Barranquita/Pongo. Barranquita has 18 communities along the Caynarachi River. During the dry season, people must walk because the river is low. Main crops are grains and potato. The project has found some resistance in the local Catholic priest that would prefer to have health promoters working exclusively with his Church. Pongo has 24 communities, which are accessed by river and road. Main crops are palm hearts, rice, corn and plantain, and tropical nuts such as pijuayo (*Bactris gasipaes*) and aguaje (*Mauritia flexuosa*). The riverbank flood frequently, thus it is difficult to prevent water contamination from spilled latrines. Both Pongo and Barranquita are endemic for malaria.

iii. Papaplaya, Huimbayoc and Sauce. Fish abounds in this SA, during the “dry” season (less humid is more appropriate) they plant corn and plantain. To reach the center of this SA, project staff must travel up to five hours by truck and then up to seven hours by boat. Every rainy season (January-March) the town of Papaplaya floods, thus increasing risk transmission of diseases and reduces food security. There is no safe water.

iv. El Dorado. This is the poorest province of RSM. It has five districts, receiving intense migration from the highlands. The main economic activity is agriculture, producing coffee, plantain, and corn. Main health problems are parasites, malnutrition, diarrhea and ARIs.

v. Lamas. A small province at a higher altitude (up to 840 meters above sea level) populated by Quechua-speaking aboriginal groups, which fiercely protect their customs. Main diseases among children are ARIs, diarrhea, malnutrition and diseases of the skin.

Methodology

Staff training: a three-day LQAS workshop was facilitated in the field by HQ and UPCH staff in August 2001. Twenty-two staff attended the workshop: 8 from HOPE, 12 from DIRES-SM and 2 from other project partners. A representative of CARE Peru also attended the workshop. A pre-test was applied before the training: none passed the test. HOPE staff took the test online (using www.12teach.com) while MOH staff took it in a paper-and-pencil format. The training included several sessions to talk about the theory behind LQAS. Most of the activities used a draft of the NGO Networks LQAS manual (final version posted in www.ngonetworks.org) and translated locally into Spanish.

HOPE Perú produced a 3-D model of a typical community to show best approaches for sampling and data collection. Day 3 included an exercise in tabulating actual survey questionnaires from previous KPC surveys conducted in the project area. During the workshop, participants helped to improve the questions to be later (September-November) asked in fieldwork. After the workshop, participants received a post-test (paper and pencil format), showing a significant increase in knowledge on LQAS.

Field work started in September, 2001. Mixed teams of professional and technical project staff conducted the interviews. Following the plan outlined in the DIP, the first round focused on dietary information. The following rounds will include variables for all interventions, BF/nutrition, child morbidity, child spacing, plus the Rapid CATCH list, which is included in Appendix 2.

Two age groups were defined: 0-5 months and 6-24 months. Nineteen households were to be visited per age group per SA in each round. Parallel sampling ensured that in no instance two children in the same household were included in the survey.

Tabulation workshop: In contrast with the recommendation of the LQAS workshop, data was entered directly into databases and tabulations produced electronically instead of manually. The reason was the constant changing environment due to the political situation in Peru that precluded a smooth participation of MOH workers. HOPE field staff received input from HQ on a day-to-day basis.

Limitations: staggered LQAS might produce inconsistent results if an information/education campaign is conducted during the prolonged data collection because last lots were intervened in contrast with the first. Small samples do not allow interpretation at the SA level, but cases can be pooled across SAs to make assessments at the overall project level.

Conclusions: When performed in stages (instead of cluster surveys with a short span), data collection does not overly create an additional burden because it is integrated into scheduled visits to communities selected for LQAS. More than one round per year allows controlling for seasonality (diarrhea, dietary practices, malnutrition). Also, staggered data collection allows tabulating and analyzing data as they are cumulating. Given the internal heterogeneity in the project area, staff found LQAS superior than non-stratified KPC to produce data for monitoring and evaluation.

Table 1 summarizes the key program indicators monitored during year 1 using the LQAS sampling methodology. Adjusted coverage rates correct for the total population within each individual SA. It is a sort of weighted average. The main reason to obtain an adjusted rate is because SA populations vary considerably, thus a smaller SA might skew estimates. LQAS tables inserted in the text of this report show unadjusted results, otherwise the readers would not understand how those coverages are calculated. However, for comparison purposes with previous and further surveys, adjusted coverage rates will give a more fine, precise idea of the changes, and are the method of choice. The confidence interval also is calculated with adjusted coverage rates.

Table 2 shows program benchmarks for capacity building and sustainability, including progress towards benchmarks, and whether or not benchmarks have been achieved or if they are still in an “ongoing” process.

Table 1: Key Program Indicators for CS-XVI in Region San Martin, Perú

Results of the first LQAS round, 2001 INDICATORS for the entire project area	Average Coverage Rates (%)	Adjusted Coverage Rates (%)	95% C.I. (+ / -)
Infant Nutrition			
Ate a food source of energy 3+ times/day	76.8	82.4	8.2
Ate a protein source 3+ times/day	40.0	53.0	10.3
Ate a source of lipids 3+ times/day	26.3	34.6	11.4
Ate a vitamin A-rich food at least once a day	51.6	46.3	11.3
Ate an iron-rich food at least once a day	78.9	74.9	10.7
Diet included Energy, Protein and lipids 1+ times/day	63.2	55.7	11.8
Child had vitamin A supplements in the last year	23.2	24.4	10.3
Mother had iron supplements in her last pregnancy	53.7	51.7	11.8
Mothers that took iron 45+ days of their childbirth	25.3	22.6	9.5
Breastfeeding			
Gave Colostrum within 1 hour of giving birth	67.4	67.4	N/a
Exclusive breastfeeding rate (<6months)	67.4	67.3	10.9
Persistent breastfeeding rate (20-24 months)	33.3	43.3	29.0
Diarrhea			
Gave ORT (oral rehydration salts and other) during diarrhea (6-23m)	84.2	83.9	13.6
Gave same or more breastfeeding during diarrhea (<6m)	97.3	63.9	13.1
Gave same or more food during diarrhea (6-23m)	44.7	43.5	17.0
Knows during infant diarrhea should feed frequently	22.7	19.5	6.9
Mother knows children should have more food or energy dense food after a diarrheal episode	57.4	59.6	8.0
Respiratory Infections			
Gave same or more liquids during pneumonia (6-24m)	75	70.6	13.0
Gave same or more food during pneumonia (6-24m)	51.8	53.7	14.4
Mother knows children should have more food or energy dense food after a pneumonia episode	36.3	38.2	8.3
Knows during infant pneumonia should feed frequently (<24m)	20	20.3	6.9
Gave same or more breastfeeding during disease (<6m)	77.1	81.5	7.4
Management of Common Child Morbidity			
Knows danger signs in general (<24m)	25.8	28.1	7.6
% children (6-23mo) that were free of disease in the previous 2 weeks	26.3	19.2	7.4
Diarrhea-free the previous 2 weeks	70.5	67.1	8.0
Cough-free in the previous 2 weeks (<24m)	43.2	37.2	7.6
Child Spacing/ Maternal Care			
% mothers that had a birth interval \geq 2 years	80.9	79.8	8.9
% with institutional birth.	34.7	37.6	8.3
% of births helped by a trained provider	39.4	41.0	8.4

Table 2: Program Benchmarks for Capacity Building and Sustainability - 1st Year

Indicator or Objective	Benchmarks for Year 1	Progress towards Benchmarks	Benchmarks Achieved
Capacity building			
HOPE HQ attracting new technical staff	Not defined	Ongoing recruitment	Ongoing
HOPE HQ performing institutional capacity assessment	Capacity assessment	Strategic planning initiated	Ongoing
HOPE Peru improving documentation	One publication on lessons learned, technical presentations and publications	Manuscript ready for printing, two oral presentations (APHA and Global Health Council)	Yes
HOPE Peru strengthening networks of local NGOs, links with partners	Increasing ties with NGOs	HOPE chairs a task force group, networks with NGOs	Yes
DIRES-SM leading other regional health offices based in lessons learned	DIRES SM share its expertise in national events	DIRES SM disseminated the nutrition education model developed by HOPE	Yes
DIRES-SM improving program M&E	DIRES-SM, health networks use LQAS data for decision making	MOH staff took part in a LQAS workshop	Ongoing
DIRES-SM conducting HFA aimed to improve the quality of care, access	Expand Health Facility Assessments to new districts	None	No
UPCH faculty and students performing rotations in project area	Not defined	2 members of PH School visited, two nutrition interns had a 6-mo rotation.	Yes
UPCH faculty applying for funding to develop related OR in the same area	Not defined	One proposal funded to develop a fortified food	Yes
Sustainability			
Strengthen regional health committee	RHC holding two annual planning, M&E sessions	In progress: task force on food and nutrition is taking the lead	Ongoing
Train master trainers	12	16	Yes
Integrate, unify HIS for decision making	Integrated HIS providing timely and relevant information	HIS revised to include outreach activities, in accordance with ICD-10	Ongoing
Train MOH workers in MCH interventions	60 workers trained (3 years)	32 trained –MN workshop delayed	Yes
Strengthen M&E plans	Inventory system in place	None	No
Increase skills in health management-municipal officers	Municipalities know health priorities and strategies to address them	Municipalities sponsoring health promotion, participating in planning	Yes
Develop community outreach skills of health workers	Not defined	35/60 health facilities (58%) are supervising CHVs	Yes
Train community health volunteers	259 trained (3 years)	196 are active, 57 trained in IMCI, 20 in malaria, 165 in GMP	Yes
Outreach campaigns in rural communities	3 GMP campaigns 2 vitamin A suppl campaigns 2 deworming campaigns	3 GMP campaigns; supplements given in health facilities; one deworming campaign	Ongoing
Support Breast Feeding Support Groups	162 functioning (3 years)	74 functioning regularly	Yes
Support CORUs	69 CORUS functioning	None. See below under CIHUs	N/A
Support Community Integrated Health Units (they have replaced CORUs)	51 CIHUs functioning (revised goal for 3 years)	12 CIHUs formed	Ongoing
Link CS interventions with related ones	Not defined	VHBs active in 3 BFGs	Yes
Strengthen Local Health Committees	102 LHCs (3 years)	87 LHCs active	Yes
Increase access to basic medicines	30 community pharmacies (3years)	14 (47%) community pharmacies are active	Yes

The following sections describe the main technical accomplishments of the program by technical interventions.

A.2 Breastfeeding Promotion

There are 124 breastfeeding support groups (BFSGs, or GALMEs in Spanish), six more than the previous year. Seventy-four BFSGs held regular meetings in the last year. From the latter, 47 prioritized the promotion of exclusive BF. To achieve this result, project staff and MOH workers met with BFSG coordinators and facilitated education sessions on a) benefits of early initiation; and b) promotion of BF practices. BFSGs also met to discuss infant feeding (see section A.3.4).

As a way to integrate child survival (CS) with HOPE's USAID-funded income generation (IG) project and other community development activities, three BFSGs successfully formed village health banks (VHBs). The loans, which range between \$80 - \$120 for four months, are used to produce the main crop in the target area: peanuts. Those new VHBs have already received training in BF promotion and child feeding. HOPE plans to offer this opportunity to more BFSGs inside the project area to improve family health and nutrition while increasing the role of women in RSM.

The MOH Health Networks conducted activities to celebrate the BF Day: disseminated testimonies of mothers with successful BF stories, parades, and meetings with organized women.

HIS data on BF was reviewed with MOH staff: the proportion of children being seen at well-child clinics had dropped to 37% (from 63% in the previous year). The MOH staff alleged that the change of codes and software when the HIS switched to the International Statistical Classification of Diseases, version 10 (ICD-10), under registration and inadequate codes are to blame.

The project conducted a first round of monitoring using lot quality assurance sampling (LQAS). Adjusted prevalence rate of exclusive BF among children <6mo. was 67.3% (CI 95% +/- 10%). The goal for the entire life of the project had been set in 71%. To achieve this goal, it is planned to train the entire group of BFSG coordinators to follow-up proactively cases with failing BF practices. Also, to increase BF counseling during growth monitoring and promotion (GMP) activities in rural communities. DIRES-SM has recently defined that a child under 6 months must have at least four well-child visits to health facilities, according to the local IMCI norms. Those four visits increase the contact between providers and mothers. The project is training MOH staff to do a better counseling during those visits, particularly when the child has growth failure.

According to the same LQAS survey, 67.4% of the mothers had given colostrum in the first hour after giving birth. Since this rate is above the goal stated in the DIP (58%), the objective will be reworded to maintain this high rate of early initiation of BF.

Persistent BF could not be measured with accuracy because of the extremely small sample size: only 12 children in the 20-23 months bracket in this LQAS round.

Table 3: LQAS Summary Results - Breastfeeding Promotion

HOPE Peru CS-XVI		Results from 1 st Round of LQAS Monitoring: September-November 2001															
Breastfeeding Promotion : Children < 6 mo (indicators #1 and #2)																	
#	Indicator	Total Correct in Each Supervision Area					Total Correct in Project	Decision Rule	Sample Size for Supervision Area					Total Sample Size	Average Coverage (%)	DIP Goal 2,003 (%)	Revised Goal for Year 2
		Tabalos	Barranq. Pongo	Papap. Sauce	Dorado	Lamas			1	2	4	3	2				
1	Gave Colostrum within one hour of giving birth	14	9	<u>12</u>	14	15	64	11	19					95	67.4	58	67.4
2	Exclusive breastfeeding rate (<6months)	<u>12</u>	7	17	14	14	64	11						95	67.4	71	71.0
3	Persistent breastfeeding rate (20-23 months)	0	1	1	2	0	4	**	1	2	4	3	2	12	33.3	20	20.0

** decision rule not applicable due to small sample size

Underlined: under average coverage

Bold: under Decision Rule

Recommendations:

- LQAS results show that the Barranquita/Pongo supervision area requires a more intense effort in promoting better BF practices.
- Although average coverage rate of persistent breastfeeding is above the goal set up in the DIP (20%), the confidence intervals are considerable large (+/- 29%, see Table 1: Key Program Indicators) due to small sample size. Thus, analysis of changes over time should take into account confidence intervals.

A.3 Child Nutrition

A.3.1 Recipe book. The project produced a revised recipe book with nutritional messages about a balanced, nutrient-dense diet to improve infant feeding practices, particularly in the second semester of life when complementary feeding is started, and then failure to begin. The process was participatory and women contributed with many recipes with local foods that are perceived as socially acceptable for infants. Steps to produce this book included:

- a) Dietary data collection on locally available and nutritious foods that are given to infants, agricultural calendar;
- b) Qualitative research with 30 mothers from Nauta, El Dorado, to explore representations and perceptions about locally available foods. Project staff had been trained by researchers from Instituto de Investigacion Nutricional (Nutritional Research Institute) in Lima.
- c) Collecting recipes from mothers' groups, food composition analysis using available tables, testing the acceptability. In Lamas, a local NGO, Choba-Choba, helped to set up a food contest on the best combination of local foods;

- d) Validation of those recipes: preparations were first tested under “laboratory” conditions for characteristics (taste, appearance, aroma) and then tested in the field. Ten groups with a total of 78 mothers and 76 children, distributed in the three health networks, participated in those trials and provided useful recommendations on how to improve the preparations: amount served, choice of ingredients, how to present the preparation and improve taste; they provided feedback on their willingness to try that preparation at home.

A.3.2 Trials of Improved Practices (TIPs)

A pilot test was conducted in Nauta, El Dorado, with 30 mothers with children in the age group 6-36mo. The focus of those trials was to find a way to negotiate with mothers active feeding and the use of lipids in preparations given to the child. Steps included:

- a) Feeding practices were observed in visits to households, quantitative dietary surveys using direct weighting of foods (performed by Nutrition interns) produced detailed data on foods available in the household, those served and those consumed by the child, complemented with food frequency checklists.
- b) The analysis of the dietary data was made in the field.
- c) Negotiation of desired behaviors –active feeding and increasing energy density by adding oily ingredients, increasing consumption of micronutrient rich foods- was made following the TIPs protocol. One desired behavior at each time was selected, mothers were offered three options and negotiation ensured that the procedure was not prescriptive.
- d) Follow-up visits after 6-10 days to explore obstacles, willingness to continue with the improved practice.
- e) Synthesis of findings: when enough data is available on maternal behavior that appear to be feasible to achieve and that represent a significant improvement with regard to previous practices, the experience is documented –report is being prepared- to attempt scaling up improved practices in other areas. Example: mothers said they were not able to add oil to infant foods because there is no industrialized oil, lard or margarine sold in those rural communities. But mothers easily agreed to add fat-rich ingredients to the baby foods such as tropical nuts such as *aguaje*.

A.3.3. Protocol for dietary management of common diseases. Project staff revised with DIRES-SM technical staff the recommendations for management of sick children, in accordance with the IMCI protocol adapted for Perú. Basic messages to be given to mothers are summarized in Table 4.

Table 4: Desired Feeding Practices

HEALTHY CHILD	SICK CHILD	CHILD RECOVERING FROM DISEASE
2 parts of energy-dense foods, 1 part of protein-rich food, a little of food providing MN	Same	Same
Add 1 spoon of oil to food- or oily foods	Same	Same
Solid foods instead of watery foods	Same	Same
Five meals a day	More frequent feedings	Six meals a day for two weeks
One cup at a time	Smaller portions	One cup at a time

See detailed information on child feeding practices during disease in Section A.5 on diarrhea and respiratory infections.

A.3.4. Infant Feeding Practices

Project staff improved the KPC2000 food frequency list by adding an illustrated booklet to show mothers the regional foods that are included in each food group. The project defines as adequate ingesting 3+ times a day foods that are sources of energy, lipids and protein. For micronutrients (Vitamin A and iron), a frequency of 1+ per day is regarded as adequate.

Energy: 82.4% of the children ate energy-rich foods 3+ times a day, the goal for the next year has been set in 89%. The DIP has set a benchmark for evaluation purposes based on energy intake (53% having at least 90% of the RDA), that cannot be compared.

Protein: 53% of the children ate sources of protein 3+ times a day, the benchmark set for the next year is 60%. Supervision areas are very heterogeneous in the intake of protein, reflecting perhaps a reduced availability in some areas. The project will seek partnerships with institution promoting small husbandry, raising poultry, and guinea pigs as sources of animal protein.

Lipids: only 34% of the children ate food prepared with fats 3+ times a day. The goal set for year 2002 is 40%. Most mothers do not purchase refined, processed fats; as a result most preparations are fat-free, except when mothers prepare special foods or treats at holidays. Extremely low fat intakes reduce energy density and the intake of essential fatty acids. The project will work with organizations promoting the production and consumption of oily foods such as peanuts and tropical nuts available in the entire project area. The project nutritionists will continue exploring the representations on specific foods to know their attributes or characteristics perceived by mothers and develop improved educational materials for nutrition education.

Table 5: LQAS Results – Infant Feeding: Children 6-23 Months

HOPE Peru CS XVI		Results from 1st round of LQAS Monitoring: September-November 2001										
#	Indicator	Total Correct in Each Supervision Area					Total Correct in Project	Decision Rule	Sample Size for Area	Total Sample Size	Average Coverage (%)	Goal for Year 2 (%)
		Tabalosos	Barranq Pongo	Papap Sauce	Dorado	Lamas						
1	Ate 3+ times a day	10	<u>9</u>	11	<u>8</u>	11	49	8	19	95	51.6	70
2	Ate 4+ times a day	4	5	4	4	<u>3</u>	20	2			21.1	35
3	Ate 5+ times a day	5	4	<u>3</u>	4	<u>3</u>	19	1			20.0	30
4	Child had vitamin A supplements in the last year	6	<u>1</u>	<u>2</u>	6	7	22	2			23.2	40
5	Mother had iron supplements in her last pregnancy	<u>8</u>	<u>9</u>	<u>8</u>	<u>9</u>	17	51	8			53.7	60
6	Mother took iron 45+ days after birth	5	5	<u>4</u>	<u>3</u>	7	24	3			25.3	40
7	Ate a food source of energy 3+ times/day	<u>14</u>	16	12	17	<u>14</u>	73	13			76.8	89
8	Ate a protein source 3+ times/day	8	<u>7</u>	<u>4</u>	15	<u>4</u>	38	5			40.0	60
9	Ate a source of lipids 3+ times/day	5	<u>4</u>	<u>3</u>	10	<u>3</u>	25	3			26.3	40
10	Ate a source of lipids 1+ times a day	17	<u>11</u>	<u>12</u>	10	15	65	11			68.4	88.4
11	Ate a vitamin A-rich food at least once a day	16	11	<u>7</u>	<u>6</u>	<u>9</u>	49	8			51.6	72
12	Ate an iron-rich food at least once a day	18	17	15	12	<u>13</u>	75	13			78.9	90
13	Diet included Energy, Protein and lipids 1+ times/day	16	<u>11</u>	12	<u>8</u>	13	60	10			63.2	78

Underlined: under average coverage

Bold: under Decision Rule

Balanced foods: only 5% of the children had energy, protein and fat included in all meals. 70% had at least one meal including all macronutrients mentioned above. The goal set for the next year is 78%. 40% of the children had 4-5 feedings per day; there was no difference between supervision areas. To increase the frequency of feedings the project plans to use participatory, non-prescriptive approaches such as TIPS.

Recommendations:

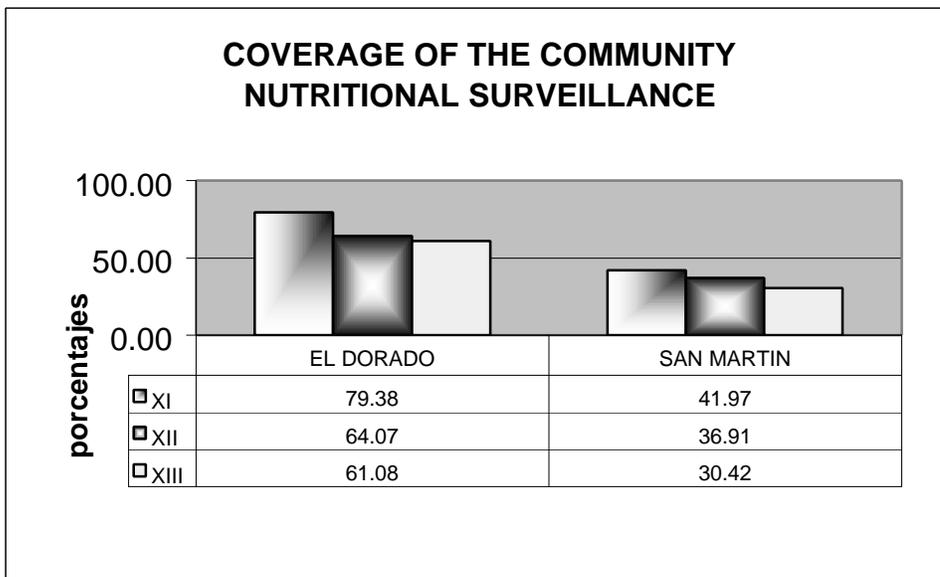
- Nutritionists should increase visits to Papaplaya, Sauce and El Dorado to improve dietary counseling given by institutional and community-based providers.
- Overall, dietary practices are poor in most supervision areas. The project should maintain efforts on nutritional education across all target project areas.

A.3.5 Growth Monitoring and Promotion (GMP)

The project conceptualizes this activity as the potential source of routine quality data for nutritional surveillance, provided that: a) GMP coverage rate is above 80%, and b) anthropometric data has high quality.

Coverage of “community-based nutritional surveillance” as locally called. Health promoters perform a campaign every four months. Campaigns XI, XII and XIII were held in January, May and September 2001 respectively. Mothers bring their infants to be weighted and measured. Information about the child’s nutritional status and counseling is given on the spot and during individual meetings. Data is sent to the MOH and entered into a computerized database.

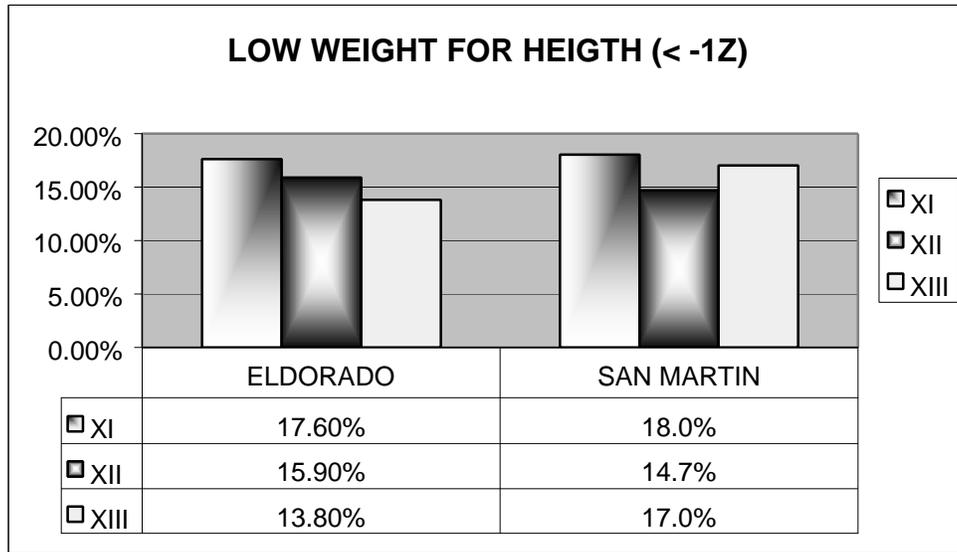
Graph 1



The GMP sessions are being conducted every four months as compared with every three months in previous years. We understand that a higher frequency might be desirable, to detect more episodes of wasting and poor weight gain. However, health promoters are active promoting health in other interventions. Given the fact that those GMP sessions are being held in extremely remote rural communities, the frequency adopted is the best the project could negotiate with them.

The prevalence of low weight-for-height (defined as WFHZ<-1) among children under 60 months in each session and health network is shown in the following graph.

Graph 2

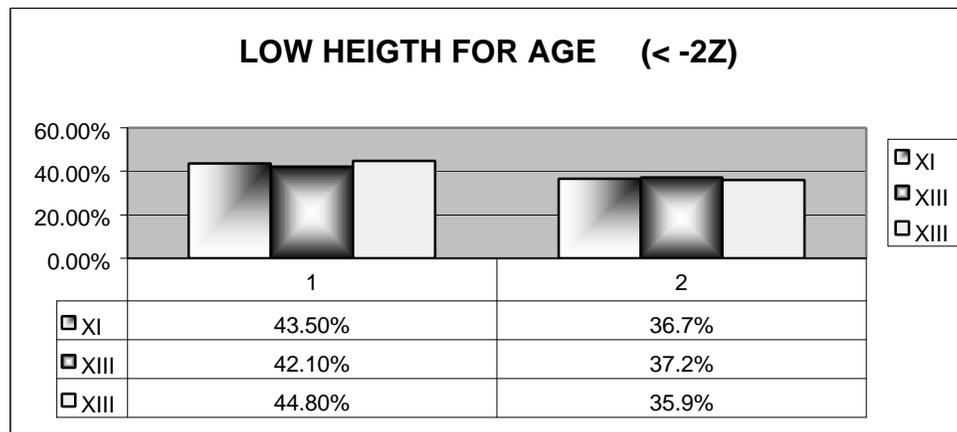


Health Network Lamas collected the GMP data but due to administrative problems, it has not been entered into the HIS at the time this report was prepared. A complete set will be presented in future reports.

The proportion of children with a low weight-for-height is tending to decrease with time. This trend is associated with lower prevalence of diarrhea and better coverage rates of deworming and micronutrients supplements given to preschool children.

The proportion of children 0-59 months with stunting (HFAZ<-2) is shown in the following graph:

Graph 3



On the average, stunting affect 40% of children in the health networks with regular GMP. The trend is towards a lower prevalence of stunting. However, it must be noted that community-based GPM includes only children from rural communities; data from children being measured at well-child clinics are not captured by the project.

The project is helping to create a culture of quality: standardization of measurements and verification of adequate use of forms and reports has helped to improve data quality. Still, quality control of the data being entered into the Community Surveillance System is not used in some health networks.

Other achievements: 76 members of the local small Coffee Grower Association in Lamas received educational sessions about balanced feeding using local products. Under agreement with PRONAA, a child feeding program conducted by local governments in the project area, 56 schoolteachers and 46 women in charge of School feeding programs were trained in child feeding practices.

A.4 Micronutrients

A.4.1 Vitamin A

The project had planned to implement in the first year activities for the control of MN deficiencies, in collaboration with local partners. The plan included: a) a workshop-funded separately by Sight and Life-on MN control for technical staff from all three health networks, ensuring a safe and effective use of supplements. This training need was confirmed by the fact that in one of the health networks some children had been given daily doses of vitamin A supplements, instead of every 4-6 months, because of the lack of adequate orientation. b) a follow-up of the performance of health workers and community-based provider to ensure an effective counseling of mothers on MN-rich foods that are locally available.

The project secured vitamin A supplements that are currently being shipped. However, most health facilities are stocked-out of those supplements since June 2001.

Our local partner, Universidad Peruana Cayetano Heredia (UPCH), obtained support from Ajinomoto Corp, Japan, to select, with local producers, a locally grown staple that can be fortified with iron and/or vitamin A. Project HOPE will provide UPCH with detailed dietary data for this purpose.

Vitamin A: 46% of the children ate a vitamin-A rich food at least once a day, the goal set for 2002 is 72%. The absorption and storage of vitamin A intake is worsened by the fact that local diets are low in fat. The identification of key attributes or characteristics of vitamin A rich foods will be used with a TIPs approach. This will show how to negotiate with mothers a more frequent consumption of vitamin A-rich foods by the child, particularly preformed retinal, from animal foods.

According to the LQAS survey, 23% of the children had had vitamin A supplements in the last 12 months. The goal set for Year 2 is 40%. The project will help DIRES-SM to improve procurement and logistics of those supplements.

A.4.2 Iron

As planned, project staff conducted an OR exercise on the benefits of iron fortified foods on attained growth among children with anemia and wasting. Data collection ended in

September 2001. Fifteen children receiving cocoa fortified with heme-iron and 14 children receiving plain cocoa were followed-up during 10 weeks.

Height gain was subjected to test of normality and analyzed according to Friedman. Hemoglobin increase was significant in the fortified groups ($p=0.0000$). Recovery rates from anemia were 86% in the fortified groups and 35% in the control group. WFH increased significantly in the fortified group ($p=0.0000$) while the control group did not experience improvement ($p=0.755$).

DIRES-SM, whose staff took an active role in this OR exercise, is planning to scale up this activity, including a fortified food as a complement of iron supplements given to children.

Regarding iron supplements, all health networks have the stocks to attain up to 60% coverage rate among children 6-11mo. In the Peruvian Amazon basin, anemia rates are also higher among older children, but the MOH has given the priority to younger infants due to the long-term known effects of early anemia, including a low IQ. Districts with the lowest socio economic status will also be prioritized. Infants are being given 2 bottles with iron pills every 3 months after the remaining pills are counted the child is classified as adequately supplemented.

Regardless of the evidence that in the project area young infants harbor intestinal parasites, current norms do not allow to give deworming treatment to children under one year of age.

DIRES-SM has trained its staff to improve the quality of the data on the control of MN deficiencies, but recent supervisions suggest that the MOH staff still does not know enough on technical interventions using supplements.

According to the HIS (1st quarter 2001), the coverage rates for iron supplements is 29.3% at regional level, 66% in San Martin, 74% in Lamas and 43% in El Dorado. This information suggests that the project “catchment” area has achieved better use rate than other areas within RSM.

According to LQAS surveys, 79% of the children ate iron-rich foods at least once a day; the goal set for the next year is 90%.

As stated above, the project will seek partnership with local NGOs and other organizations promoting small husbandry. Iron supplementation in the same survey had an adjusted coverage rate of 52% among pregnant women and 23% among women during their puerperium. There is no specific goal in the DIP about iron supplementation. The first monitoring round did not collect information on iron supplementation of infants.

A.5 Management of Diarrhea and Respiratory Infections

The project and DIRES-SM agreed to select 16 master trainers based on training needs. They were trained according to the IMCI guidelines for case classification, treatment, referral and follow-up including counseling on prevention.

With DIRES-SM, project staff revised the curricula to train health promoters in case management. For each disease, the curriculum included the identification of danger signs, dietary management during and after an episode of infection, referral and counter-referrals, and basic health messages to give mothers on prevention. The curriculum and its education materials were tested in El Dorado, during the training of 57 health promoters in IMCI.

As part of a related activity funded by Glaxo-Wellcome to develop educational materials for families to complement facility-IMCI, project staff interviewed 17 workers in health centers. It was noted that there were no printed mothers' reminder materials on danger signs of common childhood diseases. HOPE will start the design, production, and distribution of mothers' reminder materials during the second year (2002).

The project has supported DIRES-SM in deworming campaigns aimed at children 2-14 years, with emphasis on children 2-4 years (schoolchildren are being dewormed at their schools twice a year). For the latter age group, coverage rates are 54% at the departmental level. Health networks in the CS Project area tend to have higher rates: 83% in El Dorado, 64% in Lamas, and 40% in San Martin.

According to the MOH HIS, diarrhea incidence rates among children under one year are higher in the project area (13.2% in El Dorado, 4% in Lamas, 8.8% in San Martin) than overall regional rates, 2%. However, this could reflect an increasing demand of services stimulated by the project education activities.

The first round of LQAS monitoring conducted by the project showed that adjusted prevalence rates (in the two weeks preceding the LQAS survey) were 32.9%. The goal stated in the DIP was 41% (20 points less than baseline rates). The reduction between baseline and the rates found in the LQAS survey was 28%. Still, this reduction might have reflected seasonal changes. Future LQAS rounds will collect data year around, controlling for seasonality.

Health promoters in the lower Huallaga Valley (a rain forest) have been asked to try a new procedure to get clean water. Before, people in Papaplaya and nearby communities collected water from the riverbanks, in the same spots where others discarded human wastes. Health promoters feel not limited to support project activities and with support from our partner, DIRES-SM and its specialized Center for the Control of Transmissible Diseases, are learning to mix water with chloride and other reagents provided by the MOH. This practice was success and will be expanded by DIRES-SM to nine other communities in the project area that are prone to flooding. During the rainy season, aquifer levels increase and fill latrines. When the town is flooded, the content of water wells and latrines get mixed. When flooding recedes, water wells are not decontaminated. DIRES-SM expects that the community will learn how to purify water on their own to prevent diarrhea, using sand filters and other procedures whose cost is under assessment.

The project is facilitating related activities such as health education on the proper use of latrines, hand washing, the protection of food and water supplies, and keeping domestic animals from entering the home.

The following table shows results of LQAS first round of monitoring diarrhea case management.

Table 6: LQAS Summary Results – Dietary Management of Diarrhea Episodes

HOPE Peru CS-XVI		Results of 1 st Round of LQAS Monitoring: September – November 2001															
#	Indicator	Total Correct in Each Supervision de Area					Total Correct in Project	Decision Rule	Sample Size for Area					To-tal Sample Size	Average Coverage (%)	Goal (%) as per the DIP	Revised Goal for Year 2
		Tabalosos	Barran Pongo	Papa Sauce	Dorado	Lamas											
1	Gave ORT (oral rehydration salts and other) during diarrhea (6-23m)	5	5	9	8	5	32	N/a	6	6	11	10	5	38	84.2	70	85.0
2	Gave same or more breastfeeding during diarrhea (<24m)	6	2	12	12	5	37	N/a	9	7	17	17	5	55	67.3	60	70.0
3	Gave same or more food during diarrhea (6-23m)	3	4	6	4	0	17	N/a						38	44.7		55.0
4	Gave same or more breastfeeding during diarrhea and (<6m)	5	5	9	8	5	32	N/a	6	6	11	10	5	38	84.2		85.0

Underlined: under average coverage

Bold: under Decision Rule

Recommendations:

- Emphasis should be placed on improving dietary management of diarrheal episodes, with emphasis on continuing giving food or semi-solid food during diarrheal episode in all supervision areas.

The ORT use rate in the project area is 83.9% in children 6-23 months of age that were selected in the first LQAS round and had had diarrhea. The goal stated in the DIP was 70%. The increase over the baseline has been 36 percentage points. Most health facilities are suffering from stock-outs of ORS, but the project has focused on ORT. The project conducts regular visits to CORUs to supervise case management and provide on-site training. Twelve CORUs have been converted into or established as Community Integrated Health Units (CIHUs), being able to provide treatment at the community level. The project will support the conversion of CORUs into CIHUs in other remote areas that are two or more hours away from the nearest health facility.

The same LQAS monitoring showed an increased in the proportion of children that are being given more/same amount of breast milk, 63.9%. Since the goal stated in the DIP (60%) has been reached, the revised goal for the next year will be 70%.

The project has not been successful in increasing the proportion of mothers that give the child the usual amount or more food during the diarrhea. Only 43.5% (adjusted rate) of children (6-23 months) that had diarrhea ingested the same/more food according to the LQAS monitoring. This is only one percentage point above the baseline. The goal of 60% will require additional efforts in identifying cultural and other obstacles, developing and testing improved educational materials and messages. For the second year of the project, a revised goal of 55% has been set.

The LQAS survey also showed that 19.5% of mothers knew that during diarrhea they should give more frequent feedings of smaller size, the goal set is to increase this rate to 40%. 59.6% of mothers knew that sick children must be fed energy-dense foods, and the new goal has been set at 70%. Most of nutrition education will be given to mothers' groups, such as BFGS, using participatory methodologies such as testimonies.

With regard to respiratory infections, the MOH HIS reported a reduction in the incidence of ARIs and pneumonia in the last semester. ARI incidence rates among under-fives were 28.1% (overall, region); 23.7% (San Martin Health Network); 17.2% (Lamas, and 23.7% in El Dorado. MOH staff believe that the reduction in the number of reported cases of pneumonia has more to do with underreporting of cases than with a true reduction in incidence, while a reduced effort in detecting cases or a reduction in severity cannot be ruled out.

The LQAS survey found 62.8% of children under two with a history of cough in the last two weeks preceding the survey, in comparison with 66.1% at baseline (July 2000). New information on dietary management of ARIs included: 70.6% of the mothers continue offering liquids the child during disease, 53.7% continue feeding the child. 20.3% of the mothers said they should give smaller and more frequent feedings to sick child. 38.2% of the mothers said that energy-dense foods should be given to children that are recovering. 81.5% of the mothers continue breastfeeding the sick child.

Goals stated for the next year: 85% of mothers will give more liquids to children, 80% will continue feeding sick children. 40% will know that more frequent feedings of smaller size should be given to sick children. 56.6% will know that energy-dense foods should be used during recovery. 87.2% will continue offering breast feeding to children with ARIs.

A.6 Malaria

Two planning workshops were held with the technical team from DIRES-SM in charge of the malaria control program in RSM. The objective was to analyze the trends in malaria incidence by age group. MOH staff agreed that children under five contributed significantly to malaria incidence, despite the fact that the highest rate is among children 6-10 years. As a result of this planning process, all malaria control activities are integrated into the health promotion activities in health networks where malaria is a public health program. Other partners such as local governments will help to define a broader plan including environmental and social variables, such as migration.

Sponsored by the project, a malaria expert - Dr. Alejandro Llanos- visited the project area to conduct an assessment of malaria control activities in San Martin. Dr. Llanos is the

current Dean of the School of Public Health at UPCH, one of the main partners of this project. See OR related topics suggested by UPCH technical advisor in page 19.

A technical protocol was translated into simpler language for community-based control of mosquito breeding sites. Local Health Committees (LHCs) will be in charge of conducting those activities. Nine LHCs have been trained in malaria control.

The project also prepared a malaria case management protocol (Job Aid) for health promoters.

A campaign was carried out in 22 communities in malaria-stricken districts; all of them had been classified as being at moderate-high risk of transmission. This campaign consisted of screening for malaria using thick blood smears of all people that was accessible during the visit (70% of the total population), and promotion of the reduction of breeding sites around the houses (26% of progress in this task). 22 health promoters were trained on-site in the proper procedure to make a thick blood smears in their communities. The campaign included also the Rapid Immunochromatography Test "ICT Malaria Pf" that is specific for *P. falciparum*. All cases were treated. After the screening, all houses in these 22 communities were sprayed with insecticides.

Main challenges: ineffective coordination between local authorities, lack of supplies and transportation. Also, a sudden increase in dengue cases in the urban area deviated resources previously allocated by the MOH to this campaign. Another challenge is that regulations on malaria control are continuously being modified, requiring additional training to update health workers and promoters.

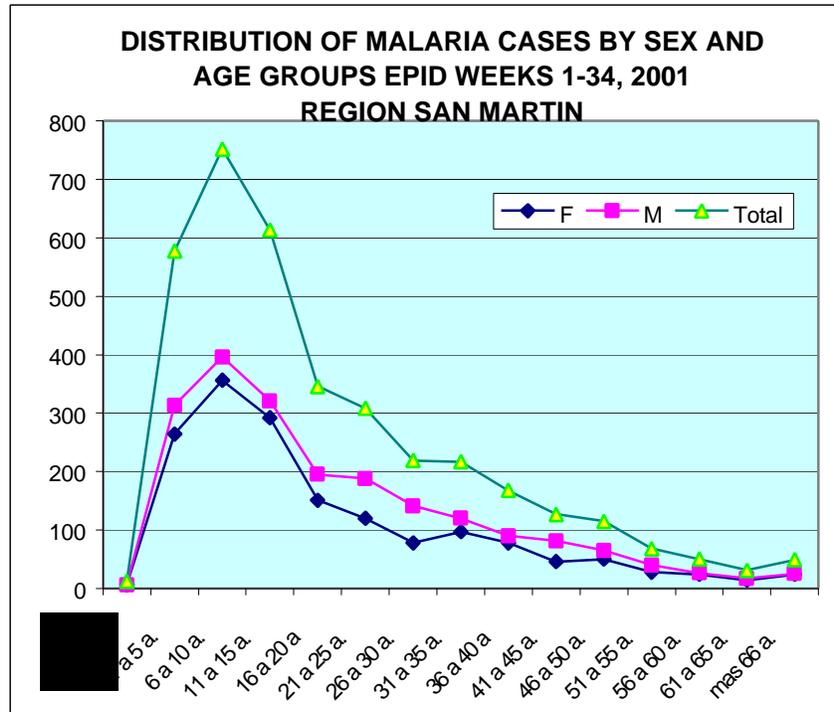
HIS data show that the health system, including community-based providers, are detecting only a small proportion of all malaria cases. Secondary cases in the same household or neighborhood where the index case lives are not routinely sought. The proportion of malaria cases that comply with the treatment seems very high.

The project conducted a first round of monitoring using LQAS in 38 households in the supervision area endemic for malaria.

Four of 38 mothers (10.5%) reported that their children had malaria cases in the last year. The number of cases is too small to draw firm conclusions about home-based management. Still, while all mothers continued giving liquids to the sick child, only half continued offering foods during malaria. The goal for the next year is to maintain a rate of 100% for children with malaria being given more liquids and 60% for being given the same or more food. Only 6 out of the 38 mothers said children should be fed frequently during episodes of malaria. Thirty-one mothers (81.5%) mentioned that bednets can protect against malaria. The median time that the child is placed under the bednet is 6:50 pm – after *Anopheles darlingi* mosquitoes start biting.

Goals set for the next year: 35% of mothers will know the proper feeding frequency for children with malaria, 54% will know that energy-dense foods must be given during the recovery of malaria, 90% will name bednets as a way to protect the child from malaria.

Graph 4



OR and related topics suggested by the UPCH technical advisor on malaria

1. Objective: to describe the distribution of malaria cases by species in endemic communities. How could this help to reduce malaria transmission: a clustered distribution would be suggestive that by focusing in early detection and treatment of index cases, health promoters might be able to stop effectively the transmission.
2. Objective: explore help seeking behaviors. How might this help: Malaria can be controlled. if over 90% of cases are treated by a trained provider having the resources for a proper diagnosis and treatment, A large proportion of cases going to untrained providers (traditional healers, stores selling medicines) will be suggestive that many treatments will not be effective in stopping transmission.
3. Objective: to evaluate economic, cultural, physical access to quality services for malaria control. How might this help: the identification of barriers to close the gap between patients and providers.
4. KPC survey among patients and providers on malaria control
5. Objective: Measure the proportion of febrile cases that are due to malaria, with a comparison group of subject with no symptoms. How might this help: the proportion of malaria cases that are asymptomatic reflects a high transmission, and are a source of new cases.
6. Objective: Comparison of the efficacy of short courses of treatment with standard treatment. Benefits: shorter courses might be as effective and cheaper.

7. Objective: Measure compliance with the treatment. Benefit: lack of compliance might explain high malaria rates.
8. Objective: Explore the association between migration and malaria transmission. Benefits: by focusing malaria control in areas where migration rates are higher.
9. Objective: to identify the place where malaria is acquired. Benefits: the distribution of cases by age is suggestive that most malaria cases acquire the diseases at home.
10. Objective: exploration of associated factors: environmental. Benefit: breeding sites can be controlled if those environmental risk factors are identified.

This expert did not specifically address current control of larvae using larvivorous fish nor malaria and pregnancy.

At the request of DIRES-SM, the project facilitated the training of 400 health workers in the prevention of vector-transmitted diseases including dengue, emphasizing surveillance, vector control, and improved IEC methods.

A.7 Combined Morbidity: Diarrhea, Cough and Fever

Given the fact that only a few number of children has had one specific disease in the previous two weeks, this section analyzes the management of sick children.

Table 7: LQAS Summary Results – Child Morbidity

HOPE Peru CS-XVI												
Results from 1 st Round of LQAS Monitoring: September – November 2001												
#	Indicator	Total Correct in Each Supervision Area					Total Correct in Project	Sample Size for Area	Total Sample Size	Average Coverage (%)	Revised Goal for Year 2	
		Tabalosos	Barra Pongo	Papa Sauce	Dorado	Lamas						
1	Knows signs of danger in general (<6m)	<u>3</u>	10	<u>5</u>	<u>5</u>	<u>5</u>	28	19	95	29.5	40	
	Decision rule	3	3	3	3	3						
2	Knows signs of danger in general (6-23m)	<u>2</u>	7	5	5	<u>2</u>	21	19	95	22	40	
	Decision rule	2	2	2	2	2						
3	% of children that were symptom-free (6-23m)	8	<u>4</u>	<u>4</u>	1	8	25	19	95	26.3	45	
	Decision rule	3	3	3	3	3						
4	% of children free of diarrhea (<6mo)	15	18	8	8	19	68	19	95	71.6	60	
	Decision rule	12	12	12	12	12						
5	% of children free of diarrhea (6-23m)	13	13	13	<u>12</u>	14	65	19	95	68.4	60	
	Decision rule	11	11	11	11	11						
6	% of children free of cough (<6mo)	11	<u>8</u>	<u>7</u>	5	14	45	19	95	47.4	60	
	Decision rule	7	7	7	7	7						
7	% of children free of cough (6-23mo)	9	8	<u>6</u>	4	10	37	19	95	38.9	60	
	Decision rule	5	5	5	5	5						
8	% of sick children that were given more liquids	10	12	10	10	7	49			70	70.0	95
	Decision rule	2	3	3	4	2		11	15	15	18	11
9	% of sick children that was given more/same food	5	8	7	9	1	30			70	42.8	55
	Decision rule	7	15	15	12	7						

Underlined: under average coverage

Bold: under Decision Rule

Recommendations:

- Focus on continuing feeding the sick child with solid foods. More OR studies should be proposed to identify cultural and other barriers to facilitate behavior change in all SAs.

A.8 Child Spacing

The new national administration changed the policies on child spacing, claiming that the right of couples to take informed decisions on family planning had been ignored before. As a result, most activities planned for Year 1 were rescheduled to start in Year 2. The only activity that continued was to start designing training curricula for health workers. These curricula will be validated with graduate students from the local School of Midwifery.

DIRES-SM has 197,542 women in fertile age, and their plan was to provide access to family planning (FP) methods to 50,857 of them. According to the DIRES-SM HIS, until August 2001 FP coverage (use rate) was 64% at the regional level. Methods more commonly used were injectable and oral anovulatives. Previous studies (DHS, KPC surveys in this area) suggest that FP use rate is probably under-estimated.

The first round of project monitoring with LQAS did not include questions on FP practices. Still, it showed that 80.9% of the infants had a birth interval of 24 months or higher. Both health promoters and BFSG coordinators will continue promoting child spacing using effective methods.

LQAS showed that 37.6% of the children visited had an institutional birth. 41.7% of the women were assisted by a trained provider during their last birth. The goal set for Year 2 is to have at least half of the births assisted by a trained provider. DIRES-SM also asked the project to set the goal of having at least 50% of institutional births. Although the project had not set objectives for maternal and newborn care in the DIP, community-based providers are already currently promoting Maternal Insurance and institutional births.

The project will start an operational research aimed to increase the participation of males in the adoption of FP methods. Previous contacts with a staff from selected health center (Sinami, El Dorado) showed that males do not get involved, due to low educational levels, “machismo”, and religion. Counseling is offered only to women, and there are no educational materials for men. This OR will approach male groups – such as soccer clubs to explore the perceptions of males on FP, cultural and other barriers and negotiate a way to have men involved in the choice and proper use of FP methods.

Table 8: LQAS Summary Results – Child Spacing

HOPE Peru CS-XVI		Results from 1 st Round of LQAS Monitoring: September – November 2001													
#	Indicator	Total Correct in Each Supervision Area					Total Correct in Project	Sample Size for Areas					Total Sample Size	Average Coverage (%)	Revised Goal for Year 2
		Tabalosos	Barra Pongo	Papa Sauce	Dorado	Lamas									
1	% of mothers with children with birth interval 24+ months	20	<u>19</u>	25	<u>18</u>	16	98	24	25	31	23	18	121	80.9	80.9
	Decision rule	18	18	22	17	13									

Underlined: under average coverage

Bold: under Decision Rule

Recommendations:

- Continue and maintain same efforts on child spacing activities.

A.9 IMCI

The project continued developing the community IMCI strategy, plans and tools (guides, job aids, training plans) with the PAHO-Peru office as a partner. Project HOPE is committed to adapt the IMCI technical manual for community health promoters to the characteristics of the Amazon Basin. The first manual was developed for departments located along the Coast of Perú. The MOH has requested PVOs to adapt it to the other geographical regions. CARE will adapt the manual for the Peruvian highlands, while HOPE will do it for the Amazon Basin.

Project HOPE will start the implementation of Mothers' Reminder Material (MRM) Project during 2002. This project will complement IMCI efforts in the RSM with the development of "reminder" tools for mothers and caregivers at home to: (a) identify danger signs of major childhood diseases; (b) promote timely health-seeking behavior; and (c) improve home prevention. HOPE will coordinate activities with the Regional MOH, PAHO, local NGOs, and other PVOs working in Peru for the implementation of this project. Materials are expected to be produced and distributed by early Fall 2002.

A.10 Capacity Building

Universidad Peruana Cayetano Heredia (UPCH): The project has this academic institution as one of the main partners. The Dean of the School of Public Health, a specialist in the control of infectious diseases, visited the project area to develop recommendations to improve the malaria control interventions (see malaria section). The Dean also explored future involvement of MPH students in project activities. Even though UPCH's campus is located in Lima, UPCH has been involved in outreach activities into the

Amazon Basin. Its Tropical Medicine Institute is in charge of a Telemedicine project in the Huallaga Valley and is looking for partnership with Project HOPE.

Two faculty members submitted a proposal to Ajinomoto Corp (Japan) for the development of a local product fortified with micronutrients (see micronutrient section) in the project area, and the proposal was funded.

UPCH sent a faculty member to the LQAS workshop to help with the facilitation. UPCH also sent a faculty member to structure a proposal of codes for community outreach activities consistent with the international classification of diseases, to be included in the HIS. Currently the HIS captures only a few outreach activities. This classification will use the ICD-10 classification system. DIRES-SM is also participating in this task, through its Epidemiological Intelligence Office.

During the last year, no medical or nursing student has rotated in the project, but the School of Dietitians from the *Universidad Femenina del Sagrado Corazon* in Lima, sent two interns that stayed for three months in the field.

Local Governments: Municipalities—in the context of a health reform including decentralization of health management—have become key partners in achieving sustainability, particularly in community IMCI. The project involves six district municipalities. The project plans to sign formal letters of intent with 5 municipalities and the provincial municipality. In the last year municipalities continued sponsoring the attendance of health promoters to workshops. In the next year, the project will provide TA to the municipalities to produce a health plan. Topics to be addressed will be: a) Community participation; b) Community Management; and c) Community development plan.

It is expected that by adding health objectives into the agenda of the local governments, they will become more involved in the promotion of preventive practices and the improvement of the quality of health services and co-fund those efforts.

MOH Health Networks: The project is participating in a network of NGOs/PVOs that are active in RSM. The network is a space to share lessons learned, disseminate procedures to increase efficacy, and contribute to achieve consensus on the development plan for this region. The network is promoting community participation and community based surveillance.

Project HOPE is chairing the Regional Committee on Food and Nutrition. This Committee coordinates food and nutrition interventions conducted in this region by public and private institutions, including the MOH, Ministry of Education, the National Feeding program (PRONAA), the local University and local producers such cattle growers. The objectives set for July-December 2001 were: a) to improve the impact of food and other social programs to aid disadvantaged groups, b) to improve the knowledge of basic nutrition among managers and technical staff of those programs, c) to promote norms to protect food and d) surveillance of the nutritional, bacteriological and chemical quality of foods.

Health networks: the project is a source of TA to improve management and technical quality in rural health facilities. The project helps in identifying obstacles, proposes improvements, and helps in the assessment, including the M&E system described above. During frequent visits to rural communities (staff spend over 50% of their time in rural communities), health promoters and community leaders provide useful input in how to improve health services. At the end of the month, the health network meets with project staff to get feedback.

B. Challenges

Table 9 summarizes the main challenges faced by the program in the last 12 months.

Table 9: Project Challenges, Strategies to Overcome and Progress

Challenges	Strategy to overcome them	Progress, if any
Social unrest in the country due to the collapse of the GOP; frequent changes of MOH authorities; change in policies; uncertainty to conduct facility assessments; MOH left without capacity to plan in the long term	Negotiation with new authorities Direct coordination with decentralized health networks Improved communication with MOH – central level	Good coordination with MOH at the national and regional level
MOH decided to switch to ICD-10 new codes for diseases affected the progress made with the classification of community outreach activities. Lack of information to assess progress.	Project activities (mostly preventive) will be classified according to the new ICD-10. Quality control of HIS data LQAS to feed the decision-making process.	A letter of intent signed with Statistics Dept-MOH to produce the classification of preventive activities. QA of HIS data: not satisfactory. LQAS round completed, data analyzed.
Not enough human resources to supervise an extensive rural area. Dropouts in MOH staff.	HOH staff actively involved in outreach activities Integrate CS activities with VHBs Nutrition interns helping with OR	In El Dorado, 3 BFSGs converted in VHBs 2 interns rotated in the project area
Low staff retention rates	Provide training opportunities and other incentives	Anonymous surveys to all staff allowed free communication on interpersonal issues No new resignations occurred
Difficult transportation, rough roads damage project vehicles	Share VHB vehicles. Purchase a new vehicle.	Vehicles are shared. Additional resources being sought.
Most health promoters are male, can not provide reliable BF counseling	BFSGs (GALMES) are incubators for female leadership	New female coordinators trained.
Lack of referral instruments	Design a form	Form designed, being tested
Lack of maternal knowledge on danger signs	Maternal reminder materials to be designed	Activity under development
The project fails to change dietary management of child illnesses	Explore cultural and other obstacles	Formative research being conducted using focus groups

C. Technical Assistance Required

Given the limited availability of HQ staff to participate in the training of MOH workers in the control of micronutrient deficiencies, the project will enroll a local consultant with this expertise. The workshop will be funded by Sight and Life and conducted in early 2002.

The project needs assistance in developing systems to follow-up training activities, particularly to assess if training has effectively changed practices, performance, QA of institutional and community providers

The project needs assistance to improve counseling skills in community-based providers, to improve the quality of health education. Currently, HOPE is hiring a regional health education specialist to backstop programs in the Americas.

Most of the technical assistance (TA) in monitoring and evaluation (M&E) has been obtained locally. CSTS will continue as a source of TA in LQAS, HFA and other M&E topics.

D. Substantial Changes from the DIP

Community pharmacies: The project will not create new pharmacies but support existing ones. MOH Health facilities will have a checklist for essential drugs and medical supplies, such as ORS. LHCs will visit community pharmacies to learn if there are stock outs, addressing the reasons.

The project has not been able to establish community integrated health units (CIHUs) as expected. The goal of 63 CIHUs stated in the DIP has been revised. The new goal is 51 CIHUs by the end of the project. This new goal has been carefully obtained based on accessibility of health facilities in remote rural communities. The progress on established CIHUs will be reviewed at mid-term.

No other substantial changes from the DIP are planned. The budget remains unchanged.

E. Responses to the DIP Consultation

Revised behavior change strategy

The project does not work directly with adult males. Given the fact that we work with a migrant population that is young, there are very few grandmothers. Still, since in most instances the decision of what agricultural goods to produce is left to men, the Project will explore with local NGOs and CAs—such as United Nations representatives in this area- if the crops being promoting include at least some with nutritional value for children. Those community development projects might stimulate the production of a cash crop, while at the same time ensuring that families have a way to increase food security with other crops (corn, beans, peanuts).

Explicit behaviors aimed at agricultural technicians from CAs and local government:

- Motivate the diversification of agricultural production as a protection against a fall in commodity prices. The province of Lamas had just increased the surface growing coffee just before international coffee prices dropped.
- Promote peanuts, beans and tropical nuts to complement rice or corn.
- Discourage the monoculture of nutrient-poor foods such as cassava and plantain
- Educate men : When you take your products to the market, use the profits to buy nutritious foods that you do not produce for your children such as oils and fats, fruits if not available locally, fortified foods, animal foods such as eggs.
- Educate men to invest profits in home improvement with health impact: window screens, hand pump, latrine.
- Educate men to set aside part of their earnings for health care
- Promote community participation to put health objectives in the agenda of the local government

Strategies more specific and options to decision-makers

The different strategies that the project uses are addressed throughout the description of technical intervention progress in this report.

Community Component: Community Groups

The different community groups that the project uses and targets are described throughout this report. However, here is a description of the main ones:

Breastfeeding Support Groups (BFSGs, or GALMEs in Spanish): these are organized groups of mothers who receive support and information on benefits of BF promotion from project staff, health promoters, and health workers. They have become very active in their communities and have been institutionalized in most of the project target areas. BFSGs have the main function to advise and support mothers on knowledge and practices of BF. The effectiveness of BFSGs are measured by BF project indicators.

Local Health Committees (LHCs): these are organized groups formed by community leaders: health promoters, vice-mayor, “apu” (indigenous leader), and the deputy governor of the province. The main goal of LHCs is to discuss health issues affecting the community, and to make decisions for planning and coordination with local authorities. LHCs are becoming more proactive in managing health resources. Their effectiveness are measured by overall project indicators.

Community Oral Rehydration Units (CORUs): these are oral rehydration centers that functions out of community health promoters’ houses. Their main objective of CORUs has been to provide information, counseling, and supplies to mothers and caretakers who seek health-care support for diarrhea case management. CORUs placed in areas with no health facilities within two hours of distance will be converted into CIHUs. (see next community group description).

Community Integrated Health Units (CIHUs): the project is introducing these units as the Region is adopting an integrated approach for management of childhood diseases. CIHUs will provide a range of services including preventive information, counseling, treatment, supplies, and referrals to mothers and caretakers who seek health-care support for their

children, on mostly diarrhea, respiratory infections, and malaria in endemic areas. They will also provide information on immunization schedules and their benefits. CIHUs, located in remote areas without nearby health facilities, will be run by health promoters with the support and supervision from health networks. Their effectiveness are measured by project indicators related to diarrhea, pneumonia case management, and malaria.

Definition of functionality and quality indicators

Functionality reflects a result-driven approach. HOPE is adding the following quality indicators, which were not included in the DIP:

Objective: Capacity building at HQ.

Indicator: Project HOPE playing a leading role for the PVO community through networks such as the CORE Group. Other PVOs adopting models developed by HOPE. This has been achieved in part: CARE started a partnership with Procter&Gamble to develop and test an iron fortified product, after HOPE did a similar activity in Peru. HOPE has one staff member in CORE's Board, and two other staff members chairing CORE Working Groups.

Objective: Capacity building at the Regional MOH office, DIRES-SM: Other DIRES following the lead of DIRES-SM. This has been achieved: Project staff has presented Nutrition Education modules developed in SM for MOH staff in National gatherings. HOPE and DIRES-SM are adapting the C-IMCI manual for the entire Amazon Basin area, covering over a third of Peru's surface.

Progress using integrated materials for training health staff/HAs

This question has been addressed throughout the description of interventions in this report.

Discuss the project's phase-out plan

The DIP did not explicitly describe the phase-out strategy. However, since 1998, HOPE Peru has been proactively working in the process of transferring project activities to the MOH (see Table 10 below). This was a very formal process. HOPE is aware that the legal framework is only a beginning, and that it does not ensure sustainability by itself. HOPE will continue working on two fronts: the formal procedures to get binding, strong commitments from project partners –particularly the MOH, that suffered from the recent political unrest before and immediately after President Fujimori resigned. HOPE will also continue the process of institutionalization of an integrated work of community members and MOH workers, in bimonthly meetings. Supervisory visits to rural communities will be conducted jointly with MOH staff. Project HOPE staff gradually will reduce its participation in those visits, particularly in communities where organizations active in promoting health function regularly.

Table 10: Project Phase-Out Plan

Activities	Year 1				Year 2				Year 3			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Strengthening joint supervision inside micro- networks			x		x							
Strengthening joint (HOPE- partners) supervision inside health service networks				x								
Supervisory visits lead by the MOH					x	x	x					
Spacing site visits, conducted by MOH staff						x	x	x	x			
Follow-on meetings with health facilities	x	x	x	x	x	x	x	x	x	x	x	x
Final evaluation											x	
Dissemination of results and lessons learned												x

Links with Matching Grant

New Village Health Banks have been created for women already organized in BFGs (GALMEs in Spanish). The immediate benefit is that these groups have already been exposed to health messages, thus we expect that an even larger proportion of the profits might go to improve family health and nutrition. These banks, in contrast with “regular” ones in the city of Tarapoto, are located in rural communities and members are engaged in agricultural activities. Thus, TA from CAs will be sought to advise those women and their husbands in how to balance cash crops with crops aimed to feed the family –see above.

Progress of project staff retention and impact of activities

See Section F.2.

F. Program Management Systems**F.1 Financial Management System**

The program has consistently continued to provide profit and loss statements on a monthly basis. These reports are sent to the Regional Director-Finance at HQ for revision and entry into the General Ledger. The Regional Director-Finance is expected to visit the field in the Spring of 2002 for the purpose to update training of the Administrator who compiles and produces the financial reports.

F.2 Human Resources

The program has been trying to maintain and improve salary levels due to the high turn over of staff. Project retention has been improved during the first year. HOPE is planning to continue providing competitive salaries in the field, plus benefits that include professional development as well as additional life insurance for field staff exposed to rural settings.

F.3 Communications Systems

HOPE-Perú maintains good communications systems with HOPE HQ through phone, facsimile and electronic mail. The field office is hooked with the DIRES-SM server at this point. However, electronic mail has been inconsistently working, due to poor infrastructure. The program will look for alternative Internet service to use it as a back-up system when the DIRES-SM server is down.

F.4 Relationships with Local Partners

The project has continued to strengthen its relationships with DIRES-SM Health Networks in the target districts. Due to the constant changes of top management administration at the regional level in RSM, the program has constantly built and renewed its relationships with its main partner: DIRES-SM. Other local partners, like UPCH and local NGOs, have been strengthened as program activities developed.

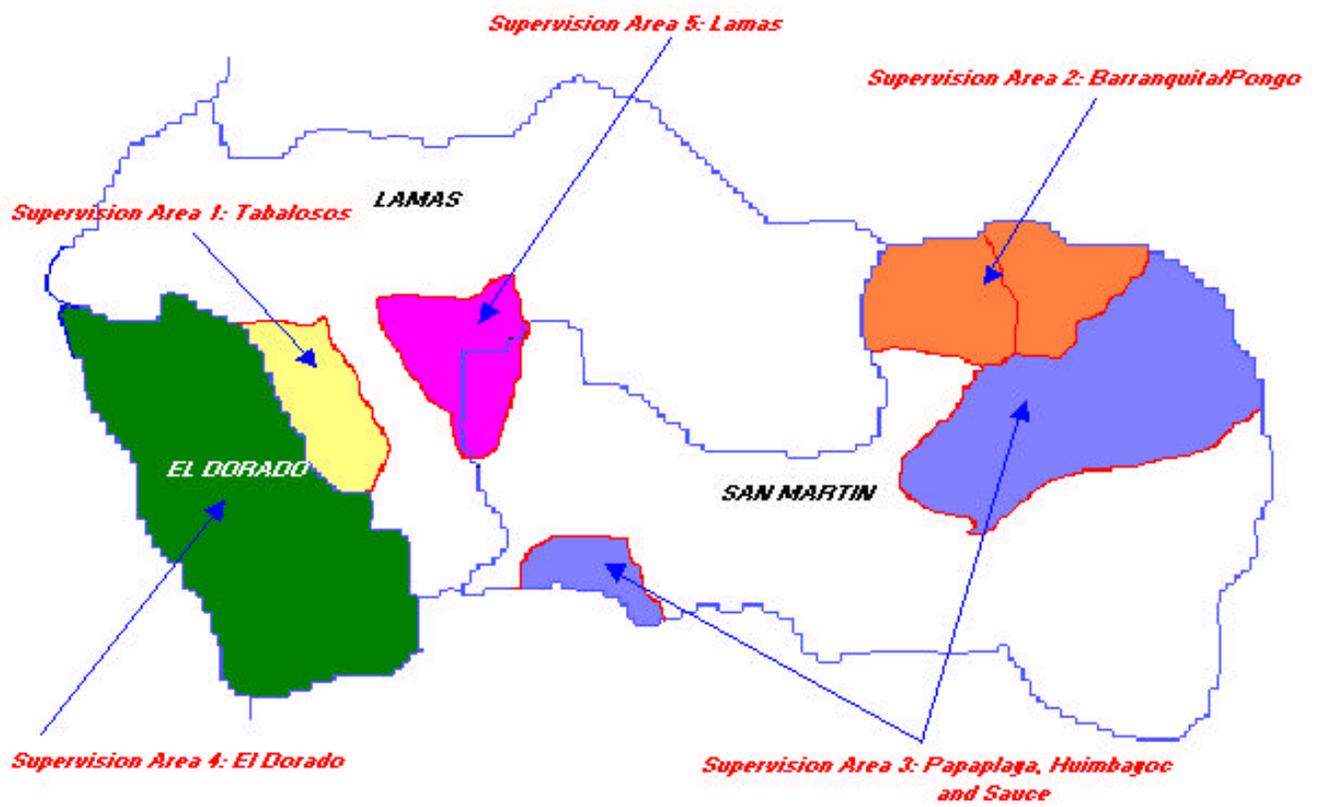
F.5 In-country Collaboration with other PVOs, CAs, USAID Mission

The program has also collaborated with CARE-Peru by inviting them to attend the LQAS training workshop held in RSM during the first year. In addition, the program has answered questions from the USAID Mission in Lima promptly.

F.6 Capacity Assessment

Project HOPE will carry out a capacity assessment of all its programs, including CSPs during 2002. Results of this assessment will be presented at the mid-term evaluation report.

Appendix 1:
Map of Supervision Areas for LQAS Monitoring



**Appendix 2:
CATCH Indicators**

PRIORITY CHILD HEALTH INDICATORS (Rapid CATCH) – HOPE CS Peru, 2001

1. Percentage of children age 0–23 months who are underweight (<2 SD from the median weight-for-age, according to the WHO/NCHS reference population): **Not part of LQAS**

Prevention of Illness/Death

2. Percentage of children age 0–23 months who were born at least 24 months after the previous surviving child : **79.8% (CI= +/-9%)**
3. Percentage of children age 0–23 months whose births were attended by skilled health personnel: **41.7% (CI= +/- 8%)**
4. Percentage of mothers with children age 0–23 months who received at least two tetanus toxoid injections before the birth of their youngest child: **96.0 % (CI= +/- 3%)**
5. Percentage of children age 0–5 months who were exclusively breastfed during the last 24 hours: **67.4% (CI= +/- 11%)**
6. Percentage of children age 6–9 months who received breastmilk and complementary foods during the last 24 hours: **no data**
7. Percentage of children age 12–23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday: **46.0 % (CI= +/- 15%)**
8. Percentage of children age 12–23 months who received a measles vaccine: **85.0% (CI= +/- 11%)**
9. Percentage of children age 0–23 months who slept under an insecticide-treated net (in malaria risk areas) the previous night: **no data**
10. Percentage of mothers with children age 0–23 months who cite at least two known ways of reducing the risk of HIV infection: **no data**
11. Percentage of mothers with children age 0–23 months who report that they wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated: **no data**

Management/Treatment of Illness

12. Percentage of mothers of children age 0–23 months who know at least two signs of childhood illness that indicate the need for treatment: **no data**

Percentage of sick children age 0–23 months who received increased fluids and continued feeding during an illness in the past two weeks: **17.5% (CI= +/- 5%)**

Appendix 3:
Pictures from Region San Martin, Perú



Educational session with male partners



Mothers and their children from Lamas, Region San Martin



LQAS Survey in Region San Martin, Peru



Food contest on best dietary practices using available local foods