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HELEN KELLER
INTERNATIONAL

REPORT OF THE FINAL EVALUATION OF THE

HKI PHILIPPINES CHILD SURVIVAL X PROJECT

Philip W J Harvey, Ph D , Consultant
June N Pierre-Louis, Ph D , Nutrition Manager, Helen Keller International/New York

Office of Private and Voluntary Cooperation
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The authors wish to acknowledge the contributions to this report by the HKI/Philippines team The reports listed below have been particularly helpful in preparing this report They were prepared for the Child Survival X Feedback Conference on implementing child survival interventions in the context of devolution, March 12-13, 1998, Ormoc City, The Philippines

Klemm RDW, Tuason-Lopez C, Villate E, *et al* Improving the nutritional status of women and children by strengthening the reach, accessibility and access to key micronutrient and child growth interventions a preliminary report

Reario FDR Improving accessibility, availability and coverage of key child survival project interventions

Sandrino, C Strengthening local government units capability in managing community based health and nutrition program

Villate EE Action for survival, action for progress in micronutrient and child nutrition (Child Survival X Project) overview

ABBREVIATIONS

AC	Area Coordinators
ASAP	*Araw ng Sangkap Pinoy* (Philippine campaign against micronutrient malnutrition)
BHW	*Barangay* Health Workers (Village Health Workers)
BNS	*Barangay* Nutrition Scholar
CG	Child Growth
CG-BLP	Child Growth Basic Learning Package
CPC-IV	Country Program for Children-IV (UNICEF)
CSX	Child Survival X- Action for Survival, Action for Progress in Micronutrient and Child Nutrition
DOH	Department of Health
FET	Final Evaluation Team
HKI	Helen Keller International
IDA	Iron Deficiency Anemia
IDD	Iodine Deficiency Disorders
IEC	Information, Education and Communication
IOC	Iodized Oil Capsule
LGE	Local Chief Executive
LGU	Local Government Unit
LQAS	Lot Quality Assurance Sampling
MHO	Municipal Health Officer
MNAO	Municipal Nutrition Action Officer
MNC	Municipal Nutrition Committee

MNAP	Municipal Nutrition Action Plan
MTE	Mid-Term Evaluation
NCHS	National Center for Health Statistics
NGO	Non-Governmental Organization
NID	National Immunization Day
NMAT	National Micronutrient Action Team
NNC	National Nutrition Council
NS	Nutrition Service
OPT	Operation *Timbang* (annual child weighing)
PEM	Protein Energy Malnutrition
PNC	Provincial Nutrition Committee
PPAN	Philippine Plan of Action for Nutrition
PTF	Provincial Task Force
PHN	Public Health Nurse
PNAO	Provincial Nutrition Action Officer
TOT	Training of Trainers
RHM	Rural Health Midwife
RHP	Rural Health Physician (also MHO)
USAID	United States Agency for International Development
VAC	Vitamin A Capsule
VAD	Vitamin A Deficiency
WHO	World Health Organization

TABLE OF CONTENTS[1]

[1] This report follows guidelines set by the USAID Office of Private and Voluntary Cooperation (22 August, 1997)

APPENDICES

LIST OF TABLES

FIGURES

1 Summary and recommendations

a Evaluation methods, sites visited, and dates of field work

The Final Evaluation Team (FET), Dr Philip Harvey, External Consultant and Team Leader, and Dr June Pierre-Louis, Nutrition Manager, Helen Keller International (HKI), New York, visited the Philippines March 6 - 18, 1998 and during that visit undertook a 7-day field trip to three of the eight project provinces (Samar, Leyte, and Southern Leyte) The team members were participant-observers at the project's Feedback Conference held March 12-13, during which they met with over sixty members of Provincial Nutrition Committees (PNCs) and Municipal Nutrition Committees (MNCs) from all eight provinces

Evaluation methods included document review, in-depth interviews with HKI/Philippines project staff, representatives of the Government of the Philippines (GOP) nutrition and health staff at National and Regional levels, Local Government Unit (LGU) personnel who were members of PNCs and MNCs, observations of village growth posts, a mother's class, discussions with village health workers and midwives, the administration of a questionnaire to key project counterparts, discussions with UNICEF staff (the major collaborating partner other than LGUs), and discussions with politicians (two mayors and a congressman)

The team conducted two debriefing sessions at the conclusion of field work -- one with the staff of the USAID Philippines Mission, the other with Nutrition Section of the Department of Health (NS/DOH), National Nutrition Council (NNC) and HKI/Philippines staff

The itinerary of the FET is found in Table 1 1

The FET concluded that the methods described above allowed an adequate opportunity for them to discuss the project with relevant stakeholders and to understand the broad scope of this project Further, the team is confident that those involved in the project had sufficient opportunity and encouragement to describe their experiences of the project, both positive and negative, and to express their views of it frankly to the FET

During the field visit, the HKI/Philippines team did everything possible to ensure the FET had ample opportunity to carry out its work, and thus any errors made in this report are the sole responsibility of the FET

Table 1 1 Itinerary of the final evaluation team

Date	Site visited	Persons interviewed
Mar 8, 1998	-	Rolf Klemm, Country Representative
Mar 9, 1998	HKI/Philippines office, Manila	Rolf Klemm, Country Representative Ellen Villate, Project Manager Daylyn Sandrino, Project leader (trainer) Asela Querol & Dolly Reario, Area Coordinators Cecile Lim, Finance Officer
Mar 10	DOH- Regional Health Office (Region VIII)	Dr Lilia Arteche, Regional Director Emily Grande, Nutritionist
	Mayor, Catbalogan PNC, Samar	
	MNC, Catbalogan	
	Mother's class, Catbalogan, *Barangay* Health Station, Bunu-anan	Yolanda Eclipse (RHM) Rosita Tenoria (Barangay Captain) 20 mothers
	Barangay Health Station, Mercedes	Alma Anadon (RHM)
Mar 11	CS Project Regional Office (Philippines Information Agency)	
	Mayor's Office, Villaba	Vice Mayor Wilfredo S Villamar
	Villaba Town Hall	MNC Villaba Erlinda Viovicente Risarah Libores (PHN) Nimfa Tumamak (MNAO) MNC members[2]
	Barangay Jordan, Villaba, 8 Growth posts *Barangay* Poblacion del Norte, 2 Growth Posts *Barangay* Hibulanga, 1 Growth Post	BHWs

[2] Audresa Pastor Alicia Devota, Allan Chan Gloria Pelayo Vivian Viagedor, Fe Segovia, Serbano Noynay, Anecito Sanaco

Table 1 1 (continued)

Mar 12	Child Survival Project Feedback Conference, Ormoc City	PTF- Albay[3] PTF- N Samar[4] PTF- Leyte[5] PTF- Masbate[6] Jesus Camposano (MNC S Jacinto) Ophelia Sia (MNC, PV Corpus) PNC S Leyte[7] MNC S Leyte[8] PTF Biliran[9] MNC Biliran[10] Mayor Charlie Chan, Biliran DOH Region V[11]
Mar 13	Child Survival Project Feedback Conference, Ormoc City	PTF, E Samar[12]
Mar 14	Rural Health Unit, Tomas Opus	Wayne Reymundo Sy (MHO) Marilyn Dadan (PHN) Rural Health Midwives[13]
	Barangay Health Station, Tinago, Tomas Opus	BHW
	Barangay Health Station, San Augustin, Tomas Opus	BHW
	Mayor's home, Tomas Opus	Mayor of Tomas Opus
Mar 15	RHU, Maasin	Azucenar Garcia (PHN) Adelaida Asperin (PNAO) Rural Health Midwives[14] Mothers[15]
	Congressman's home, Maasin	Congressman Roger Mercado
	Barangay Health Station, Cambooc, Maasin	BHW

[3] Yolanda Guanzon, Rosemary Padua, Mariann Esquivel, Melita Alforte
[4] Concepcion Balanon, Iluminada Cesneras-Canete
[5] Cynthia Acoymo, Marina Alvaran, Cleofe Panao, Alvin Arpon
[6] Milda Medina, Marina Merioles, Salvacion Merioles-Tumblod
[7] Adelaida Asperin, Jennifer Lindbon, Nilda Rich, Nelita Gomez, Leticia Obligado-Tan
[8] Francilisa Tan, Wayne Reymundo Sy, Teodulo Salas, Sheila Tante, Marilyn Daclan, Lodovico Mosot
[9] Segundina de los Santos, Cherie Gabucan, Carlos Cotiango, Zenaido Lajara
[10] Melencio de la Pena, Avelina Serino, Lydia Uy, Lolita Rosel
[11] Josalita Camba-Armea, Melba Vera Cruz, Julita Solana
[12] Teresita Orisa, Sallie Jabinal Doris Corado, Alicia Nicart Anunchita Accion
[13] Emerita Felicilda, Erlina Daclan, Nenita Felirise, Emma Sebucao, Melchora Lacierda
[14] Rogelia Begtudio, Fedelina Gonzales Mary Ann Damas
[15] Julia Carbonilla, Josefina Carbonilla Lolita Amoncio

Table 1 1 (continued)

Mar 17	USAID Health Office, Manila	Carol Carpenter-Yaman, Chief, Office of Population, Health, and Nutrition Marichi de Sagun, Program Specialist
	UNICEF Office, Manila	Demy Bongga, Nutrition Project Officer Meera Shekar, Nutrition Officer
	NNC, Manila (at HKI office)	Maria-Bernardita Flores, Deputy Executive Director, NNC Agnes del Rosario, DOH

b Main achievements and constraints of the project

Achievements

i The project developed and implemented a model to reactivate in a sustainable way nutrition committees at provincial and municipal levels that were functioning poorly or non-functional This achievement is evidenced by

- PNCs and MNCs becoming reorganized, active, and effective,
- increased morale and skills of members which lead to subsequent success in advocacy, resource generation, integrated planning, training, and motivating involvement of others in nutrition-related activities,
- facilitation of the creativity of local innovation which was expressed, for example, in approaches to motivate volunteers in villages to increase the effectiveness of their work and the rapid construction of Growth Posts,
- participation of Local Chief Executives (LCEs -- ie Governors at provincial and Mayors at municipal levels in workshops and meetings of the project), and,
- statements of politicians, senior LGU personnel, and members of PNCs and MNCs that the model developed would be continued after HKI withdrawal

ii The project developed and promoted at all levels of the bureaucracy, a comprehensive, intersectoral view of nutrition which aimed at improving the nutrition of the whole population It recognized the importance of planning, advocating for, and managing interventions addressing the causes of identified nutrition problems In contrast, the 'old view of nutrition' focussed on supplementary feeding of children who were already severely malnourished (largely with food aid donated by the United States), a 'Nutrition Month' during which the highlight was typically a street parade, and more recently, national micronutrient supplementation days Nutrition planning was undertaken, but it was generally a fragmented and uncoordinated activity that did not achieve integration across sectors

iii The project developed excellent workshop packages for enhancing a range of skills related to group dynamics, assessing needs, planning, advocacy, and management of nutrition programs These workshop packages are complete and can be usefully disseminated throughout the country

iv The project developed methods for collecting, analyzing and using nutrition information at provincial and municipal levels for advocacy, planning and monitoring nutrition programs and policies

v The project developed a model and training package for a Community-Based Monitoring system (CBM) which enabled *barangay* (village) health workers (BHWs) to collect and present information about the nutritional situation in their communities

vi The project raised the level of awareness of LCEs regarding nutrition through effective advocacy, generated substantial resources for nutrition interventions--especially in two provinces—and expanded the project to other municipalities

vii The project developed and refined the Salt Forum, a method of promoting consumption of iodized salt which clearly demonstrated its effectiveness The Salt Forum provides the opportunity of initiating contact among producers, potential distributors, and retailers as well as health personnel and politicians to 'jump start' the free enterprise system in promoting the consumption of iodized salt

viii In collaboration with UNICEF, the project developed the Child Growth Basic Learning Package (CG-BLP), an excellent nutrition education resource that is now in strong demand throughout the country A module for training of trainers in the use of the package was also developed and widely implemented

ix The project met with remarkable success in achieving nine of the 13 behavioral objectives set in the Detailed Implementation Plan

Constraints

i Strengthening community action is inherently a process that impinges on leadership priorities and decisions at all levels, but particularly at the municipal level The MNCs then, inevitably have some vulnerability to political change This is a constraint on sustainability, but a necessary one at the current stage in the development of this country

ii Inertia was so great and local leadership and commitment so weak in two of the eight provinces and four of the 13 targeted municipalities that sustainable change was not achieved in the time frame of the project The priorities of LCEs had considerable impact, either positive or negative, on the success of the project activities in different places Although certainly not always true, female politicians appeared more likely than male politicians to support project activities There are notable exceptions to this generalization

iii The funds available to PNCs and MNCs were determined to some extent by the socioeconomic status of the local area, and hence lack of funding was a greater constraint in areas with a poor economic base, often the areas with the greatest nutrition problems

iv A constraint on the promotion of iodized salt was its relatively high price compared with uniodized salt This constraint was compounded by the apparent unwillingness, or inability, of LGUs to enforce the available national legislation to prohibit sale of uniodized salt

v Changes in the procurement of pharmaceuticals associated with devolution resulted in an inadequate supply of iron tablets in many areas

vi There was an inadequate supply of Child Growth counselling cards for large number of BHWs in the project area

vii Absence of core funding for the HKI/Philippines office

viii The last six months of the project were constrained by the economic downturn in Asia and the El Nino induced major drought which restricted options for agricultural initiatives undertaken by some MNCs This latter factor was reported as a constraint by MNC in Villaba which required the planting of food crops as part of the introduction of growth posts

ix Project activity at the village level remains at a relatively low level of intensity and this was expected to limit the attainment of potential impact on behavioral objectives The village level interventions (mother's classes, counselling mothers by BHWs using counselling cards, community-based monitoring, iron supplementation, growth monitoring, iodized salt procurement, salt testing in schools) were initiated less than one year before the endline survey This short time frame was necessary because interventions requiring organisations to adopt new ways of operating take time, particularly when the catalyst for change has no formal line of authority to bring about 'change by decree' The report of the Mid-Term Evaluation (MTE) noted the 6-month delay in project activities associated with the 1995 elections was beyond the control of the project

x The absence of a control group as part of the baseline and endline surveys, while generally not used for Child Survival projects, limits the strength of conclusions that can be drawn relative to project impacts on behavioral objectives

c Main conclusions regarding capacity building

i The model developed in this project was highly appropriate for the place, the time and the population for which it was designed The two components -- strengthening the management capacity of LGUs with respect to local nutrition programs, and improving

the delivery of key child survival services -- complemented and hence strengthened each other

ii In two (Samar and Southern Leyte) of the eight provinces, reactivated PNCs had established increased funding bases independent of HKI support, and were initiating activities in additional municipalities (eight in Samar) The reorganization of PNCs in four other provinces (Albay, Biliran, Leyte, Masbate) was successful in that it resulted in sustainable positive impact, but in the remaining two provinces (North Samar and East Samar), the PNCs had not yet overcome constraints

iii High quality resources for nutrition advocacy and education, as well as training modules on a variety of topics, were produced and these will contribute significantly to expanded implementation of child survival activities by the GOP

Some resources are transferable immediately to other areas of the Philippines, and to other countries in which the administration of the health services has been decentralized These include the CG-BLP, the training of trainers course on child growth interventions, the strategies for Salt Fora, the training modules on re-engineering provincial and municipal nutrition committees, the protocol for a simple community-based monitoring system, and the training modules on conducting technical updates for micronutrient malnutrition

Other project components could be usefully disseminated but first need further development These include refinement of the initial approach to politicians and an information package given to incoming politicians, strategies for increasing LGU investment in the initial phases of the project, and the refinement of monitoring systems for both supervision of project activities and project management

iv The implementation of the model by the HKI/Philippines team was exemplary The members of this team were highly skilled, committed and motivated people and were excellent role models for PNC and MNC members Implementation of the model was characterized by strategic planning, excellent communication, careful attention to detail, and a large measure of enthusiasm

v At the national level, the HKI/Philippines team have contributed substantially to improved capacity of the GOP to implement nutrition-related interventions throughout the country HKI is a member of national nutrition advisory groups and receives numerous ad hoc invitations to advise on policy and program issues from senior GOP personnel

d Main conclusions regarding the success of the project in meeting its objectives

The project achieved outstanding success in meeting or exceeding nine of 13 of the behavioral objectives specified in the DIP Comparisons between results of the endline and the baseline surveys showed an impressive list of achievements including

- improvements in weight-for-age of young children,
- increased rate of exclusive breast feeding of infants < 4 months,
- improved complementary feeding of infants 6-11 months,
- increased coverage of vitamin A supplementation and consumption of vitamin A-rich foods,
- increased coverage of iron and iodized oil capsules (IOC) for pregnant women,
- increased use of iodized salt, and,
- reduction in prevalence of goiter and anemia for women of child bearing age

An increase in socioeconomic status was observed during the period of the project and this probably had a positive impact on some of the indicators used to assess achievement of objectives Nevertheless, analyses using logistic regression allowed the creation of an 'internal control group' and offer strong statistical evidence to support the conclusion that the project activities did have a positive impact on some of the objectives independent of socioeconomic factors

Recommendation 1
Vigorously pursue funding for a follow-on project

Problem identified by FET Funding has finished, but the impact of this project has not yet been fully realized The time frame to realize the potential impact of the overall intervention was too short The job has not yet been completed The efficacy of the model (whether or not the model can work in an ideal situation) has been established, but its effectiveness (whether or not the model does work under typical program conditions) has not The latter needs to be established before the model is disseminated

Recommended action Pursue funding for a follow-on project that takes this project's activities to scale

Organizations to implement the recommended action HKI/Philippines, HKI/NY, USAID BHR/PVC

When the recommendation should be implemented Immediately

Recommendation 2
Prepare and package those components of the project that are 'complete' for dissemination to other organizations in the Philippines

Problem identified by FET There is a strong demand for effective interventions for nutrition in the Philippines, particularly those which work in the context of devolution Some resources developed in this project are ready for dissemination

Recommended action Prepare and package those components of the project that are 'complete' for dissemination to other organizations in the Philippines Refine and

develop manuals of selected nutrition education, planning, advocacy, resource generation, re-engineering workshop materials These can then be made available to GOP, the USAID-funded Local Government Performance Program (LPP), NGOs and other organizations working in health and other sectors Examples of resources ready, or close to ready for dissemination are

- CG-BLP, including the training materials for mother's classes and home counselling cards,
- training of trainers course on Child Growth interventions,
- strategy for organizing Salt Fora,
- training modules on re-engineering municipal nutrition committees,
- protocol for a simple community-based monitoring system, and
- training modules on conducting technical updates for micronutrient malnutrition

Organization to implement the recommended action HKI/Philippines

When the recommendation should be implemented As soon as funds become available to hire the required personnel

Recommendation 3
Strengthen particular aspects of the model

Problem identified by FET Further refinement of the model is desirable and the HKI/Philippines team is best able to do this

Recommended action Strengthen particular aspects of the model such as

- the political approach to LGUs--nutritionists must learn to speak a different, more 'political language'--a guide or manual is required for this,
- a 'Mayor's (or local leader's) Nutrition Kit' for newly-elected officials (elections are planned for May 1998), which might include a simple graphic profile of the nutrition situation of the municipality, description of proven interventions, description of the nutrition 'software' and 'hardware' needed to implement the interventions, list of places and/or institutions offering the software and hardware, and estimated costs,
- 'matching fund' schemes as a means to increase LGU investment in the project activities from the outset,
- monitoring systems to ensure that the activities are implemented as designed at the *barangay* level and that adequate supervision and support is offered by PNCs to MNCs, this could be achieved through the development of a system for collecting, analyzing and reporting information in a 'LGU Report Card' format to report on 'process indicators' (such as LGU budget allocation for nutrition, use of local data for prioritizing nutrition plans) and 'output indicators' (such as coverage of key child survival services),
- skills in setting priorities

Organization to implement the recommended action HKI/Philippines

When the recommendation should be implemented As soon as funds become available to hire the required personnel

Recommendation 4
Publicize the experiences of the project to a wide range of audiences through professional journals and newsletters

Problem identified by FET The implementation of this project provides an excellent example of how to strengthen the capacity of government institutions to implement child survival activities The story of this project and the lessons learned should be disseminated within the country and to other countries in which the administration of government services has been decentralized

Recommended action Publicize the experiences of the project to a wide range of audiences through professional journals and newsletters

Organization to implement the recommended action HKI/Philippines, HKI NY

When the recommendation should be implemented As soon as funding permits

Recommendation 5
Find core funding to support the HKI staff in the Philippines

Problem identified by FET The HKI team in the Philippines has established a unique position in relation to supporting the GOP in development of nutrition policies and programs The advice of the team has been invited regularly by GOP decision makers and this favorable situation has been achieved because the HKI team has earned the trust and respect of GOP personnel

Currently, support to provide this advice is pieced together through project funds such as the Child Survival X (CSX) project described in this report But using project funds such as these is not ideal because objectives are difficult to quantify and the tasks are sometimes not directly related the focus of the project Providing the HKI team the support necessary to allow it to respond appropriately to invitations to advise senior nutrition staff of the GOP would constitute a cost-effective investment in bringing about improvements in the nutritional situation at a national level in the Philippines

Funding for a core team is required to facilitate this important function An estimated $150,000 per year will be necessary to fund HKI's core team of three to four technical staff, including the country representative, and three administrative/finance staff, and to cover the costs of office rent and utilities Without core funding, this function of the team is not viable

Recommended action Seek funding to support a core HKI staff in the Philippines

Organization to implement the recommended action HKI/Philippines, HKI NY,

When the recommendation should be implemented Immediately

2 Project background

a Date when child survival activities started at this site

The activities of this project started 1 October, 1994, the effective date of the Cooperative Agreement

b Project beneficiary population, interventions and objectives

The number of children under 5 years served by the project was 1 50 million and another 0 17 million children were aged 59-72 months for a total of 1 67 million children under 6 years targeted for the Vitamin A component of the project (Table A) With 1 67 million women of child-bearing age also targeted in this project, the total number of beneficiaries, 3 34 million, makes this one of the largest of the Child Survival (CS) projects funded by the PVC Office at this time

The objectives, planned inputs and outputs, as stated in the DIP, are listed in Table B

Refinements to the objectives stated in the DIP were made after preliminary results of baseline survey were available These refinements, together with the rationales for change, were set out in the First Annual Report of the project and again in the proposal for the no-cost extension to the project These refinements to objectives were entirely appropriate

The Mid-Term Evaluation (MTE) identified the absence of process objectives for the capacity building component of the project in the DIP as a barrier to effective monitoring and evaluation of the project The MTE proposed a set of process indicators and these were refined subsequently by the project team The refined process objectives are shown in Table 2 1 The definition of the process indicators following the MTE enhanced the ability of the implementation team to achieve implied objectives and did not result in any change to original direction of the project as proposed in the DIP

DIP TABLE A FIELD PROJECT SUMMARY

Helen Keller International/the Philipppines | Project Duration (mm/dd/yy) | start date October 1 1994 | estimated completion date September 30, 1997

1 BUDGET SUMMARY IN U S DOLLARS

(a) a By year of project	(b) USAID Contribution (field + HQ)	(c) PVO Contribution (field + HQ)	(d) Total Contribution (field + HQ)
Year 1	$193 258	$71 005	$264 263
Year 2	$250 861	$81,239	$332 100
Year 3	$257 900	$83 866	$341 766
Country project total	$702 019	$236,110	$938 129

b Percent of PVO Match	25%
(PVO Contribution divided by Total Contribution sum of column c divided by the sum of column d)	

2 SIZE OF THE POTENTIAL BENEFICIARY POPULATION

Note POTENTIAL BENEFICIARIES are defined as those in the project area who are eligible to receive services for a given intervention not the percent you expect to provide services to – which may be smaller than the eligible population

(e) a Current population within each age group*		(f) Number of Potential Beneficiaries
infants 0–11 months		194 000
children 12–23 months		188 000
children 24–59 months		710 000
children, 60–71 months	(If Vitamin A component)	174 000
females 15–19 years	(high risk pregnancy)	342,000
females, 20–34 years		848 000
females, 35–49 years	(high risk pregnancy)	482 000
Other (specify)		
Other (specify)		

b Additional births	
Total estimated live births years 2 and 3	404 000

c Total Potential Beneficiaries	3 342 000

* Note Females (ages 15 – 49) should only be included as potential beneficiaries where they are direct beneficiaries of services (for example TT immunizations or family planning services) and not for educational interventions (for example education on proper use of ORT)

3 PERCENT OF TOTAL USAID CONTRIBUTION by INTERVENTION

Percentages must add to 100%

INTERVENTION	Percent of Project Effort (%)	Percent of USAID Funds in US $
a Immunization		$0
b Control of Diarrheal Diseases		$0
c Nutrition	40	$280 808
d Vitamin A	30	$210 606
e Iodine and Iron	30	$210 606
f Control of Pneumonia		$0
g Maternal Care/Family Planning		$0
h Malaria Prevention & Management		$0
i HIV/AIDs		$0
j Other (specify)		$0
k Other (specify)		$0
l Other (specify)		$0
m Other (specify)		$0
TOTAL	100%	$702 019

4 CALCULATION OF USAID DOLLARS per BENEFICIARY per YEAR

a Total USAID Contribution to Country Project (sum of column b In table 1 this page)	$702 019
b Total Potential Beneficiaries (sum of column " f " in table 2, this page)	3 342 000
c USAID Funding per Beneficiary for Project (line a divided by line b in table 4 this page)	$0 21
d USAID Funding per Beneficiary per year (line c above divided by 3 years)	$0 07

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TABLE A FIELD PROJECT SUMMARY

5 ACTIVITIES Circle all activity codes that apply for each intervention

a Immunization

1 = Distribute vaccines
2 = Immunize mother/children
3 = Promote immunization
4 = Surveillance for vaccine preventable diseases
5 = Training in immunization
Other _____
(specify)

b Control of Diarrheal Diseases

1 = Distribute ORS Packages
2 = Promote use of ORS packets
3 = Promote home–mix
4 = Promote SSS home–available fluids
5 = Dietary management of diarrhea
6 = ORT training
7 = Hand washing
Other _____
(specify)

c Nutrition

1 = Distribute food
2 = Provide iron, folic acid vitamins
3 = Provide scales and growth charts
4 = Sponsor mother–to–mother breastfeeding/promotion support groups
5 = Conduct food demonstrations
6 = Counsel mothers on breastfeeding
7 = Conduct group sessions
8 = Training in breastfeeding and weaning
9 = Training in maternal nutrition
10 = Training in growth monitoring
Other _____
(specify)

d Vitamin A

1 = Vit A deficiency treatment
2 = Vit A supplementation
3 = Vit A fortification
4 = Vit A education
5 = Vit A food production
Other _____
(specify)

e Iodine

1 = Iodine deficiency treatment
2 = Iodine supplementation
3 = Iodine fortification
4 = Iodine education
5 = Iodine food production
Other _____
(specify)

f Control of Pneumonia

1 = Promote antibiotics
2 = Health education
3 = Improve referral sites
4 = Training
Other _____
(specify)

g Maternal Care/Family Planning

1 = Distribute contraceptives
2 = Promote exclusive breastfeeding to delay conception
3 = Promote child spacing or family planning
4 = Antenatal care
5 = Promote malaria prophalaxis
6 = Train TBAs in improved birth practices
7 = Family planing training
8 = Improve Referral Sites
Other _____
(specify)

h Malaria Prevention and Management

1 = Residual insecticides
2 = Larvaciding
3 = Provision of bednets
4 = Provision of commodities
5 = Treatment
6 = Health education
7 = Training
Other _____
(specify)

i HIV/AIDS Prevention

1 = Distribution of condoms
2 = AIDS education
3 = HIV testing and counseling
Other _____
(specify)

j Other Specify

_____
_____
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k Other Specify

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l Other Specify

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19

TABLE B PROJECT GOALS AND OBJECTIVES

PROJECT GOALS
1 To reduce morbidity, mortality, and disability among women and children resulting from PEM and micronutrient malnutrition
2 To strengthen community-based interventions improve breast-feeding, complementary feeding, and consumption of micronutrient-rich foods or supplements

(1) Project Objectives by	(2) Measurement Method	(3) Major Planned Inputs	(4) Outputs	(5) Measurement Method
reduce by 10%, the prevalence of weight-for-age below - 2 z scores from the WHO/NCHS median reference among infants and children younger than 24 months old	baseline and endline survey on weight-for-age	• train health workers to promote beneficial breast-feeding & complementary feeding practices • promote growth through various media channels • procure scales and growth charts from DOH & UNICEF • produce promotional materials on breast-feeding & complementary feeding	• number of *barangay* weighing posts established • number of health workers trained to promote growth • number of functional scales available at weighing posts • quality and quantity of promotional materials produced	• review accuracy of weight & counseling advice recorded on growth monitoring cards • pre/post training evaluation of health worker skills • supervisoty reports on equipment • evaluation of materials & messages
increase by 10%, the proportion of infants (6-11 months old) who consume only breast milk until they were 4 months old	baseline & endline survey	• train health workers to promote exclusive breast-feeding • promote breast-feeding through various media channels • produce promotional materials on exclusive breast-feeding	• number of health workers trained to promote exclusive breast-feeding • quality and quantity of promotional messages & materials produced	• review accuracy of counseling advice recorded on growth monitoring cards • pre/post training evaluation of health worker skills • supervisoty reports on observation of health worker skills • evaluation of materials & messages

TABLE B PROJECT GOALS AND OBJECTIVES (continued)

(1) Project Objectives by	(2) Measurement Method	(3) Major Planned Inputs	(4) Outputs	(5) Measurement Method
increase by 20%, the proportion of households that use iodinated salt where it is available	baseline and endline survey on iodinated salt using UNICEF test kits	train health workers to promote iodinated salt where it is available • develop promotional materials for National Immunization & Micronutrient Days	• iodinated salt available in stores • number of health workers trained to promote iodinated salt • number & quality of promotional materials produced	• monitoring report on iodinated salt supplies • pre-post training evaluation of health workers • review of promotional materials & messages
reduce by 10%, the prevalence of low hemoglobin concentration (<11 g/dl) among women of childbearing age (15-40 years old)	baseline and endline survey using hemoglobinometer	• procure iron folate tablets from UNICEF, NS or local government • train health workers to administer iron folate tablet to pregnant women • develop promotional materials for National Immunization & Micronutrient Days	• iron folate tablets available at health centers • number of health workers trained to administer iron tablets and counsel pregnant women • number & quality of promotional materials produced	• monitoring report on iron folate supplies • pre-post training evaluation of health workers • review of promotional materials & messages
increase by 20%, the proportion of pregnant mothers who begin to take iron supplements by the fifth month of pregnancy	baseline and endline survey	• train health workers to administer iron folate tablet to pregnant women from the fifth month of pregnancy • develop promotional materials for National Immunization & Micronutrient Days	• iron folate tablets available at health centers • number of health workers trained to administer iron tablets and counsel pregnant women • number & quality of promotional materials produced	• pre-post training evaluation of health workers • review of promotional materials & messages

TABLE B PROJECT GOALS AND OBJECTIVES (continued)

(1) Project Objectives by	(2) Measurement Method	(3) Major Planned Inputs	(4) Outputs	(5) Measurement Method
increase by 20%, the proportion of pregnant women who *continue* to take iron supplements on a daily basis for a least 2 months during the latter two trimesters of pregnancy	baseline and endline survey	• train health workers to counsel pregnant women to continue taking iron folate tablets • develop promotional materials for National Immunization and Micronutrient Days	• number of health workers trained to administer tablets & counsel women • quality & quantity of promotional materials produced	• pre-post training evaluation of health workers • evaluation of materials & messages

TABLE B PROJECT GOALS AND OBJECTIVES (continued)

(1) Project Objectives by	(2) Measurement Method	(3) Major Planned Inputs	(4) Outputs	(5) Measurement Method
increase by 10%, the proportion of infants (6-11 months old) who start to consume the Weaning Mix" when they are 6 months old	baseline & endline survey	• train health workers to promote the introduction of the "Weaning Mix" at 6 months • promote the "Weaning Mix" through various media channels • produce educational materials on the "Weaning Mix"	• number of health workers trained to promote exclusive breast-feeding • quality and quantity of promotional messages & materials produced	• review accuracy of counseling advice recorded on growth monitoring cards • pre/post training evaluation of health worker skills • supervisoty reports on observation of health worker skills • evaluation of materials & messages
increase by 10% the proportion of infants (6-11 months old) who consumed the Weaning Mix at least three time in the last 24 hours	baseline & endline survey	• train health workers to promote frequent feeding of the "Weaning Mix • promote the "Weaning Mix" through various media channels • produce educational materials on the "Weaning Mix"	• number of health workers trained to promote exclusive breast-feeding • quality and quantity of promotional messages & materials produced	• review accuracy of counseling advice recorded on growth monitoring cards • pre/post training evaluation of health worker skills • supervisoty reports on observation of health worker skills • evaluation of materials & messages
increase by 10% the proportion of children (12-23 months old who still breast-feed)	baseline & endline survey	• train health workers to promote prolonged breast-feeding • promote prolonged breast-feeding various media channels • produce educational materials on prolonged breast-feeding	• number of health workers trained to promote prolonged breast-feeding • quality and quantity of promotional messages & materials produced	• review accuracy of counseling advice recorded on growth monitoring cards • pre/post training evaluation of health worker skills • supervisoty reports on observation of health worker skills • evaluation of materials & messages

TABLE B PROJECT GOALS AND OBJECTIVES (continued)

(1) Project Objectives by	(2) Measurement Method	(3) Major Planned Inputs	(4) Outputs	(5) Measurement Method
maintain on-time vitamin A capsule coverage at 50% of preschool children (12-59 months old) who live in communities where food frequency scores indicate continued risk of VAD	baseline and endline surveys of vitamin A capsule coverage and of food frequency scores using HKI-FFM	• procure vitamin A capsule supply from Nutrition Service • train health workers • develop promotional materials for National Immunization and Micronutrient Days	• supplies of vitamin A capsules available in Health Centers • number of health workers trained to administer vitamin A capsules • quality & quantity of promotional materials	• review of monitoring reports on vitamin A capsule supplies • pre-post training evaluation of health worker skills • review of monitoring reports on vitamin A capsule supplies • evaluation of materials & messages
increase consumption of vitamin A-rich foods among preschool children (12-59 months old) until at least 67% of communities have average food fequency scores that are significantly above the HKI cutoff valus for risk of VAD	baseline and endline surveys of food frequency scores using HKI-FFM	• procure vitamin A capsule supply from Nutrition Service • train health workers • develop promotional materials for National Immunization and Micronutrient Days	• number of health workers trained to promote vitamin A-rich foods • quality & quantity of promotional materials	• pre-post training evaluation of health worker skills • special monitoring study on availability of vitamin A-rich foods • evaluation of materials & messages
reduce by 10% the total goiter (palpable plus visible) rate among *married* women of child-bearing age(15-40 years old)	baseline and endline survey palpating goiter	• procure iodized oil capsules from NS or local government • train health workers to administer iodized oil to women of child-bearing age in endemic areas • develop promotional materials for National Immunization & Micronutrient Days	• iodized oil capsules available at health centers • iodinated salt available at the household level • health workers trained to administer capsules and counsel women • number & quality of promotional materials produced	• monitoring report on iodized oil supplies • pre-post training evaluation of health workers • review of promotional materials & messages

Table 2 1 Process indicators for capacity building

1 Number of local nutrition task forces/committees that are formed, funded and operational
2 Allocation for nutrition interventions in LGU budgets
3 Number of annual provincial and municipal nutrition assessments completed
4 Number of action plans that are formulated, implemented and monitored

c Project site and location

The project was implemented in two provinces of Region V (Bicol), Albay and Masbate, and all six provinces of Region VIII (Eastern Visayas), North Leyte, South Leyte, Biliran, Northern Samar, Eastern Samar, and Western Samar These eight provinces include 177 municipalities, five cities, 5,481 *barangays* (villages), and has a total population of 4,675,879 (See map in Appendix I) Most of the municipalities are located along the coast, while the rest are either upland or lowland municipalities Two-thirds of the total population live in rural areas, while one-third live in urban areas The two major economic activities of these provinces are farming and fishing The provinces are economically unstable and are considered poverty-stricken due to the following factors

- geographical location in the typhoon belt where natural disasters can frequently jeopardize the food supply,
- very low employment rate due to lack of employment opportunities and lack of industries,
- poorly constructed roads that hinder the flow of transportation from rural to urban areas,
- constant turnover of various leadership positions because of strong political influences, and
- poor law and order

Bicol (Region V) and Eastern Visays (Region VIII) had the the highest prevalence rates of protein-energy malnutrition (PEM) in the Philippines in 1993 Results from the Fourth National Nutrition Survey conducted in 1993 show that Region VIII has the highest prevalence and Region V has the second highest prevalence of underweight among preschool children Furthermore, the 1993 survey results showed that the prevalence rates of stunting and wasting among preschool children in these two regions were among the five highest in the Philippines The Philippines "reference" standards for anthropometric indicators are below World Health Organization (WHO)/National Center for Health Statistics (NCHS) "reference" criteria Therefore, the prevalence rates would be even higher (and be defined as a public health problem) if WHO/NCHS "reference" criteria were applied to the anthropometric results of the Fourth National Nutrition Survey than using the Philippines reference criteria

Micronutrient deficiencies--vitamin A, iron and iodine--are also highly prevalent in Regions V and VIII Conservatively, one million preschool children are estimated to live in areas in these regions where vitamin A deficiency (VAD) is a public health problem Results of the 1993 National Nutrition Survey show that the prevalence rates of low serum retinol concentration among preschool children (six to seventy-one months old) exceed WHO/United Nations Children's Fund (UNICEF) criteria for a public health problem in both regions, and that the prevalence rate of night blindness exceeds the WHO/UNICEF criteria in Region VII More than 100,000 pregnant and lactating women are estimated to suffer from iron deficiency anemia (IDA) Goiter, one manifestation of the iodine deficiency, is highly endemic in several municipalities in both regions Even among school children, who are less vulnerable to iodine deficiency than infants and pregnant women, the prevalence rates for palpable and visible (total) goiter and for high thyroid stimulating hormone (TSH) exceed WHO/UNICEF criteria

The major causes of infant and child mortality in the two regions are diarrhea and acute lower respiratory infections PEM and VAD are underlying causes of the severity of these two conditions When vitamin A is provided to deficient children (six to seventy-one monthsold) diarrhea-specific mortality rates have been shown to drop by 29%, measles-mortality rates have been shown to drop by 54% and mortality from all causes has been shown to drop by 23%

Health facilities provide maternal and child health care, nutrition counseling, family planning, immunization, control of diarrheal diseases, and under-five care services These services, however, do not meet the needs of the population for a variety of reasons Outreach of health services to the rural populations is poor Medicines and medical supplies are not sufficient to meet demand Counseling on health and nutrition problems is not oriented toward the participatory processes that have been shown to be most effective in helping mothers change behavior and the technical information provided is often incorrect With the devolution of the Local Government Units (LGUs), most municipalities lack manpower because the LGUs can no longer afford to hire additional health workers

In Region VIII, some of the provinces have lower rates of nutrition and childhood diseases than others Nevertheless, all six provinces were included regardless of the provincial-level variation in nutritional deficiencies and childhood diseases because the exclusion of the better-off provinces might lead to a negative reaction among political leaders and executives that would hinder project implementation

d Summary of overall program design and collaboration with other organizations

Overall project design

The overall project design is to assist the public and private sectors to provide direct nutrition services to communities in the two project regions and to assist the DOH's nationwide campaign against micronutrient deficiencies known as *Araw ng Sangkap*

Pinoy (ASAP) The project is designed to address the distinct but interrelated roles of the public sector LGUs and National Nutrition Service (NS) of the DOH Project activities are grouped accordingly into two components (1) LGUs and (2) NS

Component 1 Local government units

In the two project regions, HKI worked directly with a variety of LGUs and their NGO partners LGU members include the provincial health board, provincial health staff, members of the provincial nutrition task force, and selected municipal-level counterparts HKI tailored its assistance to local priorities for PEM and micronutrient malnutrition HKI assisted LGU and NGO staff to

i **Assess the problem**
HKI assisted provincial teams to conduct rapid qualitative and quantitative assessments within each province to determine the possible causes and extent
of PEM and micronutrient malnutrition as well as the local resources that can be applied to solving the problems The results were analyzed and reported in a nutrition situation analysis and brief client-specific reports targeted to mayors, school principals, day care teachers, agricultural extension workers, and health staff

ii **Advocate and plan**
The devolution of nutrition planning to a provincial level means that far more emphasis will be placed on planning at the local level Therefore, HKI held advocacy workshops with LGUs, NGOs and others to raise their level of awareness about the socioeconomic and health benefits of nutrition interventions and options for solving problems HKI brought together multi-sectoral (health, education, and agriculture) provincial and municipal nutrition teams to develop local nutrition action plans HKI assisted the teams to develop objectives, design appropriate community-based interventions, allocate adequate resources, and develop a feasible time frame HKI and its counterparts selected five to ten municipalities in each project province based on the severity of the problem and the degree of willingness to co-invest local resources on community-based nutrition interventions

iii **Train**
Once the interventions have been identified, HKI will provide quality training to provincial and regional health staff, NGO staff and other professionals These professionals will then train direct service providers to implement the following interventions in their communities, as appropriate

- education on appropriate breast-feeding and complementary feeding practices
- detection and treatment of micronutrient deficiencies
- administration of micronutrient supplements prophylactically
- social marketing to promote purchase and consumption of iodinated salt and vitamin A-rich foods
- community assessment

- home and community gardening
- food preservation
- nutrition counseling
- recipe development

HKI proposes to co-invest limited seed money to LGU agents to implement specific food-based micronutrient interventions, and to monitor and document LGU coordination and implementation

iv Monitor

HKI trained regional and provincial staff trained as trainers to supervise the quality of implementation of community-based interventions by the LGUs HKI also initiated special monitoring studies to assess the progress of community-based interventions Studies included

- coverage of micronutrient supplements among target group members
- in-depth case studies of mothers' support groups
- assessment of the availability of micronutrient-rich foods
- use of educational materials by trainers and by target group members

HKI will disseminate the results of these studies to LGU health boards and nutrition task forces for appropriate action during mid-project meetings and annual program review sessions HKI will assist the LGU boards to assess progress, adapt strategies and make improvements

v Evaluate

HKI will help coordinate annual program review sessions with all levels of project implementers to assess progress and make needed modifications to the project HKI will assist the LGUs in each province to develop an annual "State of Nutrition" report for each province The "State of Nutrition" report will include simple analyses with recommendations for appropriate action for the mayor, health board, school supervisor, agricultural officer and others The report will also be used to lobby for increased local resources for nutrition from local budgets HKI will also facilitate information sharing by coordinating LGU staff exchanges and technical workshops At these exchanges and workshops, HKI will assist successful LGUs to highlight their accomplishments as a means of motivating municipalities to initiate similar interventions

Component 2 National nutrition service

HKI is a technical advisor to the NMAT and the DOH's ASAP program Therefore, HKI is uniquely positioned to assist the NS of the DOH to develop the capacity of the LGUs to implement nutrition interventions in the two project regions HKI has incorporated recommendations made by the USAID-sponsored Joint Micronutrient Expert Team for the DOH's campaign against micronutrient malnutrition and the DOH's Comprehensive Nutrition Program In this manner, HKI's assistance to the NS has extended the project's benefits well beyond the two targeted regions HKI assists the NS to

i **Advocate**
HKI works with the NS and the NMAT to produce materials to excite, inform, and mobilize LGU support for micronutrient interventions This package consists of presentation materials tailored to an audience of local officials and NGOs HKI has organized and coordinated symposia with the National Mayor's League and National Governor's League to raise awareness of micronutrient deficiencies

ii **Implement ASAP**
HKI supports the NS to design and implement its national micronutrient campaign HKI works with the DOH to develop prototypes and produce communications materials and field guides HKI also strengthens the NS capacity to design and train regional and provincial ASAP coordinators nationwide Finally, HKI assists the NS to design and conduct post-ASAP coverage surveys and to use results from the surveys to modify activities for subsequent National Micronutrient Days

iii **Review the national program**
HKI has organized national policy and program implementation reviews to assess progress towards the national micronutrient program goals This review addressed
- how to increase supply and demand for iodinated salt
- methods to mobilize LGU support for food-based micronutrient interventions
- strategies to sustain financing of micronutrient interventions
- legislation needed to facilitate fortification of common food-stuffs by the commercial sector
- strategies for how to phase out micronutrient supplementation

iv **Share information**
HKI plans included the production of a national nutrition newsletter in coordination with the National Micronutrient Action Team and the NS The newsletter would be targeted to LGUs, regional field offices and NGOs who advocate for micronutrient interventions Its purpose would be to share practical lessons about activities that are feasible and successful at the community level

v **Share technology**
HKI has built on its experience with the international and indigenous NGOs to organize several symposia The purpose of the symposia are for LGUs and NGOs to show-case appropriate technologies to prevent micronutrient malnutrition, promote linkages and share resources among organizations, and disseminate lessons learned

Specific child survival interventions and high risk groups

HKI's project emphasizes the following CS interventions and groups targeted for education

40% Nutrition interventions consist of breast-feeding promotion, weaning education, and growth promotion among mothers of infants & children than twenty-four months old (building upon HKI's Weaning Education Package) The activities are to

- train health workers, volunteers, and mothers' groups to monitor the growth of infants and preschool children and to promote their growth with appropriate breast-feeding and complementary feeding practices
- facilitate the organization of support groups for breast-feeding and complementary feeding
- broadcast dramatized radio spots to promote discrete action-based behaviors (e g breast-feed exclusively for four to six months, introduce home-based "Weaning Mixes" to complement breast milk when the child is six months old)
- during immunization contacts, distribute comics about essential complementary feeding behaviors
- train health workers to conduct effective complementary feeding demonstrations
- develop and provide tools and training to NGOs, LGUs, and mothers' groups to advocate growth promotion among infants and children younger than twenty-four months old
- provide scales and growth charts (if not available from other sources)
- promote growth as a "product' of successful breast-feeding, complementary feeding and parental caring through communications channels such as brief radio spots and support materials such as counseling cards

30% Vitamin A interventions include promotion of vitamin A from capsules for preschool children (twelve to fifty-nine months old), and vitamin A from food (including colostrum, breast milk, and fortified products) for infants (younger than twelve months old), preschool children, pregnant women, and lactating women The activities are to

- train health workers, volunteers and local government personnel to detect and treat xerophthalmia and to administer prophylactic micronutrient supplements to preschool children (twelve to fifty-nine months old) on National Immunization and Micronutrient Days
- develop nutrition communication strategies to promote increased consumption of locally available sources of vitamin A (including fortified foods) using channels such as radio spots and materials such as local recipes
- train health workers, volunteers and local government personnel to use experiential learning approaches with community groups and individual community members to develop solutions to common problems in feeding vitamin A-rich foods to infants and children
- develop and provide tools and training to NGOs, LGUs, and mothers' groups to advocate vitamin A interventions
- train community workers using local expert trainers in bio-intensive gardening with selective provision of gardening tools if necessary
- provide support to develop materials and messages to distribute vitamin A capsules to preschool children and promote vitamin A-rich foods during the National Immunization Days and National Micronutrient Days

30% other micronutrients (iron and iodine) include promotion of iron supplements to pregnant women (from the fifth month), administration of iron supplements of women of child-bearing age (fifteen to forty years old), promotion of iodized oil capsules among women of child-bearing age (fifteen to forty years old), in iodine-deficient communities, and promotion of iodinated salt for general consumption (entire population) The activities are

- Train health workers to administer iron supplements to pregnant women beginning in the fifth month of pregnancy and to employ effective strategies to promote their compliance with the recommended regimen of daily doses of ferrous sulfate and regular prenatal visits
- Train health workers to reach, and to administer iodized oil capsules to women of child-bearing age (fifteen to forty years old) in iodine-deficient communities
- develop and provide advocacy tools and training to NGOs, LGUs, and mother's groups
- Support communications to promote iodinated salt (generally branded as "FIDEL" Fortification for Iodine Deficiency Elimination) through channels such as radio spots and counseling materials
- Provide support to develop communications materials and messages to distribute iodized oil capsules to women of child-bearing age during the National Immunization Days and National Micronutrient Days

Collaboration with other organizations

Helen Keller International signed a Memorandum of Agreement in October 1994 with UNICEF to implement a four-year Child Growth Project (1994-1998) UNICEF's selection of HKI as a partner lends credibility to HKI's strength in project implementation The Child Survival Project and Child Growth Project will mutually reinforce each other since many of the educational materials, training activities and project areas will be the same or similar The Child Growth Project covers nine provinces in total, four of which overlap with this CS Project Both of the CS provinces selected in Region V are also Child Growth provinces In Region VIII, the CS provinces of Leyte and Eastern Samar are also Child Growth provinces

In addition, HKI works closely with the Department of Health (DOH) to implement the Expansion of Vitamin A Supplementation and Nutrition Education Interventions in Three Provinces of the Philippines (VITEX) Project, funded by the Health and Nutrition Office of the United States Agency for International Development VITEX has been implemented in the provinces of Northern Samar in Region IV, Zamboanga del Sur in Region IV, and Quezon in Region III HKI, UNICEF and the DOH developed "Weaning Moments" educational materials and processes for infant and child feeding that will be further developed in the CS project

In addition to projects in specific provinces, HKI works with the DOH on projects that are implemented nationwide, such as the National Immunization Day and the National Micronutrient Day Partnership with such national projects will strengthen implementation of common interventions in the CS provinces

HKI will work with private voluntary organizations and non-governmental organizations that have field offices in the eight project provinces that can be tapped to assist project activities such as training and monitoring HKI has a formal agreement with CARE International HKI also collaborates formally with Catholic Relief Services (CRS) and Adventist Development and Relief Agency (ADRA) through KAIN, the NGO Coalition for Nutrition HKI also collaborates with the Nutrition Center of the Philippines (NCP) and the National Nutrition Council as a member of the National Micronutrient Action Team (NMAT)

Comment by FET regarding the project design

The project was designed to be integrated into the changing health and nutrition infrastructure brought about by the enactment by the GOP of the Local Government Code in 1991 This law decentralized the authority to plan and manage a number of functions including nutrition and health to the provincial and municipal government units known as LGUs For nutrition, this meant substantial changes in financing and lines of authority for the two vertical hierarchies (NS/DOH and NNC) and existing committees of the NNC at provincial and municipal levels That there were no substantial changes from what was proposed in the DIP in implementation of the project in the changing infrastructure described above is evidence of impressive foresight and understanding in the project design

The project was also designed to complement and enhance the Philippine Plan of Action for Nutrition (PPAN) and to meet the strategic objectives of the USAID Philippines Mission which required inputs at both national and local level The project had three Child Survival interventions -- nutrition, vitamin A, and iron/iodine

Further, HKI guiding principles were applied to the design and this ensured the project worked through the existing infrastructure of the host countries To this end, the project was positioned as a resource for LGU personnel to access, allowing the project personnel to act as a catalyst for action rather than directing the action Project personnel spoke of this role as "leading from behind" and reported finding it challenging as well as rewarding The FET saw this "positioning" of the project as a critical factor in its success

An important aspect of the context for the project was the view of nutrition held by stakeholders in the project areas This was carefully described in the formative research of the project as the 'old view of nutrition' which focussed on supplementary feeding of severely malnourished children (largely with food aid donated by the US), a nutrition month during which a street parade was typically the highlight, and the two days each year when supplements were distributed Nutrition planning was undertaken, but it was

generally a fragmented and uncoordinated activity that did not achieve integration across sectors Previous attempts had been made at *barangay*-based nutrition interventions, but these had "faded away" relatively quickly

The major partners in this project were the organizations constituting the existing government nutrition services Before devolution these comprised two infrastructures -- the NS/DOH and the NNC These organizations had structures and/or personnel at all levels of the bureaucracy -- national, regional, provincial (PNCs), municipal (MNCs) and *barangay* (*Barangay* Nutrition Council and *Barangay* Nutrition Scholars) Before devolution clear lines of authority existed down through each of the levels in the bureaucracy After devolution, the two infrastructures remained in place, but the previous lines of authority no longer existed Devolution has had a major impact on the way health workers now see themselves as well as on finances

Personnel from both organizations are now employees of the respective LGU at their level (eg Provincial Governments or Municipal Councils) The changes in lines of authority are considered important by those directly effected by it, for example, it was made clear at the Feedback Conference that some health workers, who were 'Department of Health personnel' before devolution, now react quite negatively to that term, insisting that they now be referred to as 'Local Government personnel' These terms are symbolic of their old and new 'allegiances'

Devolution resulted in low morale of health workers This was related largely to uncertainty over future job security and also about the ability of the LGUs to maintain existing pay and conditions In one province the PHO resigned because of the uncertainty in the situation brought on by the changes The position remained vacant for two years, and health services in this province suffered because of the gap in leadership

The HKI project personnel successfully integrated the input of the two existing nutrition organizations at all the various government levels by exercising great care in its communications with stakeholders from all partners This achievement was an important factor in the success of the project, particularly in terms of sustainability

Collaboration with UNICEF on specific aspects of the project (e g , CG-BLP), was more significant at the National level than at the Provincial level HKI was able to 'fast-track' the development of the CG-BLP materials for UNICEF and collaborated closely in developing and implementing training workshops for the package

3 Recommendations of the mid-term evaluation

The HKI/Philippines project team viewed the MTE as timely and extremely useful Recommendations of the MTE were made thoughtfully and were largely followed In

instances where recommendations were not followed, the decision was given careful consideration Full details of the response of the team to the recommendations were presented in the Third Annual Report They are summarized below together with FET comment

i Project objectives and interventions

As recommended, the team reduced the scope of nutrition committee strengthening/capacity building interventions and refined interim objectives After the MTE, this effort was focussed on six provinces and 13 municipalities The technical assistance for child survival interventions remained in all eight provinces Recommendations related to the conduct of the endline survey were not followed, and this was appropriate The MTE team recommended that the sampling frame be altered so that provinces became the 'unit of measure' This was inappropriate since such a change in the sampling method would have precluded any valid assessment of change over the period of the project The rationale for the recommended change in sampling was based upon the judgement that the project " will not be able to achieve the community-based behavioral objectives as listed in the DIP" (MTE) While the Final Evaluation Team considered this judgement appropriate for the time it was made, the suggested action was incorrect from an epidemiological point of view The HKI team decision to repeat the baseline survey using the same sampling frame was appropriate

As recommended, the team applied for a no-cost extension and this was successful

ii Task forces

The MTE saw a lack of identify on the part of the Provincial Task Forces (PTFs) as a major issue for sustainability Soon after the MTE, specific workshops were implemented to take up this issue In these workshops the PTFs established their identity as 'Technical Working Groups' within the PNCs The PTFs also identified priority municipalities for follow-up and developed organizational and development roles as well as a monitoring scheme to work with the selected municipalities As recommended, advocacy events were organized

iii Training of health providers

The recommendations in relation to training were incorporated into the project interventions As recommended, the non-health personnel on the PTFs were released from further training responsibilities, although some of them insisted on continuing their training role The training of Rural Health Midwives (RHMs) was modified as recommended and 34 Public Health Nurses (PHNs) were trained in the third year of the project The omission of the PHNs in the design of the project was acknowledged in hindsight as an oversight

iv Monitoring

The process indicators suggested by the MTE were refined by the team and implemented These are likely to have made a significant contribution to the success of the project

v Human resources
The project hired one administrative assistant based in Tacloban, Samar to assist the area coordinators The project also provided the two area coordinators with cellular phones to ease the difficulty of communication between the provinces and Manila office The cellular phones contributed substantially to the productivity of the coordinators and the FET considered them highly cost-effective

vi Materials and supplies
As recommended, the project helped organize advocacy and promotion sheets highlighting local nutrition problems in the 13 priority municipalities but did not pursue the national newsletter originally proposed

vii Supervision
As recommended, supervision plans were developed to enable PHNs to monitor the activities of RHMs and for RHMs to monitor activities of BHWs Follow-up training for health workers implementing the child survival interventions was undertaken as had been planned

viii Budget management
The problem identified by the MTE of non-release of funds allocated to LGUs by UNICEF could not be resolved This issue was beyond the control of the project personnel and illustrated a major constraint in achieving technical objectives through financial assistance packages to LGUs Once the funds are transferred, control of them is often lost The HKI project avoided this problem by offering technical, rather than financial, assistance strategies

The MTE noted that the project was substantially underspent This situation was rectified by the time of the final evaluation

Following the recommendation of the MTE, a proposal was submitted to USAID for a follow-on project under CS XIV funding

In summary, most of the MTE recommendations were entirely appropriate and were recognized as such by the project team The response of the project to the recommendations was thorough and timely

4 Capacity building and sustainability

a Relationship of this project to other health-related activities in the area

At the national level the HKI/Philippines project team is widely recognized for providing top level advice for both policy and program issues in nutrition The only other NGO of

similar stature with respect to contributing to development of national nutrition policy is the Nutrition Center of the Philippines under the leadership of Dr Florentino Solon

At the provincial level the project was strategically positioned as a 'resource' for technical and training support for the PNCs and MNCs with only minimal financial support Thus, the project was integral to increasing the capacity of nutrition services in the communities to provide mainstream nutrition services at the community level

The inputs were highly valued by the LGU staff and in high demand Through the strategic positioning of the project, ownership and management of the strengthening processes for both management and service delivery remained with the local committees (PNCs, MNCs), which was highly appropriate in terms of sustainability

This important strategy was made operational by establishing that a two-way communication (between project and LGU personnel) was necessary for full participation in the project This communication was the basis of individual support offered by project staff to LGU personnel in dealing with difficulties encountered in reorganization, planning and advocacy issues Provinces or municipalities that were unable or unwilling to assume some initiative in this communication, or take responsibility for action were not 'coerced' into action

This strategy resulted in ownership of the project activities remaining with the PNCs and MNCs, which was, again, appropriate for an intervention placing higher priority on long-term impact rather short-term gains It also resulted in support being concentrated in the six provinces where the partnership was most 'productive'

The project supported, and had the support of, the health and nutrition infrastructure Examples of this support from the DOH include the Region VIII Health Office providing a vehicle and a driver as needed and the Region V Health Office providing an office Regional personnel also contributed significantly by participating in the training workshops, Salt Fora, advocacy and by monitoring project activities

The project worked indirectly with other PVOs or NGOs by supporting the PNCs and MNCs in their collaborations with them This model of operation is in accordance with HKI principles of operation in all of its projects Close collaboration was maintained with UNICEF in the four provinces in which complementary technical and financial assistance of the Child Growth interventions were undertaken

N B The order of the next two sections suggested in the guidelines has been reversed because this allows a more logical presentation of the information for this project

b How the project increased the capacity of local partners

The project interventions were two-pronged strengthening local nutrition committees and providing technical support to enhance service delivery of child survival interventions

(Figure 4 1) The capacities of local partners to manage local nutrition programs were increased through training in organizational development, the use of local data for local nutritional assessments and situation analyses, coordinated planning, proposal development, local resource generation, community-based monitoring, training skills, and advocacy for nutrition Further capacity building aimed directly at improving nutrition-related health services and home-based caregiving behaviors included trainings in child growth and promotion, micronutrient supplementation for children and pregnant women, nutrition education, and the promotion of iodized salt The project interventions are briefly described below

1 Building capacity of local nutrition committees [16]

Initially this component was located in all eight provinces, but during the last 15 months of the project effort was focused in the six provinces which had responded most positively to the assistance and resources made available to them

The initial steps followed in this component of the project were --

- present orientation meetings for Governors and key provincial advisers (health, nutrition and finance officials in particular),
- identify members of a Provincial Task Force (PTF) for the CSX Project -- this is a usual practice for 'externally driven' projects in the Philippines,
- conduct formative research to better understand the view of 'nutrition' held by key stakeholders in the area,
- implement training to facilitate self-sustaining action based on a standard planning and management model with the following stages organizational development, assessment, planning, advocacy, training, and monitoring

The project built the capacity of the LGUs to adopt the planning and management model in a series of workshops and training programs that are summarized below

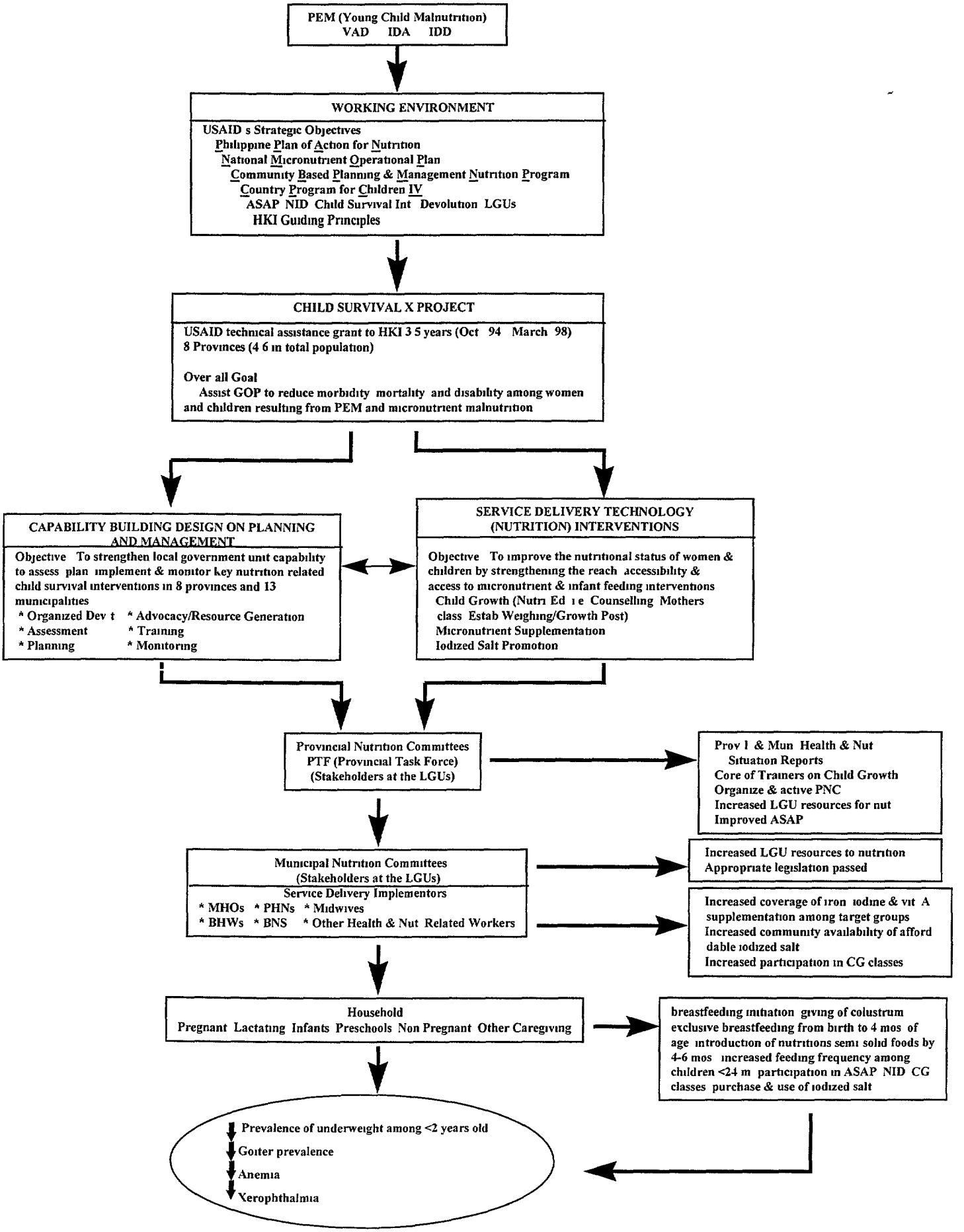
Organizational development

Major findings of the assessment showed that there was confusion among members on the composition of nutrition committee Members were unclear about the vision and mission of the PNC and MNC and also about the roles and responsibilities of various local agencies There was weak inter-agency coordination To address these gaps the following activities were conducted

Re-engineering local government unit nutrition program A series of re-engineering workshops were conducted at the provincial and municipal levels to arrive at a common understanding of nutrition committees organizational structure with well defined roles,

[16] The following section is based on a paper by FD Reario entitled, Improving accessibility, availability and coverage of key child survival project interventions presented at the CSX Feedback Conference, March 12-13, 1998, Ormoc City, Philippines

Figure 4.1 CSX PROJECT OVERVIEW



agencies and staff concerned, revisit the committee's vision and mission and to clarify task force identity in relation to PNCs and MNCs

Cross-visits These visits were a strategy used by the project to encourage sharing of child survival 'success stories' across provinces/municipalities These visits allowed provinces and municipalities to show their interventions and discussed lessons learned and factors contributing to success

Assessment

The assessment of nutrition program management of LGUs indicated that there was a need to improve the nutrition assessment process The following activities were conducted

Training needs assessment workshop This training was conducted to identify the training needs of the provincial training team and to train them on how to conduct training needs analysis and develop a training design During the training the PTFs developed a tool to assess the training capability and needs of the RHMs/BHWs

Workshop on the assessment of the provincial/municipal health and nutrition situation This workshop provided an opportunity for the PTFs to review the health and nutrition situation of their locality and established baseline data on infant feeding practices, growth monitoring, protein energy malnutrition and micronutrient malnutrition A Health and Nutrition Situation Report was developed in the eight provinces and 13 selected municipalities using the Nutrition Causal Model

Yearly program reviews Reviews were conducted among Nutrition Committee members to assess project progress and to prepare a coordinated provincial/municipal nutrition action plan

Planning

An absence of a coordinated nutrition development plan, non-involvement of other member agencies, and lack of prioritization to determine appropriate nutrition interventions were a common scenario among nutrition committees at both provincial and municipal levels The CSX project attempted to change this scenario through a series of Intervention Planning Workshops The PTFs went through the process of analyzing the health and nutrition situation of their locality utilizing existing data Prioritization and consensus decision making as to which micronutrient problems would be the focus of interventions was encouraged Modules on goal and objective setting, competing for resources, and cost-sharing were used Identification of agency accountabilities was also introduced Communications plans were also developed to identify a communications strategy to support the nutrition education interventions of the child survival interventions

Training

The trainings listed below were conducted to upgrade the competencies of the training teams in facilitating child survival interventions All trainings used the experiential learning approach and emphasized the importance of including team building activities to strengthen team work among training teams

Training of Trainers This training was conducted to strengthen the capabilities of training teams (PTF members) to train RHMs and BHWs in the conduct of mothers classes and in counselling of mothers using the Child Growth Basic Learning Package (CG-BLP) Specific skills emphasized included active listening, use of visual aids, use of voice, non-verbal communication and giving of clear instructions

Re-training of RHMs/BHWs on the use of basic learning package This was conducted to reinforce the initial training Participants were encouraged to share their experiences and problems in conducting mother's classes and home counselling sessions, and identify the weaknesses and strengths of the methodologies used for the CG package Solutions to overcome the difficulties encountered were identified

Advocacy and resource generation

A recurrent training need expressed by members of the PTFs and MNCs was the need to enhance their advocacy and resource generation skills To respond to these needs the project organized the following activities

Advocacy skills training These trainings were conducted to upgrade the competencies of the nutrition committee members in advocating for nutrition-related child survival interventions among local chief executives The ultimate aim of the training was to equip trainers with skills to promote political will and local investment for nutrition services among local chief executives One-day advocacy fora to which mayors were invited were organized as part of these workshops These fora provide a good example of the 'hands on' approach to training which characterized the training in this project

Proposal development workshop This was conducted to enhance the skills of selected committee members in developing project proposals The project hired a consultant from the Philippines Business for Social Progress (PBSP) A total of 17 proposals were developed during the workshop

The project also assisted the provinces and municipalities in developing the Health and Nutrition Situation Report which the committees used to advocate for nutrition support from local government officials and for increased local resources for nutrition from local budgets

Another activity conducted to help the committees augment their local resources for nutrition was linking them with other programs or funding sources such as CPC IV, Social Reform Agenda, and the USAID Local Government Performance Program (LPP)

Monitoring
This component of program management had been given scant attention by almost all partners because they were unclear about what to monitor In collaboration with the PTFs, the CSX project designed a monitoring scheme that would allow the PTFs to do spot checking, prompt public health nurses to monitor the activities of *barangay* health workers, and enable *barangay* health workers to survey households, analyze the data, and report the findings to the *barangay* officials for appropriate action The following workshops were conducted Orientation and Monitoring Training Among PHNs, Workshop on Community-Based Monitoring, and, School-Based Salt Monitoring using lot quality assurance sampling (LQAS)

ii Technical assistance for child survival interventions[17]

These interventions were implemented in eight to ten priority municipalities in each of the eight project provinces

Child growth A major outcome objective of the CSX project was to reduce the prevalence of underweight children less than two years of age Instead of focusing on traditional supplementary feeding interventions which target already malnourished children, the CSX project sought to prevent undernutrition by focusing on a set of caregiving behaviors associated with the growth and survival of young children These included breastfeeding and complementary feeding behaviors, among others To address these behaviors, the CSX intervention designed, developed and trained LGU health workers to implement a series of community-based interventions called the Child Growth interventions These interventions were based on a qualitative assessment of existing breastfeeding and infant feeding practices and beliefs as well as a review of the existing data on the determinants of poor child growth in the Philippines HKI/Philippines, in collaboration with the DOH and UNICEF, developed an educational package called the 'Child Growth Basic Learning Package' consisting of a reference guide, training activities, counselling cards, and serialized comics The major focus of this package was to promote the establishment of community-based 'growth posts' for monitoring children's growth and proactively promoting healthy child care behaviors through group and individualized nutrition counselling sessions and the distribution of comics

The project trained physicians, nurses, midwives and village health workers from all project areas in the Child Growth interventions The number of training programs undertaken and the numbers of health workers trained are shown in Table 4 1 and Table 4 2 Midwives were trained in interactive facilitation skills and participatory methods using the Child Growth Training Activities guide, and tasked to organize Child Growth classes among pregnant women and mothers with infants BHWs and BNSs were trained

[17] The following section is based on a paper by C Sandrino entitled, " Strengthening local government units capability in managing community-based health and nutrition programs' presented at the the CSX Feedback Conference, March 12-13, 1998, Ormoc City, Philippines

Table 4 1 Number of municipal and barangay health workers trained in the Child Growth Basic Learning Package as of December, 1997, by province

Province	No of municipalities Covered	No of Municipal Health Workers (MNAO/PHN/RHM/ SWO/AT)	No of Barangay Health Workers (BHW/BNS/DCW)
Albay	8	68	73
Masbate	10	70	76
Northern Leyte	10	71	49
Southern Leyte	9	76	97
Biliran	8	49	70
Western Samar	10	88	100
Eastern Samar	10	65	124
Northern Samar	12	25	76
TOTAL	77	**512**	**665**

Table 4 2 Coverage of Child Growth intervention as of December 1997, by province

Province	No of CG Class completed	No of Mothers completed the Class	On-going CG class	HC session conducted	No of mothers counselled	No of Growth Post	No of Operating Growth Post	No of WS at the Growth Post
Albay	38	1,106	5	27	278	26	26	35
Masbate	28	404	73	687	687	35	35	35
Northern Leyte	70	1,238	129	129	129	135	99	99
Southern Leyte	103	2,331	9	1,618	708	59	59	59
Biliran	89	1 456	15	717	412	27	25	28
Western Samar	15	349	13	616	616	35	30	31
Eastern Samar	24	151	-- *	288	288	28	28	-- *
Northern Samar	-- *	-- *	-- *	-- *	-- *	-- *	-- *	-- *
TOTAL	**367**	**7,035**	**244**	**4,082**	**3,118**	**345**	**302**	**287**

* Data not available

to conduct home follow-up of the same groups using interactive counselling cards to assess, advise and support caretakers in the adoption of key Child Growth behaviors Physicians and nurses were trained to monitor the Child Growth interventions

The CSX project in coordination with UNICEF provided selected areas with weighing scales, sets of Child Growth materials, and 'start up' kits for Child Growth classes This was the extent of 'financial assistance' given by HKI during the project

The primary behaviors promoted by the Child Growth interventions included first trimester prenatal consultation, taking iron supplements on a daily basis for four months during pregnancy, post-partum VAC distribution, immediate breastfeeding after child birth, giving of colostrum, exclusive breastfeeding from birth to at least four to six months of age, the feeding of frequent, small, calorie- and nutrient-dense meals to infants from the age of six months along with continued breastfeeding, the provision of an extra meal each day to children recovering from illness, continued breastfeeding beyond one year of age, bringing children to the LGU *purok* (neighborhood) centers for a vitamin A supplement during National Immunization Day (NID) in April and *Araw ng Sangkap Pinoy* or ASAP (National Micronutrient Day) in October, the routine (ie monthly for children <1year and quarterly for children ages 1-2 years) monitoring of children's growth, and, the frequent feeding of vitamin A-rich foods

The project also helped LGUs to develop monitoring tools and methods to assess progress and problems in program implementation at the municipal and *barangay* levels Also, advocacy and planning sessions among LGU executives and leaders were implemented to increase LGU support for BHWs, the CG classes, and the establishment of village-based growth posts

Micronutrient supplementation A major outcome objective of the CSX project was the reduction of micronutrient deficiencies through the provision of micronutrient supplements to appropriate target groups and the promotion of household consumption of iodized salt During the CSX project, the DOH program consisted of (1) vitamin A distribution to all children 1-4 years of age through its NID and ASAP, (2) limited iron supplementation to women during prenatal consultation and ASAP (20 iron tablets),and (3) the provision of iodized oil capsules to reproductive-age women during ASAP in selected provinces endemic for iodine deficiency

The CSX project undertook activities to support the DOH micronutrient supplementation strategy directly with the aim of increasing supplementation coverage among the DOH-specified target groups Since 1993, national government support to LGUs for ASAP promotion and health worker micronutrient training has dwindled The CSX project implemented the following micronutrient activities

- Developed, produced and distributed communication materials, such as Mayors' guide, health worker guides, and information sheets, designed to promote ASAP,

- Designed and organized technical updates on micronutrients and ASAP for all provincial technical staff, rural health physicians (RHPs) and public health nurses (PHNs) in the eight project provinces,
- Designed and conducted VAD (vitamin A deficiency), IDA (iron deficiency anemia) and IDD (iodine deficiency disorders) trainings among health workers from a total of 12 municipalities in two provinces (Biliran and Samar),
- Organized and implemented advocacy and planning sessions to encourage LGU procurement of iron tablets to augment the national supply,
- Provided 300,000 donated vitamin A capsules to the DOH with a special request that these be prioritized for the CSX provinces experiencing supply shortages during the 1997 NID,
- Incorporated iron and vitamin A nutrition education modules in the Child Growth materials and training sessions and implemented the Child Growth trainings in all CSX provinces,
- Supported the design and implementation of provincial post-ASAP coverage surveys in two project provinces (Albay and Samar) to assess micronutrient supplementation coverage and factors associated with receipt of the supplements

Promotion of iodized salt The universal household consumption of iodized salt is a major goal of the Philippines Food and Nutrition Program Actual consumption levels in the project areas at baseline were less than 2% The CSX project catalyzed and conducted a series of Salt Fora -- stakeholders meetings among Local Chief Executives, market vendors, and others to promote the need for iodized salt and to determine ways to increase its availability in the project areas Since iodized salt is not produced in the project areas, HKI/Philippines brought in credible suppliers from a nearby province (Cebu) during the stakeholders' meetings to establish linkages with local individuals interested in marketing iodized salt HKI/Philippines also organized salt monitoring exercises in selected schools using lot quality assurance sampling (LQAS) as a means of both increasing awareness of the need for iodized salt consumption and monitoring the proportion of households using iodized salt

c Expectations for project activities after the end of funding in this cycle

Sustainability of project activities will be considered separately for national and local levels

National level

The input into policy and program development was difficult to evaluate since the process was often informal However, it is likely that the impact has been extensive and that this impact may also be enduring But policy development is a dynamic activity and policies important to the implementation of child survival activities may change It is a recommendation of this report that a source of core funding be identified for the HKI/Philippines team to enable their important policy input to continue

Provincial level

The partner organizations of this project, the LGUs in eight provinces, will not be affected in terms of financial viability by the withdrawal of CSX funding Only minimal financial resources were provided by the project and hence withdrawal of CSX will not affect funding directly However, some indirect loss of funding, or at least 'leverage' in influencing budget decisions will be lost One PNC reported that their association with an international organization (HKI) brought them 'bargaining power' when dealing with the Provincial Finance Office The skills in advocacy, proposal writing, and working within the budgeting cycle which were enhanced through participation in the project will be important assets that will not be lost

There was no need for a major phase-over process in this project because the major thrust from the outset was to develop the capacity of local organizations to assume the responsibility for project activities HKI/Philippines deliberately limited the number of its technical staff in the field This strategy made it necessary for the PTFs to quickly become self-sufficient and to adopt the role of the Area Coordinators themselves In this way the relatively small number of staff in the field is likely to have contributed to sustainability

However, at the time of the FE, LGU personnel expressed some uncertainty as to how they might replace the technical support HKI had provided Some responses to the FET's questionnaire completed by PNCs and by MNCs in particular indicated unease about the future of project activities without HKI support To address this concern, project personnel suggested a network of LGU project participants be established An activity raising awareness of the increased skills within those present at the Feedback Conference seemed to offer some reassurance Further, representatives from the national government challenged the LGU personnel to be self-sufficient and saw this independence as a logical step in the development of health services in the country With a viable local network, the participants themselves will be able to replace the support role previously played by HKI

The FET discussed with project partners options for who might be able to adopt the role of the area coordinators On paper it would seem that the Regional Nutritionist would be best placed to do this However, the idea was thought to be not viable by several project participants, including a Regional Nutritionist, because a) Regional positions no longer held any authority over LGU personnel and b) the position already had too many responsibilities and that adding another would be unrealistic

The members of PNCs and MNCs in all eight provinces anticipated that the impact of enhanced skills in advocacy, assessment, and planning will have sustainable positive impacts on nutrition activities Further, these impacts are likely to spread beyond nutrition because many of the members of the nutrition committees who received training through the project are from other sectors (eg social work, agriculture, interior and local government) and are members of many other committees

Project activities will be sustained and expanded to varying extents in different provinces In two provinces (Samar and Southern Leyte) the PNCs have already initiated expansion activities and will likely remain active These PNCs are already viable at a considerably enhanced level of functioning relative to baseline and will continue project activities The best indicators of this viability were that the PNCs meet regularly and had obtained increased budget allocations for nutrition activities They also had the involvement, or at least the public support, of the LCEs in their provinces

In four provinces (Biliran, Masbate, Leyte, and Albay) the PNCs are likely to remain active at least in the medium-term, whereas in the remaining two, Northern Samar and Eastern Samar, constraints have not yet been overcome sufficiently to allow optimism that they will remain viable Plans to reorganise PNCs in these latter two Provinces were made at the Feedback Conference and this is likely to be a necessary first step to progress

A major factor effecting sustainability of the PNCs and MNCs, and hence project activities, is the enthusiasm and commitment of the Provincial Nutrition Action Officers (PNAOs) and Municipal Nutrition Action Officers (MNAOs) These people are political appointees and to some extent the enthusiasm they show may reflect the enthusiasm or priorities of their political 'masters' This is not always the case, however, as the following remark at the Feedback Conference demonstrates The Governor of Masbate was reportedly embarrassed and ashamed on being informed that his province ranked very poorly among the provinces in terms of malnutrition rates He apparently asked publicly why children in his province were so thin when the PNAO was so fat! The PNAO was promptly replaced as the first step in the re-engineering process in the province

The sustainability of the impact of training health workers in the CG package will be more certain than the efforts to strengthen committees because these personnel are usually 'almost permanent' in their tenure There is a clear expectation that RHMs will reside in the rural health center or *barangay* to which they have been posted and they do not expect to move For example, two RHMs in one municipality we visited had worked for 20 and 16 years respectively in their posts They explained this tenure in terms of an unwritten policy of 'reside or resign' Each had been posted to their villages directly after completing training and had never moved They reported this as common among their colleagues Enhancing the training skills of such health workers and offering them access to improved technologies, is indeed likely to have sustainable impact

d Community participation in the project design, implementation, and evaluation

Communities have participated fully in the design and implementation of this project The project engaged selected communities in the project design by eliciting their inputs through focus group discussions prior to the design of the Child Growth messages and by pre-testing materials with selected community members and health workers

Representatives of the communities on PNCs and MNCs were trained to assess needs and use data in planning interventions Community members worked together to provide materials and labor to build growth posts In the municipalities embracing this technology with most vigor (Villaba, Leyte), the successful building of 90 Growth Posts was explained to the FET on several occasions as an example of '*bayanihan*' -- the community pulling together to achieve a common goal Community members provided the materials for construction and the labor to build these growth posts

As politicians are representatives of their communities, their involvement was symbolic of community support Examples of this involvement included

- mayors in many municipalities participated in the graduation ceremonies for participants from the Child Growth classes,
- the Governor of Southern Leyte regularly attended training programs,
- the Governor of Leyte presented the Opening Address at the CSX Feedback Conference

Involvement of LCEs in project activities is interpreted as strong evidence of political support, and with devolution this may mean sustainable financial support for the project objectives

The interventions were carried out in the communities and it appears that the communities valued them highly Evidence of this includes

- the contribution of resources from the communities including the honorarium for BHWs and BNSs for their regular work and for attending project trainings and the provision of snacks for mother's classes,
- achievement of high coverage rates for vitamin A supplementation,
- purchase of iodized salt from the BHWs,
- innovative strategies by MNCs to encourage BHWs to achieve goals,
- the construction of growth posts

The HKI/Philippines field staff were familiar to and received warmly by the communities visited during the FE The field staff did not directly train BHWs or BNSs in providing the CS services, but rather trained the trainers of them They also observed the training of BHWs and assisted in establishing the systems for monitoring interventions The linkage of the project to the communities was through PNCs and MNCs and the training of health staff This strategy enhanced intermediate and long-term impact of the activities rather than the short-term gains

Eight *barangays* were visited by the FET and several RHMs and BHWs were interviewed during these visits The health workers explained the CBM and its uses to the FET They also described how they used the CG-BLP counselling cards with mothers The FET also met the members of one of the mother's class

e Cost-recovery activities

A principle of participation in the project was cost sharing among partners For training programs the project would usually provide participants with accommodation and food, but it did not pay travel expenses or per diem which were borne by LGUs The LGUs also paid honorarium for the services of BHWs and BNSs, a critical resource for the Child Growth interventions

The project did not provide financial assistance for promoting the iodized salt, only technical assistance The iodized salt intervention was market-based Hence, specific cost-recovery activities were not appropriate At the Feedback Conference a businesswoman described the distribution structure, operating costs and pricing policies she had used in establishing a wholesale operation for iodized salt in three provinces In most of the strengthened municipalities, seed money was provided by the MNC through the Mayor's Office for the purchase of an initial supply of iodized salt to be sold by BHWs, the proceeds of which would be used to replenish the supply of iodized salt

f Highlights of capacity building and sustainability

A summary of activities designed to build capacity and sustainability are presented in Table 4 3

Evaluation at the national level could be done only informally as no specific objectives were specified against which to assess achievement However, the FET had no difficulty in this informal evaluation because the value of the input of HKI/Philippines team at the national level was clear The input was evidenced by

- HKI's membership and active participation in the National Micronutrient Action Team, the National Vitamin A Experts Group, the Technical Steering Committee of ASAP, as well as numerous ad hoc invitations to offer technical advice to the National Nutrition Council and the DOH's Nutrition Service,
- the nationwide use of the ASAP communications materials (comics, volunteers' guides, Mayor's guides) designed and produced by HKI in collaboration with the DOH Nutrition Service,
- the invitation to HKI to present its provincial post-ASAP survey results at a National ASAP planning meeting,
- the nationwide use of HKI's advocacy materials (transparency and talking points guide, micronutrient fact sheets, and others) during technical updates, national symposia and other events

Table 4 3 Capacity building and sustainability of the HKI Child Survival X Philippines Project

Goal	Objectives (after MTE)	Steps taken to date	Outcomes
A National To assist GOP in reducing morbidity, mortality and disability among women and children resulting from PEM and micronutrient malnutrition	No objectives for national level interventions were specified	i) attended meetings of NMAT, National Vitamin A Experts Group ii) responded to 'official' as well as 'informal' ad hoc requests for advice iii) built a highly competent team iv) promoted awareness of HKI team capacity to undertake technical tasks	i) advice to GOP, USAID Mission, other PVOs and NGOs on policy and program issues related to PEM and micronutrient malnutrition ii) established HKI team as a key stakeholder and resource for nutrition in the Philippines iii) produced, in collaboration with UNICEF, CG-BLP iv) provided training in use of CG-BLP on behalf of UNICEF and DOH v) developed technical updates to support ASAP vi) developed advocacy resource called 'What is Nutrition', which was disseminated nationally
B Provincial/-municipal Strengthen local government capacity to plan, manage and implement micronutrient, breastfeeding and weaning interventions	1 Increase the number of local nutrition task forces/committees that are formed, funded and operational	i) undertook formative research to develop an understanding of how LGU stakeholders thought of nutrition	i) 8 Provincial Nutrition Committees reactivated, funded and operational ii) 13 MNCs reactivated, funded and operational iii) 8 further MNCs reactivated in one province by initiative of PNC iv) changes of PNAO/MNAO made where appropriate

		ii) conceived, developed, implemented and refined 12 workshops for orientation & re-engineering of PNCs and MNCs iii) offered informal support to members of PTFs and MNCs to back-up learning experiences from the workshops iv) collaborated closely with all stakeholders at all levels of bureaucracy	v) passage of LGU resolutions related to a availability of iodized salt b increase in allowance for BHWs c integration of nutrition action plan into local development plan vi) Project was supported in concrete terms by bureaucracy—offices, vehicle and driver provided by GOP Regional level vii) 3 cross-visits conducted for PNCs and MNCs
	2 Increase allocation for nutrition interventions in LGU budgets	i) conceived, developed & implemented 12 workshops for advocacy (hands on), and proposal writing	i) funding for nutrition interventions increased substantially in 2 provinces (Samar and So Leyte) ii) LGUs provision of snacks for mother's classes important symbolically
	3 Increase the number of annual provincial and municipal nutrition assessments completed	i) conceived, developed & implemented training for Community-Based Monitoring in 3 municipalities	i) Nutrition and Health Situation Reports produced by 8 PNCs ii) Nutrition Situation Reports produced by 13 MNCs

		ii) support for Albay-Samar Post-ASAP survey iii) incorporated use of existing data collections (eg OPT) in advocacy and planning workshops iv) 4 workshops for LQAS attended by representatives from 50 municipalities	iii) CBM systems established in 3 municipalities iv) made effective use of nationally collected OPT data in local advocacy and planning v) LQAS successfully established in schools
	4 Increase the number of action plans that are formulated, implemented and monitored	i) 23 planning workshops held	i) Action plans developed for 8 provinces and 13 municipalities i) developed 4 provincial communication plans
C Strengthen community-based interventions to improve child growth, infant feeding, and micronutrient nutrition in two nutritionally disadvantaged regions	1 Improve anthropometric status in children < 24 m	i) produced CG-BLP in collaboration with UNICEF ii) trained 67 members of the PNCs as trainers for CG-BLP iii) 34 training workshops conducted by those trained in ii) above	i) 512 PHNs & RHMs trained as instructors for mother's classes ii) 665 BHWs, BNSs & DCWs trained to provide home counselling visits iii) 6 re-training workshops held for i) and ii) above iv) 7,035 mothers attended mother's classes v) 3,118 mothers counseled at home

	2 Improve Vitamin A status in children < 72 months old	i) CG-BLP and training as above ii) 8 micronutrient teachnical update workshops	i) Coverage of VAC maintained ii) Consumption of vitamin A-rich foods increased
	3 Improve iodine status of entire population	i) CG-BLP and training as above ii) 8 micronutrient teachnical update workshops iii) conducted Salt Fora in 7 of the 8 provinces iv) LQAS established in schools	i) Availability of iodized salt increased dramatically in project provinces in which the Salt Fora were held ii) Municipalities provided seed money to schools and health centers to purchase iodized salt iii) Rural health centers and barangay growth posts selling iodized salt
	4 Improve iron status of women of child-bearing age	i) CG-BLP training as above ii) 8 micronutrient teachnical update workshops iii) conducted qualitative study of compliance to iron supplements in So Leyte	Developed a better understanding of factors constraining compliance Improvements in pregnant women taking supplements

5 Presentation and discussion of final survey findings

a Findings of the final survey[18]

The endline survey was carried out between September and November 1997, two years after the baseline survey The sampling and data collection methods were the same in each survey, except for the addition to the endline survey of questionnaire items concerning the process of project implementation The sample was drawn to be representative of three areas (1) provinces where both the CSX Project and the CG Project were implemented (Albay, Masbate, Leyte, Eastern Samar), (2) provinces where only the CSX Project was implemented (Biliran, Southern Leyte, Samar), and (3) the province of Northern Samar where the CSX Project and USAID-funded VITEX Project were implemented The results were disaggregated by these three areas The implementation of all components of the survey was impressive and timely Details of the survey, together with the questionnaire, are presented in Appendix IV

b Discussion of survey results

Nine of thirteen behavioral objectives addressed by the project were achieved and for seven of these, the objective was surpassed by more than 50% (Table 5 1) Three others were partially achieved The objective that was not achieved (No 5) was unrealistic in that it sought an increase of 10% in a proportion that was 91% at baseline The achievement of each objective is described in detail below Overall, the project had remarkable success in meeting its behavioral objectives

However, over the period of the project there were improvements in socioeconomic status In addition to the impact of the project activities, improvements in socioeconomic status are likely to have had a positive impact on the endline survey findings Without a control group it is difficult to determine with certainty the effect the project activities alone had on the indicators Comparisons were made with data available from national and other surveys carried out as a part of the project to better understand the results Further, three statistical techniques were used to analyze the data

- odds ratios were estimated from multivariate regression analyses to adjust for confounding resulting from changes between the baseline and endline samples in variables such as socioeconomic status and level of education,
- stratification was used to make crude comparisons (ie without statistical adjustment) between municipalities with and without the 'capacity strengthening intervention',
- logistic regression models were developed after identifying an internal control group as the best means of estimating the impact of the project on the behavioral indicators independent of other factors

[18] The following section is based on a paper by RDW Klemm, Tuason-Lopez C, Villate E Burger S *et al* entitled, "Improving the nutritional status of women and children by strengthening the reach, accessibility and access to key micronutrient and child growth interventions a preliminary report " presented at the CSX Feedback Conference, March 12-13 1998, Ormoc City, Philippines

Table 5 1 Indicator values from baseline and endline survey compared with project objectives

No	Baseline	Objective	Endline	Achievement of objective
1	30 0%	Reduce by 10% prevalence of weight-for-age < 2 Z NCHS standard in children, 24 m	25 4%	Objective surpassed, P < 001, but SES also increased
2	56 7%	Increase by 10% the proportion of infants (6-11 m) who consumed only breastmilk until they were 4 months old	63 1%	Objective achieved, but data related to breast feeding have some inconsistency
3	50 1%	Increase by 10% the proportion of infants (6-11 m) who consumed a solid or semi-solid food when they were six months old	53 6%	Objective partially achieved, 7% increase
4	2 9%	Increase to 10%, the proportion of infants (6-11 m) who consumed all 3 components of the 'weaning mix' in the last 24 h	6 7%	Objective partially achieved, increase to 7%
5	90 9%	Increase by 10% the proportion of children (12-23 m) who were still breast fed	91 6%	Objective not achieved, but baseline value of 91% made this an unrealistic objective
6	88 9% (received VAC in previous 12 mos)	Maintain on-time (received VAC in previous 6 mos) vitamin A capsule coverage at 50% of pre-school children (12-59 m) who live in communities where food frequency scores indicate continued risk of VAD	91 6% (received VAC in previous 12 mos)	Objective not measured -- coverage was high and increased significantly in project areas while nationally it decreased
7	Mean animal score 4 3 Mean combined score 5 6	Increase consumption of vitamin A-rich foods among children 12-59 m until at least 67% of communities have average HKI food frequency scores (animal and combined) that are above the HKI cutoff values for risk of vitamin A deficiency	Mean animal score 5 1 Mean combined score 6 6	Objective partially achieved -- achieved for animal score but not combined score

8	29 7%	Reduce by 10% the total goiter rate among married women	22 1%	Objective surpassed -- all the reduction was in visible goiter
9	37 8%	Increase by 10% the on-time (within the last 12 months) iodized oil capsule coverage rates among women of child-bearing age (15-40 years old)	45 4%	Objective surpassed -- 20% increase, coverage varied dramatically with supply
10	1 4%	Increase to 10% the proportion of households that use iodized salt where it is available	15 4%	Objective surpassed -- province-specific results show objective was met only in provinces where Salt Fora were conducted
11	75 0%	Reduce by 10% the prevalence of low hemoglobin concentration (<11 g/dL) among pregnant women	62 9%	Objective surpassed
12	47 6%	Increase the proportion of pregnant mothers who begin to take iron supplements by the fifth month of pregnancy	61 6%	Objective achieved
13	14%	Increase by 20% the proportion of pregnant women who *continue* to take iron supplements on a daily basis for at least two months during the latter two trimesters of pregnancy	21 7%	Objective surpassed-analysis specified period as '4 months during previous pregnancy' which is considered to be equivalent to 'latter two trimesters' which was not available

The changes in economic-related variables are described in Table 5 2 Both the pre- and post-intervention surveys included a total of about 3000 households with about 1000 coming from each of the three study areas Most households had only one income earner Across the three study areas, about 60% of the household heads had no more than an elementary education The post-intervention educational status of household heads in Area 1 was significantly improved compared with their pre-intervention status, although there were no significant differences in the other two areas The majority of household heads in each area were farmers or fishermen This is typical for rural and non-industrialized regions in the Philippines The distribution of usual occupations among household heads did not differ significantly for any of the areas between pre- and post-intervention surveys

The households were generally comparable across the study areas with respect to the type of housing material, and the presence of electricity, radio and TV There were significant improvements between the pre- and post-intervention surveys across all study areas with respect to type of housing, proportion of households with electricity, and the proportion of households with a television Overall, 41 2% of households surveyed during the post-intervention survey had houses made primarily of thatched palm, suggesting that the areas are still quite poor despite significant improvements in housing types relative to the pre-intervention survey The study found an overall 10% increase in the proportion of households with electricity, from 32 3% at baseline to 42 7% at endline The increase was highly significant in all three areas The proportion of pit toilets increased significantly across all three areas from baseline to endline Television ownership increased significantly in all project areas, increasing from 9 8% to 15 8% However, radio ownership, overall, declined slightly from 67 0% to 64 5%

A total of 5100 preschool children were included in both the pre- and post-intervention surveys The average age was similar across areas, ranging from a low of 28 1±17 5 months to a high of 29 1±17 1 months, and did not differ significantly from pre- to post-intervention surveys in any of the areas The age distribution of children was also similar across project areas and across survey periods Children from each one-year age group and gender were roughly equally represented in the samples for both surveys More than 3300 women between the ages of 15 to 40 years were surveyed in both the pre and post-intervention surveys The average age of women across the three project areas was comparable and ranged from 24 03±6 9 years to 27 4±6 7 years There was a significant improvement in the educational status of women compared with the pre-intervention results On average, women from all three areas had attained higher levels of education compared with men (ie household heads) from the same areas at both pre- and post-intervention surveys

Table 5 2 Socio-demographic profile of surveyed households at baseline and endline, by project area

	AREA 1		AREA 2		AREA 3		TOTAL	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Base line	End line
Households	n=1026	n=1019	n=1038	n=1044	n=1054	n=1029	n= 3118	n= 3092
Mean household size (mean ± sd)	6 3 ± 2 3	6 2±2 0 *	6 1 ± 2 2	5 9 ± 2 1	5 9 ± 2 0	6 2±2 1 *	6 1 ± 2 2	6 1 ± 2 1
% Households with income earners								
one	62 3	65 2	74 9	71 6*	67 1	69 1	68 1	69 6
more than one	37 1	34 0	24 7	27 3	32 0	29 5	31 3	30 2
% of household heads who completed								
Elementary or less	61 8	54 2**	62 2	59 7	66 2	62 2	63 4	58 7 ***
Any high school	26 3	31 1	28 2	30 3	22 5	25 5	25 6	28 9 8
Post high school	11 9	14 6	9 6	9 9	11 3	12 3	10 9	12 3
% of household heads by their usual occupation								
farming/ fishing	59 9	55 3***	52 7	46 7*	65 8	57 0 ***	59 5	52 9 ***
service related	24 7	32 2	34 9	38 0	20 5	31 0	26 7	33 8
own business	6 1	4 9	5 0	8 4	6 1	4 7	5 7	6 0
other	4 5	5 8	3 2	2 8	2 6	4 2	3 4	4 2
none	4 8	1 8	4 2	4 1	5 0	3 1	4 7	3 0
% households by type of house								
concrete/ semi-concrete	18 4	21 9***	20 0	24 5*	11 2	14 5 ***	16 5	20 3 ***
wood	37 1	44 2	28 8	28 3	37 1	43 3	34 3	38 5
"*nipa*"/ "*sawali*"	44 5	33 8	51 2	47 2	51 7	42 3	49 2	41 2
% of households with electricity	38 3	52 2***	29 8	39 8 ***	28 9	36 2 ***	32 3	42 7 ***

% of households with								
water-sealed toilets	53 4	48 5***	55 8	52 7 ***	55 5	42 2 ***	54 9	47 8 ***
pit toilets	2 2	10 0	11 9	18 8	6 1	11 1	6 7	13 4
no toilets	44 4	41 5	32 3	28 5	38 4	46 7	38 4	38 8
% of households with radio	70 1	70 9	67 9	61 3	63 1	61 3	67 0	64 5 *
% of households with television	12 1	19 7***	11 9	17 1 ***	5 5	10 7 ***	9 8	15 8 ***

* p-value ≤ 05 ** p-value ≤ 01 *** p-value ≤ is somewhat higher than 001

Objective 1

The prevalence of underweight in children < 24 months of age fell by 15% (30% to 25%), substantially greater than the 10% reduction of the objective An odds ratio (a statistical procedure that allows adjustments to be made for multiple variables) was calculated to control for the potential confounding effect of socioeconomic status which is usually associated positively with nutritional status

The odds ratio for a child < 24 months of age being underweight at the endline survey relative to the baseline survey was 0 83 with a 95% confidence interval (CI) of 0 71 to 0 97 This means that the chances of a child being underweight were estimated to be 17% less at endline than at baseline and that 95 out of 100 times, the estimated odds ratio from any sample from that population would indicate a reduction of between 3% and 29% This statistic is adjusted for type of house and TV ownership (proxy variables for socioeconomic status) This is strong statistical evidence for achievement of the objective The odds ratio adjusts for relative differences within the samples over time However, it does not adjust for the situation of an overall increase in socioeconomic status by the whole population from which the samples were taken This is done below in the logistic regression analyses

Comparable national data for the period of interest are not readily available Data collected annually during Operation *Timbang* (OPT) are probably the best, although these are for aggregated ages 0-83 months These data were collected during the first quarter of the year (in a different season to the surveys of this project) and, at the time of writing, were available only for 1995 and 1996 However, it is noteworthy that these data do show improvements in the nutritional status of children in 12 of the country's 15 regions for which there were data This suggests that there was a secular trend for improving nutritional status of children throughout the country during the period of this project Unfortunately, no OPT data were available for Region VIII, a project region Region V, for which there was OPT data in 1995 and 1996, showed the biggest reduction in underweight of any region in the country Thus, achievement of the project objective

related to improving nutritional status of children may have been unrelated to project interventions

Data from OPT were being used in *barangays* visited during the final evaluation In one location, the data for the last four years were displayed prominently in the growth center Results showed a substantial reduction in underweight and were a source of pride for the BHW as well as *barangay* and municipal officials accompanying the FET At municipal and provincial levels data from OPT were used by nutrition committees in advocacy, planning and resource allocation

Objective 2
There was an 11% increase in the proportion of mothers who reported that their babies were 'exclusively breast fed' for the first four months of life However, there was some discrepancy when this result was compared with the proportion of these mothers who reportedly introduced 'other milk' to their infants before four months of age (Table 5 3) This may have resulted from the way in which the breast feeding history was taken, a difficult set of questions in any survey

Objective 3
The 'weaning mix' referred to in this objective is a mix consisting of rice or rice porridge with an animal food source, a condensed calorie food source (such as oil or food cooked in oil) and a vegetable Table 5 3 shows that 84% of 6-month-old children at the time of the endline survey had already started consuming semi-solid or solid food This would be expected given the other results regarding complementary feeding The age of introduction of semi-solid or solid foods among infants 6-11 months of age was not significantly different in any area or all areas over the survey periods

Objective 4
The proportion of children 6-11 months old consuming all three components of the weaning mix in the 24 hours preceding the survey more than doubled over the two years between the surveys (Table 5 3) Given the baseline value was less than 3%, this behavior change will not yet have made a significant impact on nutritional status of children in this age group

Objective 5
The objective of increasing by 10% the proportion of children 12-23 months of age who are still breastfed was not met, but given the high baseline value of 91%, this was not a realistic objective (Table 5 1)

Objective 6
While a high coverage rate (>90%) was maintained for vitamin A supplementation in the past 12 months, the questionnaire did not ask about supplementation during the past six months (on-time supplementation) (Table 5 1)

Table 5 3 Complementary feeding behaviors at baseline and endline, by project areas

Objective	Area 1		Area 2		Area 3		Total	
	Base line n=157	End line n=178	Base line n=163	End line n=176	Base line n=193	End line n=190	Base line n=513	End line n=544
Proportion of mothers with infants 6-11 months of age who gave only breast milk to their infants up to 4 months	59 8	65 2	55 8	64 2	54 9	60 0	56 7	63 1
Proportion of mothers with infants 6-11 months of age who introduced 'other milk' to their infants before 4 months	42 0	44 1	52 7	43 4	45 0	44 2	46 4	43 9
	Base line n=26	End line n=30	Base line n=27	End line n=43	Base line n=41	End line n=38	Base line n=94	End line n=111
Proportion of 6 month old children who consume semi-solid or solid food	80 8	90 0	81 5	83 7	75 6	79 0	73 7	83 8
	Base line n=157	End line n=175	Base line n=155	End line n=178	Base line n=193	End line n=192	Base line n=505	End line n=545
Proportion of children 6-11 months of age who started consuming semi-solid or solid food by age of introduction								
<6 months	51 6	62 3	53 6	53 9	46 1	45 3	50 1	53 6
at 6 months	18 5	18 3	25 2	23 0	26 9	27 1	23 8	22 9
≥7 months	29 9	19 4	21 3	27 6	26 9	27 6	26 1	23 5

	Base line n=146	End line n=170	Base line n=150	End line n=171	Base line n=191	End line n=185	Base line n=487	End line n=526
Proportion of infants 6-11 months of age who consumed all 3 components[1] of the 'weaning mix' in the past 24 hrs	2 7	11 8 **	2 7	7 0	3 1	1 6	2 9	6 7 **

[1] condensed calorie vegetable & animal food

p<0 5 ** p<0 01 ***p<0 001

Table 5 4 (below) compares the results of the national post-ASAP coverage surveys from 1993 with the CSX baseline and endline coverage estimates as well as the 1996 provincial post-ASAP survey results from Samar and Albay provinces It appears that VAC coverage increased slightly in the CSX project areas from 1995 to 1997 compared with an overall decrease in the national vitamin A coverage over the same period Based on information provided by the Nutrition Service DOH (NS/DOH), there was an adequate supply of vitamin A during the 1997 ASAP, and it was released to the provinces in time for distribution The reasons behind the lower national VAC coverage are still being investigated Preliminary reports from NS/DOH suggest that many midwives in non-project provinces did not ensure 'house-to-house' coverage during ASAP and therefore did not reach some of the target children

Table 5 4 Vitamin A supplementation coverage in project areas compared with National data[19]

		CSX Project Areas			
	National (%)	**Area 1 (%)**	**Area 2 (%)**	**Area 3 (%)**	**Total (%)**
1997	78	93 9	89 6	90 3	91 2
1996	88	Samar 88 9	Albay 92 9	na	na
1995	88	92 6	85 9	88 5	88 9
1994	93	na	na	na	na
1993	90	na	na	na	na

[19] Note that questions were not directly comparable but sufficiently so to give idea of trends

It is important to note that the CSX survey VAC coverage results and those of the National post-ASAP survey are not directly comparable First, the National post-ASAP coverage survey was conducted within two weeks of ASAP (last two weeks of October) and asked mothers of children between the ages of 1-4 years the question "Did your child receive vitamin A?" The CSX surveys were conducted during a time period which straddled ASAP (about 1/2 the villages were visited before October 13 and 1/2 after October 15), and asked the question, "Has your child received a vitamin A capsule during the past 12 months?" Despite the difference in questions between the CSX and National post-ASAP surveys, the questions asked within each of the surveys were the same in 1995 and 1997

The most likely explanation for the difference in results at the endline survey is that the interventions of the project impacted positively on coverage rates Observations made by the FET support this conclusion Techniques were developed by MNCs to encourage BHWs to increase coverage Two examples were withholding honoraria until goals of coverage were met, and the MHO simply not accepting reports from BHWs or BNSs who achieved less than total coverage BHWs and BNSs were simply sent back to errant households to 'complete the job' These examples demonstrate implementation of highly effective strategies of community level support for national campaigns that are likely to have been instrumental in maintaining the impressive rates of coverage reported That these strategies were the initiatives of the local health workers or MNCs suggests that they are more likely to be sustained than strategies that may have been 'handed down' as directives through the bureaucracy

The future of national supplementation campaigns (NID and ASAP) is currently under discussion The established National Micronutrient Day (ASAP) of April 15 was changed in 1998 to April 1 and some confusion resulted because the change of dates was announced late The Vitamin A Expert Group (a group including HKI which advises the National Government) has recommended that a National Vitamin A Day be created on April 15 to distribute vitamin A capsules Current plans are for ASAP to continue in October as the second dosing day, at least until the year 2000 These national campaigns are an effective measure to reduce the problem of vitamin A deficiency Nevertheless, because of the project interventions, the local health personnel are now better prepared to act independently to implement universal supplementation programs should the national days not be sustained for any reason and the vitamin A situation still warrants such interventions

Pre-intervention levels of night blindness were already below the WHO threshold with a prevalence estimate at 0 4% This estimate did not change significantly at post-intervention (data not shown)

Objective 7

One of the project objectives was to increase the consumption of vitamin A-rich foods so that eventually vitamin A supplementation of preschoolers might be phased out Consumption of vitamin A-rich foods was assessed using the HKI Vitamin A Food

Frequency Method and more detailed results are shown in Table 5 5 This method measures the frequency of consumption of individual vitamin A-rich foods, which were summarized as two scores—a score for animal food sources and a combined score for animal and plant food sources Mean scores of communities were then calculated These mean scores were compared to cut-off values for vitamin A deficiency (≤ 6 for combined score, ≤ 4 for the animal score) which were previously determined to be associated with low serum retinol levels ($\geq$15% of children had <20 µg/dl) in a multi-country validation study Both scores must be above the cut-off values in order to declare a *barangay* to be not at risk of vitamin A deficiency The CSX project objective was to increase the plant and animal scores so that at least 67% of *barangays* had both animal and combined scores above the cut-off values for risk of vitamin A deficiency

At baseline, although the mean animal scores for each area were above the cut-off value for vitamin A deficiency, only 49% of *barangays* had mean animal scores above the cut-off values Mean combined scores were below the cut-off value and only 36% of barangays had scores above the cut-off values At endline, both the mean animal and mean combined scores in all areas had increased significantly and were above the cut-off values Seventy percent and 60% of *barangays* had mean animal and combined scores, respectively, above the cut-off values Thus the project objective was achieved for animal foods but not for vegetable foods

These results are consistent with increase in frequency of consumption of vitamin A-rich foods, and more detail of these changes is presented for plant food sources in Tables 5 6 and for animal food sources in Table 5 7 While the differences are not great, they are consistent across many foods, with the main change being from not consuming a vitamin A-rich food, to consuming that food 1 to 3 times per week These changes in dietary behavior are likely to lead to important changes in vitamin A status of the children As with the reduction in underweight, these dietary improvements can not be attributed solely to project interventions -- the improvements in socioeconomic status described above are likely to have contributed

Objective 8

The total goiter rate decreased by 25% (29 7% to 22 1%), more than twice the objective Table 5 8 shows that this decrease is entirely the result of the fall in visible goiter which decreased from 14 7% to 2 4% The likelihood that this dramatic reduction resulted from the techniques used in the survey or observer error, rather than an actual reduction in visible goiter rates was considered and advice was sought from an iodine expert (Dr Frederico Cruz, Chairman, Philippine Thyroid Association and National Iodine Experts Group) In Dr Cruz's opinion, the fact that different examiners were used in the baseline and endline surveys might explain some of the observed change However, he believed that the observed reduction in visible goiter rate could have been real He considered that visible goiters could become smaller over the two-year period between the surveys and that this would be consistent with the increase in prevalence of palpable goiters observed (15% to 20%) Dr Cruz believes that the high proportion of women

Table 5 5 Vitamin A Food Frequency Scores and proportion of barangays in which mean food scores are above cutoff values for risk of VAD at baseline and endline by project area

Vitamin A Risk at the Community Level	AREA 1		AREA 2		AREA 3		TOTAL	
	Base line n=30	End line n=30	Base line n=30	End line n=30	Base line n=30	End line n=30	Base line n=90	Endline n= 90
Mean food scores for vitamin A using HKI Food Freq Method (Mean ± SD)								
Animal Food Score[1]	4 3± 2 0	5 3± 2 2	4 4 ± 2 2	5 1 ± 2 2	4 3 ± 1 5	5 0 ± 1 7	4 3 ± 1 9	5 1 ** ±2 0
Combined Score[2]	5 5 ± 2 4	6 8 * ±2 5	5 8 ± 2 5	6 7 ± 2 5	5 4 ± 1 7	6 4 * ±1 8	5 6 ± 2 3	6 6 ** ±2 3
% Communities with vitamin A food scores above the HKI cut off values for risk of VAD								
Animal Food Score[1]	46 7	66 7	46 7	70 0	53 3	73 3	48 9	70 0**
Combined Score[2]	30 0	63 3 **	40 0	63 3 **	36 7	53 3	35 6	60 0**

* p-value ≤ 05 ** p-value ≤ 01 *** p-value ≤ 001

[1] animal sources include small fish with livers intact, eggs with yolk, liver, butter, cod liver oil , weaning food fortified with vitamin A, and margarine fortified with vitamin A

[2] total food sources include animal sources plus dark green leafy vegetables, carrots, ripe mango, ripe papaya, and yellow or orange sweet potato

Animal source scores are computed based on the sum total of days animal sources of vitamin A were consumed, Total food source scores are computed by dividing the sum total of days vegetables sources of vitamin A were consumed by six, and then adding this amount to the sum total of days animal sources of vitamin A were consumed

Table 5 6 Frequency of consumption of plant sources of vitamin A-rich foods at baseline and endline, by project area

% Children (12-59 months) who had eaten the following foods in the past 7 days	AREA 1 Base line n=902	AREA 1 End line n= 896	AREA 2 Base line n=882	AREA 2 End line n=909	AREA 3 Base line n=903	AREA 3 End line n=903	TOTAL Base line n= 2687	TOTAL End line n= 2708
Dark green leafy vegetables (as a food group)								
not Eaten	15 9	9 2 ***	11 5	12 4 ***	15 8	13 4 ***	14 4	11 7 ***
1-3 days	38 8	36 5	36 4	25 5	50 2	34 4	41 8	32 1
4-5 days	13 3	18 8	12 8	15 6	17 6	12 6	14 6	15 7
6-7 days	32 0	35 5	39 3	46 4	16 4	39 5	29 2	40 5
Carrots								
not Eaten	85 7	75 6 ***	87 4	82 3*	94 2	89 2 ***	89 1	82 7 ***
1-3 days	13 3	22 1	11 5	16 2	5 2	10 4	9 9	16 2
4-5 days	0 3	0 9	0 5	0 5	0 1	0 2	0 3	0 5
6-7 days	0 7	0 5	0 7	1 0	0 5	0 2	0 6	0 5
Ripe mango								
not Eaten	80 0	64 7 ***	67 9	80 5 ***	81 2	80 3	76 4	75 2
1-3 days	18 6	31 5	29 7	17 9	17 5	17 9	21 9	22 4
4-5 days	0 3	2 5	1 1	0 6	0 5	0 7	0 7	1 2
6-7 days	1 0	1 3	1 3	1 0	0 8	1 1	1 0	1 1
Dark yellow or orange squash								
not Eaten	44 2	31 3 ***	36 9	30 6*	51 9	43 9 ***	44 4	35 3 ***
1-3 days	46 8	51 1	53 5	58 6	43 8	48 4	48 0	52 7
4-5 days	2 2	7 8	5 0	5 3	2 7	3 8	3 3	5 6
6-7 days	6 8	9 8	4 5	5 5	1 6	3 9	4 3	6 4
Ripe papaya								
not Eaten	59 7	50 9 **	58 7	58 5	51 5	63 3 ***	56 6	57 6
1-3 days	34 9	44 2	37 7	37 2	42 5	33 9	38 4	38 4
4-5 days	2 8	2 1	1 8	2 2	2 8	1 3	2 5	1 9
6-7 days	2 6	2 8	1 7	2 1	3 2	1 4	2 5	2 1
Yellow or orange sweet potato or yam								
not Eaten	75 7	64 3 ***	60 5	49 1	68 2	43 4 ***	68 2	52 2 ***
1-3 days	20 2	30 0	31 8	35 6	27 0	41 1	26 3	35 6
4-5 days	1 3	2 9	3 4	6 3	2 9	6 9	2 6	5 4
6-7 days	2 8	2 8	4 2	9 0	1 7	8 5	2 9	6 8

* p-value ≤ 05 ** p-value ≤ 01 *** p-value ≤ 001

Table 5 7 Frequency of consumption of animal sources of vitamin A-rich foods and fortified foods, at baseline and endline, by project area

% Children (12-59 months) who had eaten the following foods in the past 7 days	AREA 1		AREA 2		AREA 3		TOTAL	
	Base line n=902	End line n= 896	Base line n=882	End line n=909	Base line n=903	End line n=903	Base line n= 2687	End line n= 2708
Eggs with yolk								
not Eaten	34 5	24 8 ***	34 8	30 3	26 9	28 0	32 0	27 7 **
1-3 days	51 1	58 0	46 6	50 3	55 9	57 4	51 3	55 2
4-5 days	5 9	9 6	8 3	8 3	8 8	8 3	7 7	8 7
6-7 days	8 4	7 6	10 3	11 2	8 4	6 3	9 0	8 4
Small fish								
not Eaten	58 5	56 1 **	69 0	59 3 ***	65 0	48 7 ***	64 2	54 7 ***
1-3 days	30 5	34 8	26 1	32 2	28 0	41 2	28 2	36 1
4-5 days	2 9	4 2	1 8	3 6	3 7	5 8	2 8	4 5
6-7 days	8 1	4 8	3 0	4 8	3 3	4 3	4 8	4 7
Any kind of liver								
not Eaten	74 7	63 0 ***	71 9	71 6	81 8	78 8	76 2	71 2 ***
1-3 days	24 6	35 8	26 4	27 2	17 7	19 9	22 9	27 6
4-5 days	0 4	0 7	1 3	1 0	0 4	0 7	0 7	0 8
6-7 days	0 2	0 5	0 4	0 2	0 0	0 6	0 2	0 4
Margarine fortified with vitamin A (ie , Star margarine)								
not Eaten	77 9	64 9 ***	70 8	70 1	74 5	70 5 ***	74 4	68 5 ***
1-3 days	11 9	22 4	19 3	17 5	15 7	15 7	15 6	18 5
4-5 days	1 7	3 7	3 5	3 4	3 0	1 1	2 7	2 7
6-7 days	8 5	8 9	6 5	9 0	6 7	12 6	7 3	10 2

*p-value ≤ 05 ** p-value ≤ 01 *** p-value ≤ 001

Table 5 8 Goiter status of women at baseline and endline, by project area

	AREA 1		AREA 2		AREA 3		TOTAL	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Prevalence of Goiter(%)	65 1	76 7	68 3	79 4	77 0	77 4	70 3	77 9
none	14 5	20 3	17 5	18 2	13 1	20 8	15 0	19 8
palpable	20 4	2 9***	14 2	2 4***	9 9	1 7***	14 7	2 4***
visible	34 9	23 3***	31 7	20 6***	23 0	22 6	29 7	22 1**
Total Goiter								*

* p-value ≤ 05 ** p value ≤ 01 *** p value ≤ 001

Table 5 9 Coverage of iodine oil supplementation among women at baseline and endline, by project area

	AREA 1		**AREA 2**		**AREA 3**		**TOTAL**	
IODIZED OIL CAPSULE	**Baseline n=1025**	**Endline n=1020**	**Baseline n=1038**	**Endline n=1044**	**Baseline n=1055**	**Endline n=1030**	**Baseline n=3118**	**Endline n=3094**
% Women who received iodized oil capsule during the past 12 months	58 4	43 5***	37 1	39 5	18 5	53 4	37 8	45 4

* p value ≤ 05 ** p value ≤ 01 *** p-value ≤ 001

with goiter given IOC (Objective 9), together with the increase in consumption of iodized salt (Objective 10) could explain the results observed

Objective 9
Coverage of iodized oil capsules (IOC) supplementation in pregnant women increased by twice the amount specified in the objective Table 5 9 (previous page) shows that coverage levels of IOC among women of reproductive age (15-40 years) dropped ~15% in Area 1, increased three-fold in Area 3, and stayed roughly the same in Area 2 This variation resulted from different supplies to the three areas

On the 1997 ASAP, only areas considered by the NS/DOH as endemic for iodine deficiency were provided with IOC Of the CS provinces, only Northern Samar (Area 3) and Masbate (one of 4 provinces in Area 2) received a supply of IOC for distribution None of the provinces in Area 1 received a new supply Table 5 10 shows a sharp drop in coverage from 1996 to 1997 based on national results (80% to 54%) However, there was a significant increase in coverage in Area 3 between the baseline and endline surveys and a slight increase in Area 2, suggesting that the project had some positive impact in terms of IOC coverage

Table 5 10 Coverage of iodized oil supplementation in project areas compared with National figures, 1993-97

		CSX Project Areas			
	National (%)	**Area 1 (%)**	**Area 2 (%)**	**Area 3 (%)**	**Total (%)**
1997	54	43 5	39 5	53 4	45 4
1996	80	Samar only 72 8	Albay only 70 0	na	na
1995	81	58 4	37 1	18 5	37 8
1994	88	na	na	na	na
1993	86	na	na	na	na

Objective 10
That iodized salt became more available and was used more in the project areas during the project is beyond doubt Only 44 households (1 4%) reported having iodized salt in the house at the baseline survey compared with 476 (15%) at the endline survey As impressive as this result is, even in communities where iodized salt was available, only 25% of households were using it (Table 5 11) Almost all the salt which was reported as iodized was verified as iodized when tested and this finding lends credibility to the findings reported

Table 5 11 Availability, purchase, and household use of iodized salt at baseline and endline, by project area

	AREA 1		AREA 2		AREA 3		TOTAL	
	Baseline n=1025	**Endline n=1020**	**Baseline n=1038**	**Endline n=1044**	**Baseline n=1055**	**Endline 1030**	**Baseline n=3118**	**Endline n=3094**
IODIZED SALT								
% Mothers who claimed they have iodized salt available in the community	5 6	80 1***	5 3	63 7***	6 2	38 2***	5 7	60 6***
% households who claimed they have iodized salt in the house at the time of survey	2 0	25 3***	1 8	13 9***	0 4	7 3***	1 4	15 4***
% households with iodized salt in the house as tested	1 5	24 6***	1 1	13 3***	0 4	6 0***	0 9	14 6***

* p value ≤ 05 ** p value ≤ 01 *** p value ≤ 001

The two most recent national post-ASAP surveys tested household salt for iodine content The results in Table 5 12 show a 1% increase for the country (from 14% to 15%) in the proportion of households whose salt tested positive for iodine from 1996 to 1997 In the CSX project areas, the proportion of households whose salt tested positive for iodine increased between 6 and 20-fold from 1995 to 1997 When disaggregated by province (Table 5 13), the provinces with the greatest pre-post intervention increases and highest overall consumption levels at endline were Southern Leyte and Biliran Iodized salt promotion was a focus for the project's interventions in these two provinces Indeed, the province where no project-supported stakeholders meetings for iodized salt (ie Northern Samar) were conducted had one of the lowest consumption rates

Nevertheless, there is still a long way to go before a satisfactory proportion of households are using iodized salt The major constraint is the price difference between iodized and regular salt Currently iodized salt is commercially available only through supermarkets and not in the local '*sari-sari*' stores This, together with the additional cost, deter the majority of the target population from using it

Iodized salt is sold through rural health centers and by BHWs, but there is a question of sustainability in local health workers intervening in this market This may be a necessary and effective strategy for the short-term, but a long-term solution needs to be identified because in the free market iodized salt is more expensive than uniodized salt In the project area some municipalities are considering passing ordinances regarding iodized salt (e g , Tomas Oppus, Southern Leyte) Enforcement of the national law is clearly important [20]

Objective 11

The prevalence of anemia in pregnant women fell sharply from 75% to 63%, a 14% reduction There was a 31% reduction in non-pregnant women (66 4% to 45 9%) At baseline, the average hemoglobin levels were between 11 0 g/dL and 11 4 g/dL for non-pregnant, and between 9 7 g/dL and 10 4 g/dL for pregnant women (Table 5 14) Mean post-intervention hemoglobin levels for non-pregnant and pregnant women were, on average, 0 7 and 0 5 g/dL higher compared to pre-intervention levels, respectively

As with the large reduction in the total goiter rate, these results require scrutiny Discussion of possible biases identified no obvious technical problems The HemoCue photometers used in both surveys were established to be functioning properly and the microcuvettes were within the expiration date This instrument is generally considered to be a reliable one and experienced field workers collected and analysed the blood samples The substantial increases in the proportion of women taking iron supplementation (Objectives 12 and 13) are consistent with the increases in hemoglobin observed

[20] Republic Act no 8172 mandates the iodization of all food-grade salt in the Philippines

Table 5 12 Household use of iodized salt in project areas compared with national figures

		CSX Project Areas			
	National (%)	**Area 1 (%)**	**Area 2 (%)**	**Area 3 (%)**	**Total (%)**
1997	15	24 6	13 3	6 0	14 6
1996	14	Samar only 10 8	Albay only 6 8	na	na
1995	na	1 5	1 1	0 4	0 9

Table 5 13 Use of iodized salt at baseline and endline, by project province

Province	Salt Forum	Baseline	Endline
Albay	yes	0 0	5 0
Masbate	yes	0 5	18 2
N Samar	no	0 4	6 0
E Samar	attempted	1 4	4 3
N Leyte	yes	1 9	17 3
Samar	yes	1 5	14 6
Biliran	yes	1 9	24 8
S Leyte	yes	1 2	34 3
Total		1 0	14 6

Table 5 14 Hemoglobin and anemia status of women at baseline and endline by project area

Iron Status	AREA 1 Baseline pregnant n=53 non-pregnant n=284	AREA 1 Endline pregnant n=35 non-pregnant n= 273	AREA 2 Baseline pregnant n=39 non-pregnant n=303	AREA 2 Endline pregnant n=54 non-pregnant n= 295	AREA 3 Baseline pregnant n=48 non-pregnant n= 291	AREA 3 Endline pregnant n=43 non-pregnant n= 302	TOTAL Baseline pregnant n=140 non-pregnant n= 878	TOTAL Endline pregnant n=132 non-pregnant n=870
Hemoglobin (g/dL) (x±sd) †‡								
non-pregnant	11 4 ±1 7	12 1 ±1 7	11 0 ±1 6	12 0 ±1 8	11 1 ±1 6	11 6 ±1 8	11 2 ±1 7	11 9 ±1 8 10 5 ±1 5*
pregnant	10 4 ±1 6	10 4 ±1 6	9 7 ±1 2	10 5 ±1 4**	9 9 ±1 4	10 6 ±1 5*	10 0 ±1 4	
Anemia prevalence non-pregnant (%)								
normal (≥12 g/dL)	41 9	56 8	27 7	55 6	31 6	50 3	33 6	54 1
mild (10-12 g/dL)	40 8	35 9	50 5	31 5	50 2	31 1	47 3	32 8
moderate (7-10 g/dL)	15 1	6 2	19 8	11 9	14 8	16 6	16 6	11 7
severe (<7 g/dL)	2 1	1 1	2 0	1 0	3 4	2 0	2 5	1 4
any (<12 g/dL)	58 1	43 2***	72 3	44 4***	68 4	49 7***	66 4	45 9***
Anemia prevalence pregnant (%)								
normal (≥11 g/dL)	37 7	34 3	12 8	35 2	20 8	41 9	25 0	37 1
mild (10-11 g/dL)	26 4	27 5	33 3	22 2	35 4	25 6	31 4	24 2
moderate (7-10 g/dL)	39 9	37 1	53 8	42 6	41 7	30 2	42 9	37 1
severe (<7 g/dL)	0 0	2 9	0 0	0 0	2 1	2 3	0 8	1 5
any (<11 g/dL)	62 3	65 7	87 2	64 8*	79 2	58 1*	75 0	62 9*

† sd standard deviation ‡ Hemoglobin status was measured on a 30% sub-sample of women

Objective 12
The increase of almost 30% in the proportion of pregnant women taking iron supplements by the fifth month of pregnancy is consistent with the fall in anemia rates (Table 5 1) This increase is all the more impressive because there were reports in some areas of inadequate supplies of iron tablets In many areas, most pregnant women were provided with only 20 iron tablets during the NID or ASAP The procurement of iron for supplementation was traditionally a national responsibility, but with devolution, this responsibility is no longer accepted by Manila

Objective 13
The data collected did not allow the objective as stated in the DIP to be analyzed because the period of supplementation was described only in relation to duration but not in relation to trimester However, by specifying a period of at least four months of supplementation, the 'latter two trimesters' must be included Thus the percentages presented in Table 5 1 showing an increase of 55% (14 0% to 21 7%) relate to four months of supplementation rather than two months Very few pregnant women took iron tablets for more than four months, 9 8% at baseline and 13 8% at endline The proportion of women who reported that they took iron tablets daily for two months (trimesters not specified) increased 56% (27 9% to 43 4%)

*c **Results from endline survey not specified in the DIP objectives***

i Growth monitoring and promotion of children less than 5 years of age
In each project area, there was an increase in the proportion of children <5 years of age who were weighed at least one time in the previous year (Table 5 15) The increase was significant among children <6 months in each area and among children 6-11 months of age in Area 2 The average and median number of times children <6 and between 6-11 months were weighed increased significantly between the baseline and endline surveys There was no significant change in the mean frequency of times 12-23 month old children were weighed, except in Area 3 where there was a significant decrease While there appears to have been a significant improvement in both coverage and frequency of weighing children under one year of age at endline, the low proportion of children who reported being weighed five or more times in the previous year suggests there is still much to be done before the 'ideal behavior' of monthly weighing is achieved

ii Micronutrient awareness and knowledge levels of caretakers
There was a significant pre- post-intervention increase in the awareness of vitamin A, iron and iodine in all project areas (Table 5 16) Health workers were the predominant source of information about each micronutrient in all areas Caretakers were asked about specific aspects of each micronutrient such as its function for the body, health consequences of deficiency, and local food sources containing the micronutrient For each micronutrient and for each specific knowledge area there was a significant increase in each project area at endline compared with baseline

Table 5 15 Coverage of growth monitoring services at baseline and endline, by project area

	AREA 1		AREA 2		AREA 3		TOTAL	
	Baseline n=1666	**Endline n=1660**	**Baseline n=1761**	**Endline n=1714**	**Baseline n=1802**	**Endline n=1774**	**Baseline n=5229**	**Endline n=5148**
Growth Monitoring								
Percent of children weighed at least once during the past 12 months by age								
<6 months	66 3*	75 8	57 2	67 2*	57 3	72 8**	60 1	71 8***
6-11 months	88 7	91 0	82 7	84 8**	89 7	93 6	87 1	92 8**
12-23 months	88 0	91 1	81 8	85 4	91 8	93 3	87 2	89 7
24-35 months	87 5	85 7	80 7	82 9	90 6	91 4	86 2	87 6
36-47 months	86 8	83 8	83 6	77 1	88 5	88 0	86 3	84 9
48-59 months	84 9	85 9	79 9	72 8**	89 9	84 1	85 1	82 4
All	84 8	86 0	79 1	82 1*	86 4	87 9	83 4	85 4**

Frequency of child weighings per year (%)								
<6 months	33 7	24 2	43 2	33 2	42 7	27 2**	40 1	28 2***
not weighed	63 5	70 8	55 1	64 2	55 8	67 6	58 0	67 5
1-4 times	2 8	5 1	1 6	2 3	1 5	5 2	1 9	4 3
5-8 times	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
9-12 times	1 2±1 3	1 5±1 4*	0 9±1 1	1 4±1 4 ***	1 1±1 2	1 7±1 5 ***	1 1±1 2	1 5±1 4 ***
Mean (±sd)								
6-11 months	11 3	9 0	17 3	6 6*	10 4	6 1	13 0	7 2***
not weighed	59 4	59 0	65 9	69 8	62 7	58 0	62 8	62 2
1-4 times	18 8	24 7	11 7	17 0	15 4	23 6	15 2	21 8
5-8 times	10 6	7 3	5 0	6 6	11 4	12 3	9 1	8 8
9-12 times	3 5±3 1	3 6±2 8	2 5±2 6	3 2±2 7*	3 6±3 3	4 0±2 9	3 2±3 0	3 6±2 8*
Mean (±sd)								
12-23 months	12 1	9 0	18 3	15 3	8 3	6 7	12 9	10 3
not weighed	57 6	59 0	62 4	63 9	60 8	69 4	60 4	64 1
1-4 times	8 2	11 8	12 4	11 4	12 5	12 0	11 2	11 7
5-8 times	22 1	20 23	6 9	9 4	18 4	12 0	15 5	13 6
9-12 times	4 5±4 4	4 2±3 8	2 7±2 9	3 1±3 0	4 3±4 0	3 5±3 1 **	3 8±3 9	3 6±3 4
Mean (±sd)								

* p-value ≤ 05 ** p-value ≤ 01 *** p-value ≤ 001

Table 5 16 Levels of awareness of micronutrients and nutrient-specific knowledge among women by study area

	AREA 1		AREA 2		AREA 3		TOTAL
	Baseline n=1025	Endline n=1020	Baseline n=1038	Endline n=1044	Baseline n=1055	Endline n=1030	Baseline n=3118
VITAMIN A							
Heard of vitamin A (%)	82 0	91 4 ***	68 6	79 4***	70 9	85 2***	73 8
Source of information among those who heard of vitamin A (%)							
Health center/midwife	60 5	81 8***	47 7	73 4***	61 0	74 2***	56 4
Mass media	15 5	20 9***	14 9	22 9***	4 9	11 2***	11 7
ASAP or IND/KOP	8 9	12 4*	3 6	6 0**	2 0	17 7***	4 8
Knows at least one specific effect of vitamin A on the body (%)	42 5	71 8***	25 5	59 8***	30 5	65 8***	32 8
Knows at least one specific consequence of VAD (%)	48 1	73 9***	39 8	60 5***	44 2	66 0***	44 0
Can name at least one vitamin A rich food source (%)	70 8	84 3***	61 9	74 7***	61 5	75 2***	64 7
Recognize a VAC (%)	64 4	81 9***	51 3	72 5***	49 6	76 2***	55 0
IRON							
Heard of iron (%)	72 4	79 7***	55 9	67 0***	45 9	67 3***	57 9
Source of information among those who heard of iron (%)							
Health center/midwife	62 6	71 3***	43 8	61 9***	39 7	59 7***	48 6
Mass media	12 2	16 1*	10 6	16 5***	3 4	6 9***	8 9
ASAP or IND/KOP	1 9	5 2***	0 6	2 3***	0 2	5 3***	0 9

Knows at least one specific effect of iron on the body (%)	36 1	33 3***	34 2	26 6***	23 6	28 5***	31 3
Knows at least one specific consequence of lack of iron on the body (%)	50 9	59 5***	42 2	43 9	29 3	44 6***	41 1
Can name at least one iron rich food source (%)	47 7	63 3***	41 6	52 0***	28 9	48 4***	39 3
IODINE							
Heard of iodine (%)	61 7	77 5***	43 4	57 3***	36 6	66 8***	47 1
Source of information among those who heard of iodine (%)							
Health center/midwife	49 4	66 9***	30 9	52 2***	29 8	56 9***	36 6
Mass media	9 8	17 9***	11 6	14 8*	5 2	8 8***	8 8
ASAP or IND/KOP	8 9	4 8***	3 3	2 2	0 4	8 9***	4 2
Knows at least one specific effect of iodine on the body (%)	33 7	46 7***	22 9	37 1***	21 5	41 6***	25 9
Knows at least one specific consequence of lack of iodine on the body (%)	37 7	55 9***	27 6	41 0***	22 7	46 4***	29 3
Can name at least one iodine rich food source (%)	35 6	57 8***	27 5	41 6	22 5	46 0	28 5

* p-value ≤ 05 ** p value ≤ 01 *** p-value ≤ 001

Statistical analyses to assess the impact of the program

The absence of a control group limits the conclusions that can be drawn from the analyses of behavior change, i e , the ability to answer the question whether or not the project activities caused the behavior changes observed The project team analyzed the data to compare the behaviors of those who 'participated' in the project with those who 'did not participate' in the project Participation in the project was defined at two levels community and individual The community level variable was created by classifying mothers as residing or not residing in a municipality in which the MNC had received the capacity building interventions, ie , a 'strengthened municipality' The individual level variable was created by classifying mothers as having attended or not attended 'mother's classes' Logistic regression models were developed for each level of participation to identify the factors which explained the nine reported behaviors (Table 5 17) The statistic of interest from the models is an odds ratio for the interaction term between time and project participation This describes the change between baseline and endline in the relative proportions of behaviors reported by project participants and non-participants The odds ratios were adjusted for the covariates that are specified in the footnotes corresponding to each run (ie Run #1 controls for maternal education and ownership of TV) and the cluster sample design effect The FET believes these analyses to be valid and the most appropriate way of overcoming the design constraint of not having a control group

In relation to 'strengthened municipalities', runs 8 and 9 indicate that the probabilities of iodized salt being available in the community and having iodized salt in the house, were significantly greater in municipalities in which the MNCs had received the strengthening interventions than in other municipalities This presents strong statistical evidence that the project was effective in increasing the availability and the use of iodized salt However, strengthening MNCs alone had no measurable impact on mothers' basic knowledge of vitamin A or other behaviors targeted in the child growth interventions This is consistent with the expectation that 'strengthening committees' interventions alone are unlikely to effect mothers' behaviors in the time frame of this project

In relation to 'participation in mother's class', the analyses compare the effect of attending classes on particular behaviors at baseline with the comparable effect at endline This somewhat complex analysis is required for two reasons a) some mothers will have reported targeted behaviors regardless of attending project activities, and b) mothers were 'given education' about targeted behaviors prior to the project and this may have had some effect The project was designed to enhance the effects of this education

Results for four of the nine runs indicate significant, or close to significant, positive impacts of the project on these behaviors There is statistical evidence that the project activities did have a favorable impact on mothers giving infants colostrum, children receiving vitamin A capsules, children being weighed in the past 12 months, and lastly, mothers' basic knowledge of vitamin A The mother's classes had no measurable impact on mothers attending pre-natal classes, taking iron tablets during pregnancy, or exclusively breast feeding their infants to four months of age As expected, attendance at

Table 5 17 Odds ratios estimated from logistic regression models describing the impact on selected behaviors of participation in project activities at community and individual levels

Behavior	Strengthened Municipality * Time			Mother's Class * Time		
	Odds ratio	95% CI	p-value	Odds ratio	95% CI	p-value
RUN #1 Probability of mothers going to pre-natal visits during pregnancy (among mothers with 0-11 months old infants)	0 84	0 33, 2 14	0 709	1 97	0 71, 5 45	0 183
RUN # 2 Probability of taking of Iron tablets during their last pregnancy (among mothers with 0-11 month old infants)	1 20	0 71, 2 05	0 479	1 06	0 42, 2 66	0 900
RUN # 3 Probability of exclusive breastfeeding in the first 4 months of baby (among mothers with 4-11 month infants)	1 02	0 48, 2 13	0 960	0 94	0 44, 2 01	0 865
RUN # 4 Probability of giving of colostrum (among mothers with 0-11 month old infants)	0 93	0 22, 3 84	0 916	2 22	1 06, 4 65	0 036
RUN # 5 Probability of receiving a vitamin A capsule among children 12-59 months	0 71	0 33, 1 56	0 383	1 73	1 03, 2 90	0 040
RUN # 6 Probability of a child (0-59 months old) being weighed in the past 12 months	0 83	0 62, 1 11	0 219	1 45	0 99, 2 13	0 056
RUN # 7 Probability of a mother having knowledge of vitamin A	0 87	0 63, 1 21	0 412	1 46	1 01, 2 09	0 042
RUN # 8 Probability of having iodized salt in the community	8 86	2 4, 32 6	0 002	1 15	0 59, 2 22	0 665
RUN # 9 Probability of having iodized salt in the house	2 46	1 04, 5 77	0 040	1 46	0 66, 3 23	0 337

Runs # 1, 2 controlled for maternal education , ownership of television set
Run # 3 controlled for maternal education, ownership of television set and age of mother
Run # 4 controlled for ownership of television set and age of mother
Run # 5 controlled for ownership of radio, age of child, maternal education
Run # 6 controlled for type of house, ownership of TV, age of child, maternal education
Runs # 7- #9 controlled for type of house, ownership of TV and maternal education

mother's classes did not influence the availability of iodized salt in the community or the household

In conclusion, the absence of a control group made it impossible to attribute with certainty the changes observed to the effect of the program, but the results of the logistic regression analyses offer strong statistical support to the conclusion that, indeed, the project did have a positive impact on the several of the targeted behaviors

6 Issues identified by the evaluation team, project, or PVO

Competency of the HKI/Philippines team

The team comprised extremely impressive, highly committed professionals with complementary skills who functioned superbly together Comments made during interviews undertaken by the FET were strongly and uniformly positive Comments such as "the team gave us a model of how to work", and that there was "something special about the HKI team" were typical of the numerous complimentary comments made This was all the more impressive because there were only three field staff to cover eight provinces and the team was constantly "stretched thin"

Examples of this team work observed by the FET included the extremely smooth running of the Feedback Conference which was attended by more than 100 participants and the organization of the field work facilitating the work of the FET, immediately preceding and following the Conference

The nucleus of this team has been together now for more than six years and has been a valuable resource in itself for nutrition in the Philippines Such a competent and motivated team is desirable for a study of program efficacy (whether or not the model can work in an ideal situation), but in terms of establishing program effectiveness (whether or not the model works under typical program conditions), one must attempt to determine the extent to which success may be dependent on implementation by this unique group of people This is an empirical question which can be answered by undertaking the follow-on project proposed in Recommendation 1 of this report

How generalizable is the model

The model used in this project demonstrated that it is likely to be effective in the Philippines and it seems likely that it will also work in other countries The following criteria provide a guide for determining the applicability of the model for other countries

- a decentralized administration which has occurred to varying degrees in many countries -- the critical factor here is that the model must be implemented at administrative levels which have control of budgets for service delivery,
- a willingness of local government personnel to be proactive and committed in relation to public service,
- the absence of civil unrest and some degree of economic well-being,

- cultural characteristics such as enjoyment of social activities and strong community spirit

Procurement of iron tablets was inadequate
Procurement of pharmaceuticals in the Philippines has become a difficult issue since devolution There appeared to be tension between the national and provincial levels of government regarding the responsibility for funding the procurement of iron tablets At the time of the FE, there was no apparent consensus on what to do about it

Budget management
The project budget was entirely allocated at the conclusion of the 6-month no-cost extension The HKI/Philippines Finance Officer reported that the budget had presented no particular difficulties Given the under expenditure noted by the MTE, together with the Asian Financial crisis during the last few months of the project, this was a noteworthy achievement

7 Innovations and lessons learned

a Innovations

i **The model for strengthening nutrition committees** was a major innovation Although some aspects of the model remain to be strengthened, the essential components of it were shown to be highly appropriate These included reorganization, group processes, assessing needs, use of data for advocacy and planning, and careful monitoring for management of the activities That HKI, the 'catalyst for action' and technical assistance, was strategically positioned as a resource, available to LGU and DOH personnel to take advantage of, was a critical factor in its success

ii **The Child Growth Basic Learning Package** and the complementary training programs developed in collaboration with UNICEF will be disseminated throughout the country This educational package has been developed specifically for the target population, but it could serve other countries as a useful basis from which population-specific modifications could be made as required Central to the success of this package was its emphasis on participatory, experiential learning techniques

iii **The Salt Fora** as a means of initiating contact among stakeholders (producers, retailers, health workers and LGUs) to promote consumption of iodized salt was highly successful and is an effective model for other PVOs to follow

b Lessons learned

i Capacity building activities should be focused more narrowly in the initial stages of projects such as this one In this way, successful models will be established quickly and these then provide an example for others to follow

ii Objectives related to the process of management and planning should be included in the DIP

iii The project was well integrated into the existing nutrition infrastructure in the project location and this was important to its success This is an aspect of project planning and implementation that requires meticulous attention to communication with all stakeholders at each level the project is operating Managers with concern for sustainability of their project activities must be vigilant in this regard

iv Well implemented projects have the potential to make significant impacts on behavioral objectives in short time frames e g , 12 to 18 months

v The benefits to funding agencies of supporting organizations with existing infrastructure and a track record in a specific country were demonstrated clearly in this project It is hard to imagine an organization being able to achieve the same success observed in this project without the history and respect that HKI has established in the Philippines

8 Achievements and constraints

a Success of the project in meeting its objectives

The project had with remarkable success in both meeting its behavioral objectives as well its objectives related to the process of building capacity in its partner institutions The achievement of the behavioral objectives resulted in an impressive list of outcomes including

- improvements in weight-for-age of young children,
- increased exclusive breast feeding of infants < 4 months,
- improved complementary feeding of infants 6-11 months,
- increased coverage of vitamin A supplementation and consumption of vitamin A-rich foods,
- increased coverage of iron supplementation and IOC for pregnant women,
- increased use of iodized salt, and
- reduction in prevalence of goiter and anemia among women of childbearing age

The FET has confidence that the reported achievements reflect real improvements in the indicator variables The FET was impressed with the conduct of the surveys and the data analysis by the HKI staff Variables were analyzed in a variety of ways and compared

both with other variables within the data set and with results from other surveys where possible Examples of these tests of consistency were described in Section 5 for the dramatic reductions in prevalences of goiter and anemia There was sufficient consistency across these results to have confidence in the findings

The improvements in socioeconomic status noted during the project are likely to have contributed to improvements in the indicator variables used to assess achievement of the objectives Although the absence of a control group limits the strength of conclusions related to the impact of project activities on objectives, the results of statistical analyses undertaken to address this issue indicated they did have positive effects, independent of other factors Together with the evidence of success in relation to sustainability of the capacity building interventions, this conclusion allows the FET to confidently and strongly recommend that this model be developed and taken to scale

b Most important achievements

i The project developed and implemented a model to reactivate in a sustainable way nutrition committees at provincial and municipal levels that were functioning poorly or non-functional This achievement is evidenced by

- PNCs and MNCs becoming reorganised, active, and effective,
- increased morale and skills of members which led to subsequent success in advocacy, resource generation, integrated planning, training, and motivating others to become involved in nutrition-related activities,
- facilitating the creativity of local innovation which was expressed, for example, in approaches to motivating volunteers in villages to increase the effectiveness of their work and the rapid construction of Growth Posts,
- participation of Local Chief Executives (LCEs -- ie Governors at provincial and Mayors at municipal levels in workshops and meetings of the project),
- statements of politicians, senior LGU personnel, and members of PNCs and MNCs that the model developed would be continued after HKI withdrawal

ii The project developed and promoted at all levels of the bureaucracy, a comprehensive, intersectoral view of nutrition which recognized the importance of planning, advocating for, and then managing interventions addressing the causes of identified nutrition problems This replaced the existing 'old view of nutrition' which focussed on supplementary feeding of severely malnourished children (largely with food aid donated by the US), a 'Nutrition Month' during which the highlight was typically a street parade, and more recently national micronutrient supplementation days Nutrition planning was undertaken, but was generally a fragmented and uncoordinated activity that did not achieve integration across sectors

iii The project developed excellent workshop packages for enhancing a range of skills related to group dynamics, assessing needs, planning, advocacy, and managing nutrition programs These are complete and can be usefully disseminated throughout the country

iv The project developed situation analyses at provincial and municipal levels for advocacy, planning and monitoring nutrition programs and policies

v The project developed a model and training package for a community-based monitoring system which enabled BHWs to collect and present information about the nutritional situation in their communities

vi The project raised level of awareness of LCEs regarding nutrition through effective advocacy and subsequently increased resource allocation for nutrition interventions substantially in two provinces and expansion to other municipalities

vii The project developed and refined the Salt Forum, a method of promoting consumption of iodized salt which clearly demonstrated its effectiveness The Salt Forum provides the opportunity to initiate contact between producers, potential distributors, and retailers as well as health personnel and politicians to 'kick start' the free enterprise system in promoting the consumption of iodized salt

viii In collaboration with UNICEF, the project developed the CG-BLP, an excellent nutrition education resource, that is now in strong demand throughout the country A module for training of trainers in the use of the package was also developed and widely implemented

ix The project met with remarkable success in achieving nine of 13 behavioral objectives set in the DIP

What contributed most to success?

- Strategic positioning of the project as a 'resource to be accessed '
- The vision in project design which made it the 'right intervention' for the time, the place, and the population The timing of implementation was vital because the model thrived on the flux associated with the process of devolution of political power to LGUs
- A superb team enthusiastic, hardworking and committed, with complementary knowledge and skills which enabled it to address the needs expressed by the partners, given leadership by example and allowing members sufficient autonomy to encourage creativity, members demonstrated impressive management/organizational skills HKI/Philippines was initially lucky to recruit the personnel making up this team, but the teamwork demonstrated requires more than luck -- it requires hard work, sensitivity, patience and the ability to compromise by all involved The team deserves enormous acknowledgment for their exemplary work
- The model required, and was allowed, flexibility and patience
- The recommendations of the MTE were timely, and the team's implementation of them contributed significantly to the success achieved

- Aspects of Filipino culture that result in social gatherings being generally recognized as a reason to have fun, as well as a strong community spirit at the village level were important components
- Integration of input from both hierarchies of nutrition services in the Philippines was essential to success
- The experiential, participatory, or adult learning approach used in this package was popular, a 'top of mind' issue almost always commented upon positively by participants as a highlight of the project

c Constraints

i Strengthening community action is inherently a process that impinges on leadership priorities and decisions at all levels, but particularly at the municipal level The MNCs then inevitably have some vulnerability to political change This is a constraint on sustainability, but a necessary one at the current stage in the development of this country

ii Inertia was so great and leadership was so weak in two of the eight provinces and four of the 13 of the municipalities that sustainable change was not achieved in the time frame of the project The priorities of LCEs had enormous impact, either positive or negative, on the success of the project activities in different places Although certainly not always true, female politicians were more likely than male politicians to support project activities

iii The funds available to PNCs and MNCs were determined to some extent by the socioeconomic status of the local area, and hence lack of funding was a greater constraint in areas with poor economic base, often the areas with the greatest nutrition problems

iv A constraint on the promotion of iodized salt was its relatively high price compared with uniodized salt This constraint was compounded by the apparent unwillingness, or inability, of LGUs to enforce the available national legislation to prohibit sale of uniodized salt

v Changes in the procurement of pharmaceuticals associated with devolution resulted in an inadequate supply of iron tablets in many areas

vi There was an inadequate supply of Child Growth counselling cards throughout the project area BHWs reported this as a constraint on their activity

vii Absence of core funding for the HKI/Philippines office

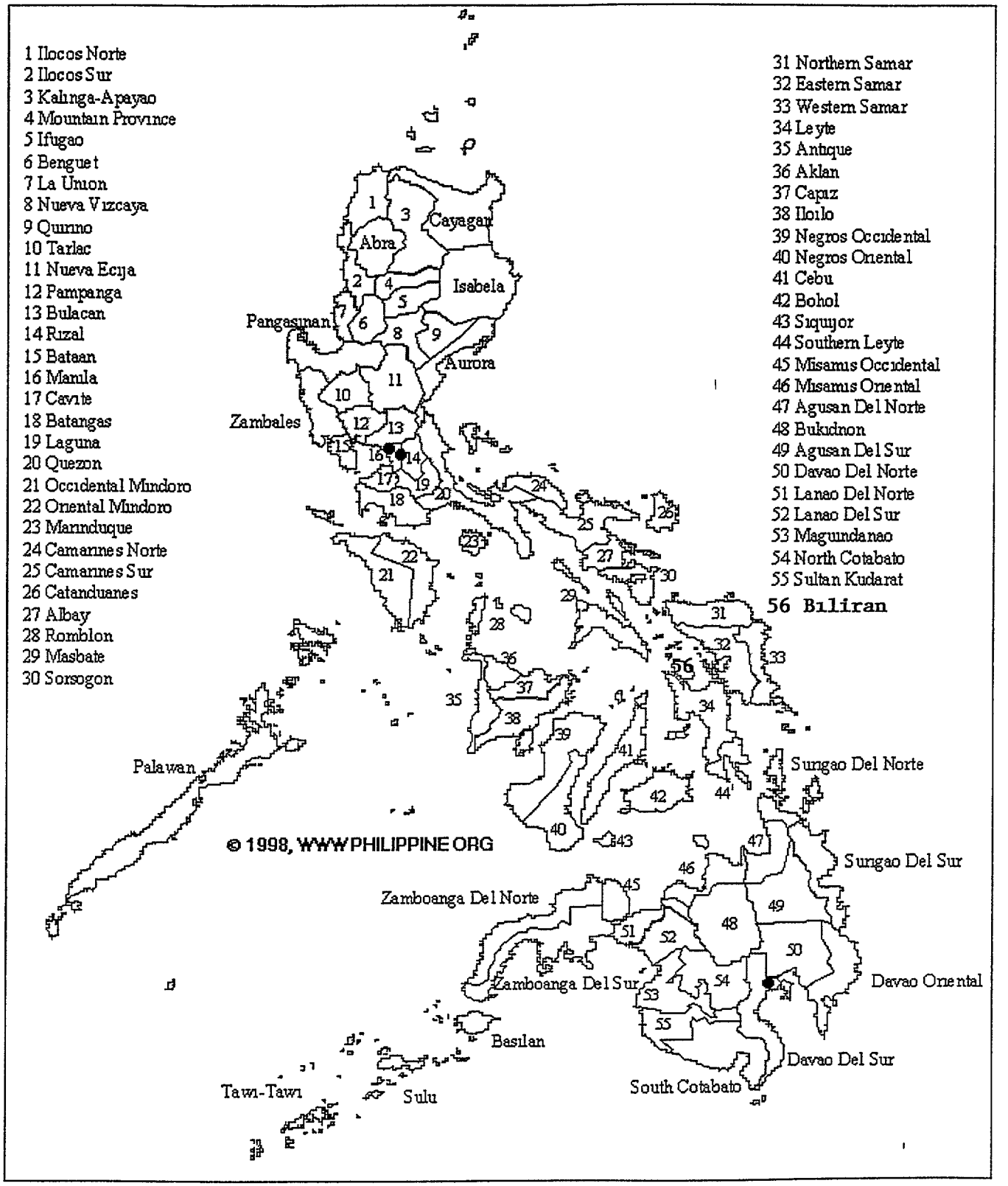
viii The last six months of the project were constrained by the economic downturn in Asia, and the El Nino induced drought conditions which restricted options for agricultural initiatives undertaken by some MNCs This was reported as a constraint by MNC in Villaba, for example, which required the planting of food crops as part of the introduction

of growth posts

ix Project activity at the village level remains at a relatively low level of intensity and this was expected to limit the attainment of potential impact on behavioral objectives The village level interventions (mother's classes, counselling mothers by BHWs using counselling cards, community-based monitoring, iron supplementation, growth monitoring, iodized salt procurement, salt testing in schools) were initiated less than 12 months before the endline survey This short time frame was necessary because interventions requiring organizations to adopt new ways of operating take time, particularly when the catalyst for change has no formal line of authority to bring about 'change by decree' The report of the MTE noted the 6-month delay in project activities associated with the 1995 elections was beyond the control of the project

x The absence of a control group as part of the baseline and endline surveys, while appropriate for a Child Survival project, limits the strength of conclusions that can be drawn relative to project impacts on behavioral objectives

Appendix I Location of the project area in the Philippines



Appendix II
Survey Methods

The evaluation study conducted a baseline (pre-intervention) and endline (post-intervention) cross-sectional survey in randomly selected municipalities from all eight project provinces from September to October 1995 and September to November 1997 It used a multi-stage cluster sample design and included over 3000 households, 5000 preschool children, and 3000 reproductive-age women Data were collected on the weight and vitamin A status of children, the iron and iodine status of women, access, use and coverage of specific health services, maternal health behavior and knowledge of infant and child feeding practices and micronutrients, and household socioeconomic status

Study Design

The eight project provinces were grouped into three project areas based on whether or not pre-existing and/or complementary child survival interventions (supported from non-CSX funds) were being implemented (see table below) In this way, the evaluation design sought to control for potential interactive or contamination effects Area 1 included three provinces in which only CSX-supported interventions were being implemented Area 2 included four provinces in which both CSX-supported and complementary UNICEF-supported "Child Growth" interventions were being implemented Area 3 included one province, Northern Samar, where HKI had implemented a vitamin A and infant feeding project (VITEX) In each of the three areas, identical cross-sectional surveys were conducted two years apart, the first from September to October 1995 and the second from September to November 1997

Provinces by Area and Region

Studyt Area	Region	Province	Child Growth Project Area	VITEX Project Area
1	Eastern Visayas	Biliran	No	No
		S Leyte	No	No
		W Samar	No	No
2	Bicol	Albay	Yes	No
		Masbate	Yes	No
	Eastern Visayas	N Leyte	Yes	No
		E Samar	Yes	No
3	Eastern Visayas	N Samar	No	Yes

Study Population

A three-stage stratified cluster random sampling design was used to select study subjects with municipalities, catchment areas within municipalities and household clusters as, respectively, the primary, secondary and tertiary sampling units A household cluster was defined as a contiguous grouping of 35 households The selection of household clusters for inclusion in the study was done by systematic sampling proportional to size Only households with children below five years of age or women of reproductive age (i e 15-40 years) were included

Data Collection

Three field teams, each consisting of a nurse and two to three interviewers, collected the data Each team was in the local language where they worked Each nurse was trained to examine women for goiter and children for xerophthalmia, obtain finger-prick blood samples from women (for hemoglobin determination), and weigh children Each interviewer was trained to administer the household and HKI Food Frequency questionnaire Field practice sessions were conducted to standardize interviewing, weighing, xerophthalmia, hemoglobin and goiter assessment, and recording skills

All children less than 24 months of age were weighed Weights were measured to the nearest 100 g using a 25 kg Salter hanging scales (CMS Weighing Equipment, London), with children wearing no more than a light pair of short trousers or a dress Children were examined for xerophthalmia by a survey team nurse who did not know the VAC status of the children Night blindness was diagnosed by questioning those responsible for the child Each eye was examined by a nurse and Bitot's spots were noted when observed All children confirmed to have active xerophthalmia were given three large doses of vitamin A to be taken over two weeks All women between 15-40 years of age were examined for goiter Finger-prick blood samples were taken on a randomly selected sub-sample of women Hemoglobin concentration was analyzed using the HemoCue method

Mothers of all children 0-11 months were interviewed about their pre-natal check-up status, tetanus toxoid (TT) immunization status, use of iron supplements during pregnancy, breastfeeding and complementary feeding practices Mothers of all children were asked about their children's age, sex, participation in weighing sessions, vitamin A capsule supplementation and recent illness history (previous 3 months)

The HKI Food Frequency Method (HKI-FFM) was used to determine the frequency of consumption of animal and plant sources of vitamin A by children 12-59 months of age during 7 days prior to the survey Also, all women were interviewed about their pregnancy and/or lactation status, iodine supplementation, participation in mother's classes, use of and access to health services, and awareness and knowledge about vitamin A, iron and iodine Specific questions were asked about food sources, benefits, and consequences of deficiency In addition, a sample of salt from each household was tested for the presence of iodide or iodate Data on household socioeconomic indicators such as education and occupation of household head, number of household members, mothers

educational attainment, type of house, possession of radio or TV, and presence of electricity were also collected

Variables

Hemoglobin level was used as an indicator of iron status Anemia was defined as hemoglobin concentration of <11 g/dl for pregnant women, and <12 g/dl for non-pregnant women Palpable or visible goiter was used as an indicator for iodine deficiency Total goiter rate includes both palpable and visible goiter Weight measurements were converted to a weight-for-age index and then expressed as Z-scores relative to the international National Center for Health Statistics (NCHS) reference standards Children were classified as underweight if their respective weight-for-age Z-scores were less than 2 standard deviations below the reference median Underweight status was also computed using a Philippine reference population Vitamin A scores for animal food and combined (animal and plant) food sources for children were computed using the HKI Food Frequency methodology

Statistical analyses

Data entry took place in Manila Analyses were carried out by using FoxPro 2 6 (Microsoft Corp) and Intercooled Stata 5 0 for Windows (Stata Corp , TX) Two-tailed significance tests were used throughout Comparisons between mean values were made by Student's t-test and ANOVA Differences between proportions were assessed by χ^2 Pre- and post-intervention changes were computed for each project area, and for all three project areas

The cluster sample design used to select the children for the study violated standard independent assumptions in sample selection To the extent that children within the same cluster (i e , village) have characteristics that are more like one another than children selected from other clusters in the study, the actual variance of estimates may be considerably larger than that computed using simple random sampling principles Variance estimates and test statistics presented in these preliminary analyses have not been computed for the effects of the design on estimation and inference

HKI-ITER BASELINE SURVEY FOR THE CHILD SURVIVAL PROJECT
INTERVIEW SCHEDULE FOR HOUSEHOLDS
(LEYTE [CEBUANO] TRANSLATION)

Interviewer _____	Province _____ ☐☐
Date of Interview _____	Municipality _____ ☐☐
Time Started _____	RHM _____ ☐
Time Ended _____	Barangay _____ ☐☐☐
	Household No

INTRODUCTORY STATEMENT:

Good Morning/Afternoon. I am a representative of a private organization that is presently conducting a survey on the knowledge, attitude, and practices of mothers and the health status of children in the community. You were chosen as one of the respondents for the survey. We would like to request 15-20 minutes of your time to answer to some of our questions. ***The information that will be gathered through the survey will help us evaluate and improve our health and nutrition programs. All the information that you will share with us will be treated as confidential. (EMPHASIZE.)***

	Field Editing	Reinterviewing	Office Editing	Coding	Encoding
Name					
Date					

BLOCK A: DEMOGRAPHIC PROFILE OF THE HOUSEHOLD

NOTE TO THE INTERVIEWER:
- **The RESPONDENT of this block must be the Household Head (HH HEAD) or his/her spouse.**

1 **Kinsay ngalan sa pangulo sa panimalay?** *What is the name of the household head?* **(NAME OF HH HEAD)**	_____
2 **SEX OF HOUSEHOLD HEAD**	☐ **1-** *Male* ☐ **2-** *Female* ☐
3 **Kanus-a ang adlaw'ng natawhan sa pangulo sa panimalay?** *When is the Birthdate of the Household Head? So, he is now ___ years old?* **(AGE OF HH HEAD)**	_____ ☐☐
4 **Unsay estado sa pangulo sa panimalay?** *What is the Marital Status of the HH Head?* **(MARITAL STATUS OF HH HEAD)**	☐ ☐ **1-** *single/unwed* ☐ **2-** *married* ☐ **3-** *separated* ☐ **4-** *widowed*

5 **Unsa ang kinatas-an nga iyang nakab-ot o nakompleto nga edukasyon?** *What is the highest grade in school that the HH Head has completed?* **(EDUCATIONAL ATTAINMENT OF THE HH HEAD)**	☐ ☐ 0-*No schooling* ☐ 1-*Did not finish elementary* ☐ 2-*elementary gradudate* ☐ 3-*did not finish high school* ☐ 4-*High school graduate* ☐ 5-*Did not finish college* ☐ 6-*College graduate* ☐ 7-*Vocational Course graduate*
6 **Unsay trabaho sa pangulo sa panimalay?** *What is the usual occupation of the HH Head?* **(OCCUPATION OF HH HEAD)** **(PROBE IF HH HEAD IS EMPLOYED OR HAS HIS OWN BUSINESS.)**	☐ ☐ 1-*None/housewife* ☐ 2-*Professional/Managerial* ☐ 3-*Clerical* ☐ 4-*Own Busisness* ☐ 5-*Farming/Fishing* ☐ 6-*Handicrafts* ☐ 7-*Service* ☐ *Others (specify)* _____
7 **Unsay iyang relihiyon?** *What is the religion of the HH Head?*	☐ ☐ *1-Roman Catholic* ☐ *2-Iglesia ni Kristo* ☐ *3-Protestant* ☐ *4-Seventh Day Adventist* ☐ *5-Muslim* ☐ *Others (specify)*_____
8 **Pila ang mga sakop sa panimalay? Ipahayag nga ang mga sakop sa panimalay mao da kadtong magsawo pagpangaon sa kalan-on gikan sa komon nga lung-aganan.** *How many are members of your household? Explain that the members of the household are those who eat from a common pot* **(HOUSEHOLD SIZE)**	☐☐ _____

9 Pahnug inatag kanako ang mga ngalan sa mga sakop sa inyong panimalay, na-tawhan, panuigon, may sweldong madawat o' wa.

May I have the names of your household members, their birthdates, ages, and whether they are earning income or not

NAME	RH H	BIRTHDATE (COMPARE AND CHECK WITH AGE FOR CONSISTENCY)	AGE	SEX	CS	EDUCATION	INCOME EARNER? 1-YES 2-NO
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

***CHECK WITH RESPONDENT WHETHER ALL THE PERSONS MENTIONED ABOVE EAT TOGETHER.**

***CHECK THAT 'EDUCATION' AND 'INCOME EARNER?' ARE FILLED UP FOR ALL PERSONS.**

NUMBER OF INCOME EARNERS ☐

NUMBER OF WOMEN, 15-40 YEARS OLD **(Encircle the number.)** ☐

NUMBER OF MARRIED WOMEN, 15-40 YEARS OLD **(Cross out the number.)** ☐

NUMBER OF CHILDREN, 0-59 months old **(Check the number.)**

0-11 months old ☐
12-23 months old ☐
24-59 months old ☐

10 **Unsay kinadak-ang tinubdan sa makita nga salapi sa inyong panimalay?** *What is the major source of income of your household?*	☐☐
11 **Tipo sa balay. (TYPE OF HOUSE.)** **(PROBE TO MAKE SURE THAT THIS IS THE HOUSE OF THE RESPONDENT.)**	☐☐ ☐ *1-Concrete/semi-concrete/bungalow* ☐ *2-Wood/Coco lumber/plywood, etc* ☐ *3-Kubo/nipa type sawali/ kawayan/ kugon/ palapa/anahaw/ buli/niyog/etc* ☐ *4-Others(specify)*_____
12 **Aduna bay koryente ang inyong balay?** *Is there electricity in your house?*	☐ *1- Yes (include houses with generators/batteries)* ☐ ☐ *0- None*
13a **Naa ba mo'y inyong kaugalingong radyo o telebisyon?** *Do you own a radio or television?*	☐ *0-None* ☐ *1-radio only* ☐ ☐ *2-television only* ☐ *3-both radio and television*
13b **Asa nimyo kuhaa ang tubig nimyong ilimnon?** *Where do you get drinkang water?* **IF CLOSED WELL, ASK DEPTH IN METERS.** **NOTE IF COMMUNAL OR PRIVATELY-OWNED.**	☐*1-water tap or waterworks system* ☐*2-closed well (e g , Jetmatic, water pump, etc)* *depth in meters* _____ ☐*3-open well* ☐*4-spring, covered* ☐*5-spring, not covered* ☐*others (specify)* _____ ☐***communal*** ☐***privately-owned***
13c **Asa nimyo ilabay ang inyong basura?** *Where do you throw your garbage?*	☐*1-open pit* ☐*2-closed pit* ☐*3-anywhere* ☐*4-burning* ☐*5-garbage collector, municipal government* ☐*6-garbage collector, private* ☐*others (specify)*
13d. **TYPE OF TOILET (OBSERVATION).** **IF NO TOILET, CHECK 'NO TOILET' AND INDICATE THE TYPE OF TOILET THE RESPONDENT USES IN 'OTHERS'.**	☐*1-flush toilet* ☐*2-water-sealed toilet* ☐*3-antipolo or pit system* ☐*4-no toilet* ☐ *others (specify)* _____

[illegible] BEEN (0-59 MONTHS OLD).
From the household roster select one sample mother from all mothers of 0-59 months old children.

NAME OF MOTHER	_____
14 **Nakadungog ka na ba niining Vitamin A?** *Have you heard of Vit A?*	☐ *0- No,* **GO TO Q20** ☐ *1- Yes* ☐
15 **Diin ka man nakadungog o masayud sa Vitamin A?** *Where did you hear/learn of Vit A* **(CHECK ALL THAT APPLY.)**	☐ *1-Health Center/Midwife* ☐ ☐ *2-ASAP* ☐ *3- mother's class* ☐ *others (specify)* _____ ☐ *9-N/A*
16 **Unsay mahimo sa Vitamin A sa imong panglawas?** *What can Vit A do to your body?* **(CHECK ALL THAT APPLY)**	☐ *0- I do not know* ☐ ☐ *1- good for the skin* ☐ *2- generally good for the body/good health (PROBE What good does it do to your body?)* ☐ *3- good for the eyes* ☐ *4-improves appetite* ☐ *others (specify)* _____ ☐ *9-N/A*
17 **Unsay kasagarang mahitabo sa tawo nga dili mo tumar ug igong Vitamin A?** *What can possibly happen to a person who doesn't have adequate intakeof Vit A?* **(CHECK ALL THAT APPLY)**	☐ ☐ *0- I do not know* ☐ *1- nightblindness/damage to vision/impaired eyesight* ☐ *2- less resistance to infection* ☐ *3- malnourished/retarded growth* ☐ *4- general body weakness* ☐ *5- skin irritations/infections* ☐ *6- decreases appetite* ☐ *others (specify)* _____ ☐ *9-N/A*
18 **Unsa ang mga maayong tinubdan nga pagkaon sa Vitamin A?** *What foods are the best sources of Vit A?* **(CHECK ALL THAT APPLY. IF RESPONDENT ANSWERS "VEGETABLES', PROBE FOR THE KIND OF VEGETABLE TO DETERMINE IF IT IS RICH IN VITAMIN A.)**	☐ *1-green leafy vegetables like malunggay, camote tops, gabi leaves, petsay, saluyot, alugbati, kangkong* ☐ ☐ *2-yellow vegetables like carrots, squash* ☐ *3-yellow fruits like ripe mango, papaya* ☐ *4-liver* ☐ *5-eggs* ☐ *6-milk* ☐ *7-crab meat* ☐ *8-cheese* ☐ *9-dilis* ☐ *others (specify)* _____ ☐ *99-N/A*

19 **Ipakita mo ba nako kon hain nimi ang Vitamin A?** *Can you show me which of these is Vit A?*	☐ *0- Don't know VAC* ☐ *1- Know VAC* ☐ *9-N/A*
20 **Nakadungog ka na ba nining Iron?** *Have you heard of Iron?* **(INFORM THE RESPONDENT THAT IRON IS THE MINERAL IN FERROUS SULFATE TABLETS.)**	☐ *0-No,* **GO TO Q25** ☐ *1-Yes*
21 **Diin ka makadungog ug masayud bahin sa iron?** *Where did you hear/learn of Iron?* **(CHECK ALL THAT APPLY)**	☐ *1-Health Center/Midwife* ☐ *2-ASAP* ☐ *3-mother's class* ☐ *others (specify)* _____ ☐ *9-N/A*
22 **Unsay mahimo sa iron sa imong la-was?** *What can iron do to your body?* **(CHECK ALL THAT APPLY)**	☐ *0- Don't know* ☐ *1– formation of healthy blood* ☐ *2-production of antibody* ☐ *3-conversion of carotene into Vit A* ☐ *others (specify)*_____ ☐ *9-N/A*
23 **Unsay kasagarang mahitabo sa tawo nga way igong iron sa lawas?** *What can possibly happen to a person who doesn't have adequate intake of Iron?* **(CHECK ALL THAT APPLY)**	☐ *0- Don't know* ☐ *1- weakness* ☐ *2- insomnia* ☐ *3- easily become tired* ☐ *others (specify)*_____ ☐ *9-N/A*
24 **Unsa ang mga pagkaon nga maayong tinubdan sa iron?** *What foods are the best sources of Iron?* **(CHECK ALL THAT APPLY)**	☐ *1-green leafy vegetables like malung-gay, camote tops, gabi leaves, petsay, saluyot, alugbati, kangkong* ☐ *2-yellow vegetables like carrots, squash* ☐ *3-yellow fruits like ripe mango, papaya* ☐ *4- liver* ☐ *5-internal organs* ☐ *6- tahong* ☐ *7-seaweeds* ☐ *8-alamang* ☐ *9-dried dilis* ☐ *10- tulingan* ☐ others (specify)_____ ☐ *99-N/A*
25 **Nakadungog kana ba nining iodine?** *Have you heard of Iodine?*	☐ *0- No,* **GO TO Q30** ☐ 1- *Yes*

26 **Diin ka makadungog o masayud ba-hin sa iodine?** *Where did you hear/learn of Iodine?* **(CHECK ALL THAT APPLY)**	☐ *1-Health Center/Midwife* ☐ *2-ASAP* ☐ *3-mother's class* ☐ *others (specify)* _____ ☐ *9-N/A*
27 **Unsay mahimo sa iodine sa imong la-was?** *What can iodine do to your body?* **(CHECK ALL THAT APPLY)**	☐ *1-regulate utilization of food for energy* ☐ *2- speed up the growth rate of children* ☐ *3- stimulate the body's mental processes* ☐ *4- increase the growth of bones and tis-sues* ☐ *9-N/A*
28 **Unsay mahitabo sa tawo nga way igong iodine?** *What can possibly happen to a person who doesn't have adequate intake of Iodine?*	☐*1-goiter* ☐*others (specify)*_____ ☐ *9-N/A*
29 **Unsa ang mga pagkaon nga mga maayong tinubdan sa iodine?** *What foods are the best sources of iodine?* **(CHECK ALL THAT APPLY)**	☐ *1-dilis* ☐ *2-alamang* ☐ *3-tahong* ☐ *4-seashells* ☐ *5-kuhol* ☐ *6-pusit* ☐ *7-talaba* ☐ *8-halaan* ☐ *9-hipon* ☐ *10- lato* ☐ *11-salt fortified with iodine* ☐ otherS (specify) _____ ☐ *99-N/A*
30 **May tinubdan ba sa asin nga may iodine sa inyong katilingban?** *Do you have a supply of iodinated salt in the community?*	☐ *1- None,* **GO TO Q33** ☐ *2-Yes*
31 **Unsa ang mga tinubdan sa supply sa asin nga may iodine?** *Where can you get or buy this iodinated salt?* **(CHECK ALL THAT APPLY)**	☐ *1-market* ☐ *2-grocery* ☐ *3- sari-sari store* ☐ *others (specify)* _____ ☐ *9-N/A*
32 **Kanus-a ang katapusan mong pag-palit ug iodinated salt sa naasoyng mga tinubdan?** *When did you last purchased iodinated salt from these sources?*	____*days/months ago* ☐ *99-N/A*

33 **May iodinated salt ka pa ba sa imong balay?** *Do you still have iodized/iodinated salt in the house?* **(IF YES, GET A SAMPLE OF SALT AND TEST USING THE UNICEF SALT TESTING KIT)**	☐ 0- *None,* **GO TO Q35** ☐ 1- *Yes,* **BRAND**_____ ☐ *9-N/A* **AS TESTED:** ☐ 0-iodized salt is not present in the household ☐ 1-iodized salt present in the household ☐ *9-N/A*
34 **Makapila ka mo gamit sa iodinated salt sa pagpeparar sa pagkaon sa miaging semana?** *How often do you use iodinated salt in the preparation of food in the past week?*	_____ *no. of days in the past week* ☐ *9-N/A*
35 **Nakadawat ka bag kapsula sa iodized oil sa miaging 12 ka buwan?** *Have you reeceived iodized oil capsule during the past 12 months?*	☐ 0- *No,* **GO TO Q37** ☐ 1- *Yes*
36 **Kanus-a ka makadawat ug iodized oil capsule?** *When is the last time you received iodized oil capsule?*	_____ *months ago* **(IF MORE THAN 12 MONTHS AGO, GO BACK AND CORRECT Q 35 TO 'NO'.)** ☐ *9-N/A*
37 **Gawas sa gihisgotan sa itaas unsa pay ubang tinubdan alang sa maayong panglawas ug nutrisyon ang nahibaw-an mo?** *Aside from those already mentioned above, what are your other sources of health and nutrition information?*	☐ 1- *radio/TV* ☐ 2- *print media* ☐ *others (specify)* _____
38 **Nakatungha ka ba sa mga klase nga gihimo alang sa mga inahan sa miaging 12 ka buwan?** *Have you attended mother's classes during the past 12months?*	☐ 0- *No* **GO TO Q41** ☐ 1- *Yes*
39 **Pila ka higayon nga nakatungha ka sa maong klase sa miaging 12 ka buwan?** *How many times have you attended mother's classes during the past 12months?*	_____ ☐ *9-N/A*

40 **Unsa ang mga hilisgotan nga inyong gituki sa imong pagtambong sa maong klase sa mga inahan?** *What are the topics that were discussed at the times that you attended mother's classes?*	TOPICS _____ _ _____ _ _____ _ _____ _ ☐ *9-N/A*
41 **Aduna na bay taga-RHU nga nakabisita sa imong panimalay nga mihatag sa ilang mga tambag sa miaging 12 ka buwan?** *Has any of the RHU health personnel visited your home for health counselling during the past 12 months?*	☐ 0- *No,* **GO TO Q43** ☐ 1- *Yes*
42 **Kinsay miduaw sa imong panimalay sa miaging 12 ka buwan? Makapila siya mobisita kanimo?** *Who visited your home during the past 12 months? How often has he/she visited you?* **(CHECK ALL THAT APPLY AND INDICATE THE NUMBER OF VISITS OF EACH PERSONNEL)**	**HEALTH PERSONNEL** / **Pirang Beses FREQUENCY** ☐ Midwife _____ ☐ Physician/Nurse _____ ☐ BHW _____ ☐ *9-N/A*
43 **May garden ka ba sa imong panimalay?** *In the past 12 months, did you have a home garden?* **(INCLUDE ALSO VEGETABLE GARDENS NOT FOUND IN THE RESIDENTIAL LOT)**	☐ 0- *No,* **GO TO Q46** ☐ 1- *Yes*
44 **Mga pila kaha ka buwan sa miaging 12 ka buwan nga nakabaton kana ug garden sa inyong panimalay?** *How many months during thepast 12 months did you have a home garden?*	_____ *months* ☐ *9-N/A*

45 **Unsa ang kasagarang mga tanum nga imong gitanum sa imong garden?** *What are the types of plants that you usually had in your garden?*	☐ *Go Foods (specify)* _____ _____ ☐ *Glow Foods(specify)* _____ _____ ☐ *Grow Foods(specify)* _____ _____ ☐ *9-N/A*
46 **May garden ba usab ang inyong katilingban/community?** *In the past 12 months, did you have a community garden?*	☐ **0-** *No,* **GO TO Q49** ☐ **1-** *Yes*
47 **Mga pila kaha ka buwan sa miaging 12 ka buwan nga nakabaton ug garden ang inyong katilingban?** *How many months during the past 12 months did you have a community garden?*	_____**Bulan** *(months)* ☐ *9-N/A*
48 **Unsa ang matang sa mga tanum nga gipananum sa inyong community garden?** *What are the types of plants that you had in your community garden?* **(RECORD ALL ANSWERS VERBATIM.)**	☐ *Go Foods (specify)* _____ _____ ☐ *Glow Foods(specify)* _____ _____ ☐ *Grow Foods(specify)* _____ _____ ☐ *9-N/A*
49 **Unsay gilay-on sa imong balay ngadto sa Health Center?** *How far is your house to the health center?* **(DO NOT ASK RESPONDENT ANY MORE. ASK RHM, BGY. CAPT., OR KAGAWAD.)**	_____ *Kilometers*
50. **Unsaon nimo kasagaran moadto sa health center?** *How do you usually go to the health center?*	☐ **1- by hiking/walking** ☐ **2 - by public transportation, specify the type** _____

MODULE 5: INTERVIEW SCHEDULE FOR INFANTS (0-11 MONTH OLD)
(FROM Q9, DETERMINE THE NAME OF THE CHILDREN WHO ARE LESS THAN 12 MONTHS OLD IN THE HOUSEHOLD. USE THEM AS THE REFERENCE CHILDREN (RC) FOR THIS SECTION. YOU MAY HAVE MORE THAN ONE RESPONDENT MOTHER IF YOU HAVE MORE THAN ONE INFANT IN THE HOUSEHOLD.)

	CHILD 1	CHILD 2
51 NAME OF THE MOTHER NAME OF THE CHILD	_____ _____	_____ _____
52 Sa dihang nagsabak ka ___(RC) naka pahilng ka ba'g doktor alang sa prenatal? *When you were pregnant with ____(RC), did you go for prenatal check-up?*	☐ 0-*No* ☐ 1-*Yes*, **GOTO Q54**	☐ 0-*No* ☐ 1-*Yes*, **GOTO Q54**
53 Ngano wa man? *Why not?* **(CHECK ALL THAT APPLY)** **GOTO Q58**	☐ 1- *Mother is lazy* ☐ 2-*fear of results of check-up* ☐ 3- *lack of money* ☐ *others (specify)* _____ ☐ *9-N/A*	☐ 1- *Mother is lazy* ☐ 2-*fear of results of check-up* ☐ 3- *lack of money* ☐ *others (specify)* _____ ☐ *9-N/A*
54 Kon uyon, unsay mga kaayohan nga makuha sa magpa-prenatal check-up? *If Yes, what are the benefits of going for prenatal check-up?* **(CHECK ALL THAT APPLY)**	☐ 1- *to ensure the condition of the mother* ☐ 2- *to ensure the condition of the baby* ☐ 3- *fear that something may happen to the child* ☐ *others (specify)* _____ ☐ *9-N/A*	☐ 1- *to ensure the condition of the mother* ☐ 2- *to ensure the condition of the baby* ☐ 3- *fear that something may happen to the child* ☐ *others (specify)* _____ ☐ *9-N/A*
55 Asa ka pakonsulta alang sa prenatal? *If yes where/to whom did you go for prenatal check-up?* **(CHECK ALL THAT APPLY)**	☐ 1- *Health Center* ☐ 2- *Midwife* ☐ 3- *Private Clinic* ☐ *others (specify)* _____ ☐ *9-N/A*	☐ 1- *Health Center* ☐ 2- *Midwife* ☐ 3- *Private Clinic* ☐ *others (specify)* _____ ☐ *9-N/A*
56 Pila ka buwan ang imong gisabak nga anaay ka nang magpa-prental? *At what age of your pregnancy did you start to go for prenatal c[illegible]?*	*month of pregnancy* _____ ☐ *9-N/A*	*month of pregnancy* _____ ☐ *9-N/A*

51 NAME OF THE MOTHER NAME OF THE CHILD	**CHILD 1** _____ _____	**CHILD 2** _____ _____
57 **Makapila ka magpa-prenatal** **--sa primerong tulo ka buwan sukad sa imong pagsabak?** **--sa ikaduhang tulo ka buwan sukad sa imong pagsabak?** **--sa itulong tulo ka buwan sukad sa imong pagsabak?** *How many times have you gone for prenatal check-up per trimester of your pregnancy?*	_____ *times for the first trimester* _____*times for the second trimester* _____ *times for the third trimester* ☐ *9-N/A* _____ *total no of prenatal check-ups*	_____ *times for the first trimester* _____*times for the second trimester* _____ *times for the third trimester* ☐ *9-N/A* _____ *total no of prenatal check-ups*
58a **Ka pila nga beses ka gitagaan ug TT injection sa niadtong imong pagmagdos kang ____(RC)?** *How many times were you given given TT shots when you were pregnant with _____ (RC)?*	*no of times during pregnancy* _____ ☐	*no of times during pregnancy* _____ ☐
58b **Ka pila nga beses na ka gitagaan ug TT injection gikan sa niadtong kinse anyos pa ka?** *How many times were you given TT shots since you were 15 years old?*	*no of times since 15 years old* _____	*no of times since 15 years old* _____
59 **May iron supplements ka ba nga gitumar sukad sa imong pagmabdos?** *Did you take iron supplements during your pregnancy*	☐ **0-** *No,* **GOTO Q63** ☐ **1-** *Yes*	☐ **0-** *No,* **GOTO Q63** ☐ **1-** *Yes*
60 **Kon duna, ikapilang buwan sa imong pagmabdos nga nagsugod kang tumar ug iron supplements?** *If yes, during which month of pregnancy did you first begin to take iron supplements?*	_____ *month of pregnancy* ☐ *9-N/A*	_____ *month of pregnancy* ☐ *9-N/A*

51 NAME OF THE MOTHER NAME OF THE CHILD	CHILD 1 _____ _____	CHILD 2 _____ _____
61 **Unsa ka-sobsob ang imong pagtumar ug iron supplements sulod sa imong pagsabak?** *How often have you been takang your iron supplements during your pregnancy?* **IF IRREGULAR, ASK THE NUMBER OF DAYS IN A WEEK THAT THE IRON SUPPLEMENTS ARE TAKEN.**	☐ *daily* ☐ *no of days a week, if irregular* _____	☐ *daily* *no of days a week, if irregular* _____
62 **Pila ka buwan nga nagtumar ka ug iron supplements sulod sa tibuok nga mga buwan sa imong pagmabdos?** *How many months have you been takang iron supplements during the whole period of your pregnancy?*	_____ *no of months during pregnancy* ☐	_____ *no of months during pregnancy*

BLOCK D: INFANT FEEDING PRACTICES		
63 **Unsay gipasuso mo kang ___(RC) sa wala pay upat ka buwan ang masuso?** *What did you feed ___ (RC) when he/she was less than four months old?*	☐ 1- *breastmilk only* ☐ ☐ 2- *breastmilk plus other milk or liquids* **IF ANSWER IS '1' OR '2', GO TO Q66** ☐ 3- *other milk orother liquids only*	☐ 1- *breastmilk only* ☐ ☐ 2- *breastmilk plus other milk or liquids* **IF ANSWER IS '1' OR '2', GO TO Q66** ☐ 3- *other milk orother liquids only*
IF RC IS BEING GIVEN MILK OR LIQUIDS OTHER THAN BREASTMILK		
64 **Nagpasuso mo ba sa gatas sa mahan si ___(RC)?** *Did you ever breastfeed (RC)?*	☐ 0- *No,* ☐ ☐ 1- *Yes,* **GOTO Q66**	☐ 0- *No,* ☐ 1- *Yes,* **GOTO Q66**
65 **Unsay hinungdan?** *Why not?* **(CHECK ALL THAT APPLY)**	☐ 1- *Mother has no milk/not enough* ☐ ☐ 2- *Mother's milk not suitable for brestfeeding/mother is sickly/ breast is defectve* ☐ 3- *Workang mother/always out* ☐ 4- *Husbands/relatives want it* ☐ 5- *More convenient for mother* ☐ *others (specify)* _____ ☐ 9 *N/A*	☐ 1- *Mother has no milk/not enough* ☐ 2- *Mother's milk not suitable for brestfeeding/mother is sickly/ breast is defectve* ☐ 3- *Workang mother/always out* ☐ 4- *Husbands/relatives want it* ☐ 5- *More convenient for mother* ☐ *others (specify)* _____ ☐ 9 *N/*

51 NAME OF THE MOTHER NAME OF THE CHILD	_____ _____	_____ _____
66a **Pilay panuigon sa bata ___(RC) sa dihang gisugdan mo paghatag ug gatas nga dili sa iyang inahan?** *(How old was ___ (RC) when you started giving him/her milk other than breastmilk?)*	☐ *When RC was born* ☐ *When RC was ____months old* ☐ *Never given other milk*	☐ *When RC was born* ☐ *When RC was ____months old* ☐ *Never given other milk*
66b **Pilay panuigon sa bata ___(RC) sa dihang gisugdan mo sa paghatag mo'g likido sama sa am, juice ug uban pa?** (*How old was ___ (RC) when you started giving him other liquids (like am, juice, etc)*	☐ *When RC was born* ☐ *When RC was ____months old)* ☐ *Not yet initiated*	☐ *When RC was born* ☐ *When RC was ____months old)* ☐ *Not yet initiated*
67 **Ngano hatagan ang _____ (RC) ug gatas o ubang liquids dugang sa gatas sa inahan?** *Why are you giving ___(RC) milk or other liquids in addition to your breastmilk?* **(CHECK ALL THAT APPLY)**	☐ *1-It is good for the baby* ☐ *2-Easier/more convenient ot mother* ☐ *3-Mother has no milk/milk is not enough* ☐ *4-Mother's milk not suitable for brestfeeding/ mother is sickly/breast is defective* ☐ *5-Husbands/relatives want it* ☐ *6-Working mother/always out* ☐ *7-mother is pregnant* ☐ *8-mother is taking medicine* ☐ *others (specify)*	☐ *1-It is good for the baby* ☐ *2-Easier/more convenient ot mother* ☐ *3-Mother has no milk/milk is not enough* ☐ *4-Mother's milk not suitable for brestfeeding/ mother is sickly/breast is defective* ☐ *5-Husbands/relatives want it* ☐ *6-Working mother/always out* ☐ *7-mother is pregnant* ☐ *8-mother is taking medicine* ☐ *others (specify)*
IF RC IS BEING GIVEN BREASTMILK		
68a. **Ngano gi-patotoy nimo si _____(RC)?** *Why did you breastfeed _____ (RC)?* **(CHECK ALL THAT APPLY)**	☐ *1-It is good for the baby/baby is healthier* ☐ *2-It has vitamins/antibodies/ prevents baby from getting sick* ☐ *3-Easier/more convenient for mothers* ☐ *4-Husbands/relatives/friend want it* ☐ *5-canned milk is expensive* ☐ *Others (specify)* _____	☐ *1-It is good for the baby/baby is healthier* ☐ *2-It has vitamins/antibodies/ prevents baby from getting sick* ☐ *3-Easier/more convenient for mothers* ☐ *4-Husbands/relatives/friend want it* ☐ *5-canned milk is expensive* ☐ *Others (specify)* _____

	CHILD 1	CHILD 2
51 NAME OF THE MOTHER NAME OF THE CHILD	_____ _____	_____ _____
68b **Pila ka oras paghuman sa pagkaanak ni___(RC), nadtong gi-sugdan nimo siya ug hatag ug gatas nga gikan sa totoy?** *How many hours after the birth of _____ (RC) did you start giving him/her breastmilk?*	_____ *hours after birth*	_____ *hours after birth*
68c **Gi-tagaan ba nimo si ____ sa unang dalag nga gatas nga gikan sa totoy (colostrum)?** *Did you give him/her the colostrum (the yellowish milk expressed from the mother immediately after delivery)?*	☐ **0-***NO* ☐ **1-***YES*	☐ **0-***NO* ☐ **1-***YES*
69 **Unsa ang gidugayon nga gipasuso mo ang ____(RC) sa gatas sa inahan?** *How long did you breastfeed ___(RC)?*	•*mother stopped breastfeeding when RC was _____ months old,* **GO TO Q71** ☐ *still breastfeeding,* **GO TO Q 70** ☐ *N/A*	☐ •*mother stopped breastfeeding when RC was _____ months old,* **GO TO Q71** ☐ *still breastfeeding,* **GO TO Q 70** ☐ *N/A*
70 **Mangtud sa unsang panuigon sa (sa RC) nga giplanohan mo siya'ng pasusuon sa gatas sa inahan?** *Until what age (of RC) do you plan to give breastmilk?* **(PROBE FOR AGE OF CHILD IN MONTHS. IF RESPONDENT ANSWERS 'until the child wants', ASK: IN YOUR BEST OPINION, WHAT IS THE BEST TIME TO STOP BREASTFEEDING THE CHILD.)**	•*until RC is ___ months old.* ☐ *until the child wants* *the best time to stop breastfeeding the child is when he/she is _____ months old*	☐ •*until RC is ___ months old.* ☐ *until the child wants* *the best time to stop breastfeeding the child is when he/she is _____ months old*
WEANING PRACTICES		
71 **Gisugdan mo na ba paghatag ang bata ___(RC) ug pagkaon nga humok gawas sa gatas sa inahan o' ubang gatas o' likido?** *Have you started giving ___ RC any food/semi solid food other than breastmilk/ other milk or liquid?*	☐*0-No,* **GO TO Q78** ☐ *1-Yes*	☐ ☐*0-No,* **GO TO Q78** ☐ *1-Yes*

51 NAME OF THE MOTHER NAME OF THE CHILD	**CHILD 1** _____ _____	**CHILD 2** _____ _____
72 **Pilay ıyang edad sa dıhang gısugdan mo paghatag ug makaon gawas sa gatas sa ınahan o' ubang gatas o lıq-uıd?** *At what age did you start gıvıng hım food other than breastmılk/other ılk or lıquıd?*	*When RC was ___months old*	☐ *When RC was ___months old*
73 **Nganong sa ingon man nıining pangidaron niya?** *Why at thıs age?*		
74 **Unsang tıpo sa pagkaon gawas sa gatas sa ınahan o' ubang gatas o' lıkıdo nga gı-kahatag mo nıya?** *What type of foods other than breastmılk or other mılk or lıq-uıd have you gıven hım?*	☐*1-Homemade foods lıke lugaw, mashed potato* ☐*2-Others(specıfy)*	☐*1-Homemade foods lıke lugaw, mashed potato* ☐*2-Others(specıfy)*
75 **Kon lınugaw, sagolan mo ba kını ug uban pa una ıpakaon sa bata?** *If lugaw, Do you mıx somethıng wıth lugaw before you serve to your chıld?*	☐ *0-No* ☐ *1-Yes*	☐ ☐ *0-No* ☐ *1-Yes*
76 **Unsay isagol mo sa linu-gaw?** *What do you mıx wıth the lugaw?* **(RECORD ANSWERS VER-BATIM.)**	☐ *Glow food, (specıfy)* _____ _____ ☐ *Grow food(specıfy)* _____ _____ ☐ *Go food (specıfy)* _____	☐ ☐ *Glow food, (specıfy)* _____ _____ ☐ *Grow food(specıfy)* _____ _____ ☐ *Go food (specıfy)* _____
77 **Sa mıagıng 24 oras kapıla nımo hatagı ang ____(RC) sa mga pagkaon alang sa paglu-tas?** *In the past 24 hours how many tımes have you gıven ___(RC), thıs weanıng mıx?*	☐ _____*tımes,* **GO TO 79a**	☐ _____*tımes,* **GO TO 79a**

51 NAME OF THE MOTHER NAME OF THE CHILD	**CHILD 1** _____ _____	**CHILD 2** _____ _____
78 **Sa unsang panuigon niya nga imong giplanohan sa paghatag ug pagkaon gawas sa gatas sa inahan o' ubang gatas ug likido?** *At what age do you plan to give him food other than breastmilk/other milk or liquid?*	☐☐ *When RC is _____ months old.*	☐☐ *When RC is _____ months old.*

ASK OF CHILDREN 12-23 MONTHS OLD		
NAME OF CHILD (12-23 MONTHS OLD)		
79a **Gipatotoy nimo si ___(RC)?** *Did you breastfeed ____(RC)?*	☐ 0-*No,* **GO TO FOOD FREQUENCY FORM** ☐ 1-*Yes* ☐	☐ 0-*No,* **GO TO FOOD FREQUENCY FORM** ☐ 1-*Yes* ☐
79b **Kanus-a nimo gi-undang ug papatotoy si ____(RC)?** *When did you stop breastfeeding him/her?*	*when child was _____ months old* ☐☐	*when child was _____ months old* ☐☐

BLOCK E: ANTHROPOMETRIC AND PHYSICAL EXAM FOR 0-24 MONTH OLD CHILDREN AND 15-40 YEAR OLD WOMEN

Physical Examiner _____	Province _____ ☐☐
Date of P E _____	Municipality _____ ☐☐
Time Started _____	RHM _____ ☐☐
Time Ended. _____	Barangay _____
	Household No ☐☐☐

Physical Exam for Women 15-40 years old

	Woman 1 (youngest)	Woman 2	Woman 3	Woman 4	Woman 5 (oldest)
1. Name of Woman					
2. Birth-date					
3. Marital Status	☐ *single/ unwed* ☐ *married* ☐ *separated* ☐ *widowed*	☐ *single/ unwed* ☐ *married* ☐ *separated* ☐ *widowed*	☐ *single/ unwed* ☐ *married* ☐ *separated* ☐ *widowed*	☐ *single/ unwed* ☐ *married* ☐ *separated* ☐ *widowed*	☐ *single/ unwed* ☐ *married* ☐ *separated* ☐ *widowed*
4. Physio-logical Status	☐ *pregnant,* ____*months* ☐ *lactating*	☐ *pregnant,* ____*months* ☐ *lactating*	☐ *pregnant,* ____*months* ☐ *lactating*	☐ *pregnant,* ____*months* ☐ *lactating*	☐ *pregnant,* ____*months* ☐ *lactating*
5. Iodine Deficiency Goiter Status (Examine the woman's thyroid and record her goiter grading)	☐ None ☐ Palpable goiter (felt but not seen) ☐ Goiter visible ☐ Nodular	☐ None ☐ Palpable goiter (felt but not seen) ☐ Goiter visible ☐ Nodular	☐ None ☐ Palpable goiter (felt but not seen) ☐ Goiter visible ☐ Nodular	☐ None ☐ Palpable goiter (felt but not seen) ☐ Goiter visible ☐ Nodular	☐ None ☐ Palpable goiter (felt but not seen) ☐ Goiter visible ☐ Nodular
6. Blood extraction for HB status	☐ extracted ☐ not extracted **GO TO Q8** ☐ not sampled **GO TO Q8**	☐ extracted ☐ not extracted **GO TO Q8** ☐ not sampled **GO TO Q8**	☐ extracted ☐ not extracted **GO TO Q8** ☐ not sampled **GO TO Q8**	☐ extracted ☐ not extracted **GO TO Q8** ☐ not sampled **GO TO Q8**	☐ extracted ☐ not extracted **GO TO Q8** ☐ not sampled **GO TO Q8**
7. Hb Status	☐☐ ☐ g/l	☐☐ ☐ g/l	☐☐ ☐ g/l	☐☐ ☐ g/l	☐☐ ☐ g/l

Physical Exam for Children (0-59 months)				
	CHILD 1 (youngest)	**CHILD 2**	**CHILD 3**	**CHILD 4 (oldest)**
8 Name of Child				
9 Sex	☐ 1-*Male* ☐ 2-*Female*	☐ 1-*Male* ☐ 2-*Female*	☐ 1-*Male* ☐ 2-*Female*	☐ 1-*Male* ☐ 2-*Female*
10 Birthdate				
11 Age(in months)	☐☐	☐☐	☐☐	☐☐
2. Sa inagi nga sayo katuig, natimbang ini si _____? *Has this child been weighed in the past 12 months?*	☐ 0-*No* ☐ 1-*Yes*	☐ 0-*No* ☐ 1-*Yes*	☐ 0-*No* ☐ 1-*Yes*	☐ 0-*No* ☐ 1-*Yes*
13. Makapira man si _____ timbanga sa inagi nga sayo ka tuig? *How many times was the child weighed in the past 12 months?*	☐	☐	☐	☐
14. Nano man an maupay nga benepisyo sa pag-patimbang? *What are the benefits of weighing?*	☐1-*to know if weight of the child is increasing or not/ to know if the child is growing* ☐2-*advised by the health worker* ☐3-*to request fofr additional supplements*			
15. Nano kay waray katimbang si _____? *Why was the child not weighed?*	☐ 1-*child is scared* ☐ 2-*it is not needed, child is already big* ☐ 3-*mother is busy*	☐ 1-*child is scared* ☐ 2-*it is not needed, child is already big* ☐ 3-*mother is busy*	☐ 1-*child is scared* ☐ 2-*it is not needed, child is already big* ☐ 3-*mother is busy*	☐ 1-*child is scared* ☐ 2-*it is not needed, child is already big* ☐ 3-*mother is busy*
16. Mayaon si _____ sin Under-Five yellow card? *Does the child have an Under five yellow card?*	☐ 0-*No* ☐ 1-*Yes*	☐ 0-*No* ☐ 1-*Yes*	☐ 0-*No* ☐ 1-*Yes*	☐ 0-*No* ☐ 1-*Yes*

CHILD SURVIVAL PROJECT ENDLINE SURVEY
LGU CAPABILITY BUILDING INTERVIEW GUIDE

Target Respondents
PNC PNAO
PIA- special focus
PHO- technical rep for nutrition
PPDO- rep to PTF

MNC MNAO ABC President
RHU tech rep (PHN)
MPDC
Kagawad for health

Interviewer
Introduction *I am (interviewer's name) and am connected with a team whose purpose is to assess the extent to which your nutrition program has changed over the past two years In particular, I am interested in knowing your opinion about capability of the municipal/provincial nutrition committee in terms of assessing, planning, implementing and monitoring the nutrition program in (name of municipality/province) You were selected as a representative because of your knowledge and involvement with this municipality's nutrition program*

Province	Municipality
Name of respondent	Interviewer
Designation	Date of Interview
Please Check ___representing PNC	___representing MNC
Questions	Record responses here
1 What agency do you represent?	_____
2 In what way do you assist this (municipality's/province's) nutrition program?	_____ _____ _____
3 How many years have you been involved with the nutrition program?	_____

Interviewer I will make several statements and for each statement I would like you to rank the statement comparing to the situation before 1995 with the present situation Ranking would be 1) no opinion/not aware, 2) least given attention or none at all, 3) somewhat/sometimes given attention, 4) given attention, 5) practiced/given most attention (best)

There are no right or wrong answers I am simply interested in knowing your honest opinion

The first area I will ask your opinion about is "assessing your local nutrition situation" compared to two years ago

	1	2	3	4	5	Remarks
Assessment						
1 Makes use of local data to assess local nutritional problems	1	2	3	4		
2 Has understanding of the strengths and weaknesses of different nutrition data sources to assess nutritional problems	1	2	3	4		
3 Involves key agencies in the assessment of the local nutrition situation	1	2	3	4		
4 Has an idea of the elements of an effective nutrition program	1	2	3	4		
5 Have an understanding about the nutrition program	1	2	3	4		
Planning						
6 Base our plans on an analysis of current nutrition situation	1	2	3	4		
7 Involve people in the development of the local nutrition plan	1	2	3	4		
8 View plans from different agencies as an integrated part of the entire nutrition plan	1	2	3	4		
9 Collate plans from different agencies into one integrated plan	1	2	3	4		
10 Submit nutrition plan as part of the provincial/municipal development plan	1	2	3	4		
11 Submit plan to LGU for budget allocation	1	2	3	4		
12 Use criteria for prioritizing areas for intervention	1	2	3	4		
13 Arrive at a consensus regarding priority nutrition interventions and barangays	1	2	3	4		

Interventions/Implementation						
14 Implemented new nutrition interventions what are they? • _____ • _____ • _____ • _____	1	2	3	4		
15 Interventions relevant to the priority nutrition problems	1	2	3	4		
16 Implementing interventions in priority *barangays*	1	2	3	4		
17 Aware of fortified products	1	2	3	4		
18 Aware of ASAP	1	2	3	4		
Monitoring/Supervision						
19 Use of monitoring checklists for nutrition program	1	2	3	4		
20 Understanding of nutrition indicators	1	2	3	4		
21 Analysis of monitoring data	1	2	3	4		
22 Frequent conduct of monitoring nutrition interventions	1	2	3	4		
23 Sharing/discussion of monitoring findings/results	1	2	3	4		
24 Actions taken based on monitoring findings	1	2	3	4		
25 System of conducting monitoring	1	2	3	4		
Functional Municipal/ Provincial Nutrition Committee						
26 Committee Members have a clear vision of the goals of the Municipal/Provincial Nutrition Plan	1	2	3	4		
27 Familiarity with members roles and functions of other MNC/PNC members	1	2	3	4		
28 Aware of nutrition policies and programs	1	2	3	4		
29 Nutrition resolutions passed	1	2	3	4		

what are they? (e g , iodized salt, BNC, weighing posts) • _____ • _____ • _____ • _____						
30 BNS/BHWs organized/ recognized as part of the health delivery system	1	2	3	4		
31 Honoraria to BNS/BHWs	1	2	3	4		
32 Fund allocation for weighing scales/weighing post	1	2	3	4		
33 Investment in nutrition program by LGU	1	2	3	4		
34 Money provided to cover training of BHWs/RHMs	1	2	3	4		

Others/ Anecdotal testimonies

If assistance extended for another two years, how should be done differently?

Appendix III
Curriculum vitae of final evaluation team leader

PHILIP WJ HARVEY MPH, PhD
107 Woodcrest Drive
Chapel Hill NC 27516
tel/fax (919) 968 0392
e-mail pharvey2@bellsouth net

March, 1998

EDUCATION

PhD 1987, Nutrition, Cornell University, Ithaca, NY, USA Major, international nutrition, minors, epidemiology and parasitology Research investigated the relationship between iron status and malarial infection, first in a rodent model and then in a human population

Master of Public Health 1979, University of Sydney, Sydney, Australia Concentration in Social and Preventive Medicine Treatise was based on a nutrition survey establishing baseline maternal and child health data in a remote district of Papua New Guinea

Diploma of Education 1972, University of Melbourne, Melbourne, Australia

Bachelor of Science 1971, University of Queensland, Brisbane, Australia Major, psychology

EXPERIENCE

1997-present Consultant, undertaking missions involving the development, implementation evaluation, and dissemination of public health nutrition interventions

Oct 97-present Adjunct Assistant Professor, Department of Nutrition, School of Public Health, University of North Carolina, Chapel Hill

1988-Aug 1997 Senior Lecturer in Public Health Nutrition, Nutrition Program, University of Queensland, Australia This position incorporated a half-time secondment to the Epidemiology and Health Information Branch of the Queensland State Department of Health Responsibilities included teaching and research supervision of graduate students in public health and nutrition in programs targeting students from Australia as well as from developing countries Research program focused on the development, implementation and evaluation of community and public health nutrition interventions and was funded through more than 15 successful competitive grants I also undertook a substantial amount of committee work related to policy and program initiatives within the university as well as with the Queensland State, and Australian Federal Governments

1995 Jan-Jun Visiting Faculty, Division of Epidemiology, School of Public Health, University of Minnesota

1990 Jan-June Acting-Director, Brisbane MPH Program, University of Queensland A half-time management position coordinating the development of a multi-institution MPH program

1987-1988 Post-Doctoral Research Associate, Division of Nutritional Sciences, Cornell University, NY, USA (Supervisor Prof MC Nesheim) Established and managed an

HPLC system for determining serum retinol concentrations, managed the provision of laboratory support for investigations of vitamin A and malarial infection in a rodent model, and vitamin A and ascaris infection in children

1980-1982 Research Officer in Human Nutrition, Papua New Guinea Institute of Medical Research Nutritionist on a multi-disciplinary land use team investigating the impact of population density and agricultural stress on nutrition, health, social, economic and cultural parameters of a Papua New Guinea highlands population

1973-1977 Secondary School Teacher, Victoria and Northern Territory, Australia, and in Nairobi, Kenya

CONSULTANCIES

Helen Keller International Conducted the final evaluation of the HKI Child Survival X Project in the Philippines, 26 days, March, 1998

OMNI/USAID-University of Arkansas Prepared a background paper to inform the development of policies and programs related to the impact of non-food sources of iron, and the practice of geophagia, on iron deficiency in developing countries, 10 days, February, 1998

FAO Developed an information system to enhance the management of a commune-based food security and nutrition improvement project in Vietnam, 2 months July/August, 1997 to be followed by 2 months, May - September, 1998

Save the Children Fund Australia Vanuatu Supervised the analysis, interpretation and report writing of the 1996 Vanuatu National Nutrition Survey, 4 months, Feb 1997 -Jan 1998

Nutrition Program, University of Queensland Wrote articles for scientific journals describing the implementation and evaluation of Australian nutrition interventions, September -December, 1997

Commonwealth Department of Human Services and Health Management Committee Member, Australian National Nutrition Education in Schools Project, 1994-1996

Queensland State Department of Health Managed the development, evaluation and dissemination a public-sector weight management program, 1992-1996

Queensland State Department of Education Managed the development and evaluation of a school-based nutrition intervention, 1993-1994

US National Academy of Science (Food and Nutrition Board) Adviser on development of US Recommended Dietary Allowances for Iron, August-September, 1988

Women's Committee, Woorabinda Aboriginal Community Assessed nutrition problems in the community and advised on strategies to address them, 1 month, August, 1989

PUBLICATIONS

Include 25 research papers in refereed journals, 5 editorials and letters, a book review, 16 other published reports, and, over 30 published abstracts

Appendix IV
Summary and Recommendations of the HKI Philippines CSX Midterm Evaluation

The Midterm Evaluation of HKI Philippines' Child Survival X Project "Action for Survival, Action for Progress in Micronutrient and Child Nutrition in the Philippines" took place from August 3-16, 1996 This project is being implemented in target municipalities of eight provinces in the Eastern Visayas and Bicol regions by Helen Keller International, with funds from USAID/BHR/PVC and HKI, in collaboration with the Department of Health (DOH)

Evaluation team members and authors of this report are Ms Margaret Ferris-Morris, MS, external consultant and Mary Ruth Horner, PhD, Nutrition Advisor for HKI Headquarters Information-gathering methods included visits to six participating provinces, interviews with the Provincial Task Forces (PTFs), national, regional, provincial and municipal DOH counterparts, mayors, mothers and *barangay* health workers (BHWs), review of training curricula, reports and materials, review of the DIP and Annual Report, field observations during Advocacy Forums and training sessions, and discussions with project staff

Beginning in October 1994 and in the ensuing 22 months, HKI's CSX staff has worked with national level counterparts to develop an integrated strategy for child development, undertaken the baseline survey, mounted sensitization and orientation training for eight newly-formed Provincial Task Forces, developed a *Child Growth Basic Learning Package* (comprising a reference guide, training modules, comics and counseling cards), translated the training activities and counseling cards into seven languages (now at printing stage), trained eight PTFs as trainers for midwives, coordinated 12 training courses for midwives in eight provinces and 10 BHW courses in five provinces, designed, implemented and evaluated four provincial-level Advocacy Forums for Mayors, and designed and implemented the first Salt Forum in the Philippines Some project activities were delayed due to national elections

Main project accomplishments to date are forming and energizing eight PTFs as a focus for advocacy and action, learning how to attack malnutrition through democratic LGU processes, and making strategic use of materials produced, e g , eight provincial *Health and Nutrition Situation Reports,* producing a comprehensive *Child Growth* package for training, and maintaining HKI's role as major NGO technical advisor to the National Nutrition Service

This project is atypical for the Child Survival Program and represents fairly "uncharted waters" for U S -based PVOs such as Helen Keller International Even though HKI has considerable experience as a technical assistance PVO, it has not applied these skills outside the health sector The LGU system now mandates that NGOs interested in health [and any other issue] learn how to negotiate through the newly-organized bureaucracy at different levels of political authority Devolution of the health system is proving to be quite complex among governmental Departments, thus creating a particularly challenging

environment HKI's CSX project is meeting this challenge and making remarkable progress so far

Total costs of the Midterm Evaluation, including the two members of the evaluation team and excluding local staff time, are approximately $21,000 The results of the evaluation were discussed with all project staff in country Further feedback will include a response by the staff to the evaluation and follow-up by HKI New York

Recommendations

I Project Objectives and Interventions

A Reduce scope and refine interim objectives

1 Reduce number of provinces where work is intensive and focus on four or five with the most potential (e g , Samar, S Leyte, Biliran, Masbate, Albay),

2 Select one or two key interventions to tackle per province, such as salt iodination in Biliran and Masbate, iron supplementation in Leyte, increased VAC coverage in Albay, etc Do not plan to implement the whole package in all eight provinces,

3 Develop province-specific indicators for the chosen interventions, including any of the relevant and viable household behavioral change indicators in the project's DIP objectives, and

4 From now on, and for the Final Evaluation, consider each province as its own unit of measurement, using provincial-specific indicators and modify the Baseline Survey accordingly for the Final Evaluation Do not repeat the Baseline Survey as currently designed until there are sufficient community-level interventions underway to effect household behavioral changes in the eight provinces These changes in practice may not be widespread at all within the life of the current CSX grant

B Evaluate options for the next phase of this project, taking into account the possibility of a no-cost extension (several months) of CSX, the life of the Child Growth Project, and coordination with the funding cycles of potential funders, e g , corporate, private, bilateral, multilateral For example,

1 Apply for a no-cost extension (of several months) for CSX, then apply in December 1996 for CSXIII, incorporating the extension into the new start date, or

2 Apply for a no-cost extension (of several months) of CSX and find other funding sources to complete FY'97, apply in December 1997 for CSXIV, or

3 Consider other scenarios besides USAID/PVC/Child Survival, e g , USAID/Philippines or a combination of local and international donors

Task Forces

A Provincial Task Forces - Plan an additional workshop with each PTF to discuss Task Force identity, mission, focus of activities, follow-up communications plan with LGUs, roles of individual members, monitoring schedule and identification of promising municipalities to work with for the remaining time of CSX Consider external technical assistance to lead HKI through this process with one or more PTFs until HKI staff gained the skills necessary to manage this alone

B Advocacy Events - Consider the suggestions provided by the MTE Team for making these more directed to the audience and more participatory (based on observations of the Advocacy Forum in Malitbog, S Leyte and the Salt Forum in Naval, Biliran)

C Municipal Task Forces - Create municipal-level Task Forces in a few select and promising municipalities using the PTF members to identify these places and to "reactivate" the Municipal Nutrition Committees

III Training of Health Providers

A Training of BHWs - Find and orient additional trainers for the BHW training (since it is just commencing), preferably drawing from the municipal-level health staff to complement the PTF health trainers Release the non-health PTF members from further training responsibilities and redirect their focus to advocacy, monitoring and communications

B Training of RHMs - Incorporate the concept of their role as 'team leader' in the community and the need for them to call on other community leaders to help promote the Child Growth messages Identify several RHMs who already exhibit these qualities, provide them support and monitor behavior change at the household level in the *barangays* under their responsibility

C Training of Public Health Nurses - Design a brief orientation workshop for municipal PHNs in the HKI-focused *barangays* Include PHNs involved in supervision, monitoring of training done by RHMs, use of Counseling Cards by BHWs and application of these efforts by mothers in the household

IV Monitoring

A Process Indicators
CSX staff should use the draft list of indicators to develop a set which can be used to monitor critical processes and achievements at the LGU level Given the diversity of needs and accomplishments to date in each province and the inadvisability of trying to implement the complete package of interventions in all eight provinces, the indicators

for each province should be tailor-made Some will be uniform, such as indicators of the functioning of the PTF, others will be specific, such as activities to promote the availability and consumption of iodized salt

Use a checklist of process indicators for steps that need to occur before household behaviors can be changed, e g , iodized salt needs to be available first in the markets and/or through the health system before households can increase their use, VACs must be available in the clinics before RHMs and BHWs can refer cases

B Qualitative Documentation of the Project

Reporting of successes, examples of accomplishments and progress indicators needs to be done more systematically and routinely HKI should try to better document its accomplishments, for example,

- establish progress monitoring forms based on process indicators in Appendix 6,
- examples of successes need to incorporated into the ACs' monthly reports,
- in written reports, be sure to quantify the number of workshops or consultative meetings, do not assume that the reader knows that one event is being repeated in two, four, six or eight provinces,
- when quantifying materials, specify #___ copies to #___ provinces in #___ languages
- make it easy for anyone to contribute information to this database, for example, set up a folder on someone's desk marked "Child Survival Stories" and put pieces of information in it, even just short hand-written reminder notes taken during a field trip or a meeting when one of these stories comes up

C Implementation of the Monitoring System at the Provincial, Municipal and *Barangay* Levels

Develop monitoring systems for specific project activities which are being implemented at the provincial, municipal and *barangay* levels Determine what will be monitored, using which indicators, who will do the monitoring, how often, using which tools, and what will happen with the data once collected

V Human Resources

Funds permitting, recruit and train a staff assistant for the Area Coordinators and/or consider providing them with cell phones to improve communications during travel and to maximize their efficiency One Coordinator needs a computer and printer and the other needs this her equipment upgraded

VI Materials and Supplies

A Develop more advocacy materials for use by PTFs and others for nutrition and health promotion to various levels and representatives of the provincial and municipal LGUs

B Cancel plans to create a national nutrition newsletter for LGUs

VII Supervision

A Supervision plans (who, what, where, when, how often) need to be developed for PHNs to monitor RHMs and for PTFs and RHMs to monitor BHWs

B Follow-up Training - After each RHM or BHW training, there should be a planned Feedback Seminar (approximately 1/2 - 1 day long) six months later (to discuss how things are going) and a Refresher Training 12 months later for the trainers to go over weaknesses and develop strategies for overcoming difficulties they have observed

VIII Budget Management

A With UNICEF - Work out an acceptable payment schedule from UNICEF to HKI in the four Child Growth provinces so that CSX progress is not hampered due to delays in LGU submission of financial reports to UNICEF (called "liquidation")

B Revisions of budget after MTE CSX management staff need to estimate the impact on the budget of any modifications planned for this project as of the MTE Any major budget changes will need to be discussed with HKI New York and approved by USAID Washington Based on this budget analysis, HKI Philippines should begin to identify funding options for continuing this project