

INTERNATIONAL EYE FOUNDATION
Baso and Worana Woreda, Ethiopia
CS XII

" PVO PARTNERSHIP FOR CHILD SURVIVAL .

Detailed Implementation Plan

DURATION OF PROJECT:
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Submitted by:

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Acronyms

BCG	Bacillus of Calmette and Guerin	—
BF	Breastfeeding	
CCF	Christian Children's Fund	
CDD	Control of Diarrheal Diseases	
CHA	Community Health Agent	
CHW	Community Health Worker	
c s	Child Survival	
CSP	Child Survival Project	
DCM	Diarrheal Case Management	—
DD	Drug Depot	
DIP	Detailed Implementation Plan	
DOSA	Discussion Oriented Self-Assessment	
DPPB	Disaster Prevention & Preparedness Bureau	
DPPD	Disaster Prevention & Preparedness Department	—
DPT3	Diphtheria Pertusis Vaccine	
EHNRI	Ethiopia Health and Nutrition Institute	
EPI	Expanded Program on Immunization	—
HA	Health Assistant	
HIS	Health Information System	
IEC	Information, Education, and Communication	
IEF	International Eye Foundation	
KPC	Knowledge, Practices, and Coverage	
LOP	Length of Project	
MCH	Maternal Child Health	
MDG	Mid-Decade Goals	
MICS	Multiple Indicator Cluster Survey, MOH 1995.	
MIS	Management Information System	
MOH	Ministry of Health	
NGO	Non-Governmental Organization (see also PVO)	—
OMNI	Opportunities for Micronutrient Interventions, USAID Centrally-funded Program	
ORS	Oral Rehydration Salt	
ORT	Oral Rehydration Therapy	—
PA	Peasant Association	
PV	Peasant Village (subset of PA)	
PVO	Private Voluntary Organization (see also NGO)	
QA	Quality Assurance	
QAP	Quality Assurance Project, USAID Centrally-funded Program	
TA	Technical Assistance	
TBA	Traditional Birth Attendant	
TIPS	Trials of Improved Practices	
TT	Tetanus Toxoid	
UNICEF	United Nations Children's Fund	
USAID	United States Agency for International Development	
VA	Vitamin A	
VAC	Vitamin A Capsule	
VAD	Vitamin A Deficiency	
VHP	Village Health Promotor	
WHO	World Health Organization	

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Section A. **FIELD PROGRAM SUMMARY**

DIP TABLE **A: FIELD PROGRAM SUMMARY**

PVO/Country : Ethiopia

Cooperative Agreement No.: FAO-A-00-95-00018-00

Program Duration (from/to mm/dd/yy) : 01/01/97 to 09/29/2000

1. PROGRAM EFFORT AND USAID FUNDING BY INTERVENTION

Intervention	% of Total Effort (1)	USAID Funds in \$ (2)
Immunization	30 %	\$247,373.10
Nutrition/Micronutrients	30 %	\$247,373.10
Breastfeeding Promotion	10 %	\$ 82,457.70
Diarrhea Case Management	30 %	\$247,373.10
Pneumonia Case Management	0 %	\$ 0
Malaria Control	0 %	\$ 0
Maternal and Newborn Care	0 %	\$ 0
Family Planning	0 %	\$ 0
HIV/AIDS	0 %	\$ 0
Others (specify)	0 %	\$ 0
Total	100%	\$824,577

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

2. BENEFICIARY POPULATION PER YEAR

Population Age Group	Estimated Number of Beneficiaries
Infants (0-11 months)	6,595.2
12-23 Month Old Children	6,595.2
24-59 Month Old Children	16,488.0
Total 0-59 Month Olds	29,678.4
Women (15-49 years) (3)	34,624.8
Total Beneficiaries	64,303.2

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

DIP TABLE B: PROGRAM GOALS AND OBJECTIVES

Program Objectives	Measurement Method	Major Inputs	Major Outputs	Measurement Methods
EPI Intervention				
Incr. % children 12- 24 months of age fully immunized from 15.5% to 80%.	KPC and campaign records	-Assits/promote MOH quarterly campaigns. -Estab. monitor sys to identify defaulters-PA level. -Train MOH and IEF/CCF personnel in EPI. -Promote vaccination through community ed.	-Campains held quarterly. -EPI/HIS in place to id. defaulter PAs (lowest % coverage). -MOH and IEF/CCF personnel trained. -Commnity education conducted.	-MOH and project records. -Project records. -Project and MOH records, pre and post tests. -Project records.
Incr. mothers with TT (at least 2 TT) from 22.3% to 80%.	KPC and campaign records	-Perform QA assessment of EPI at mid-term.	-QA assessment performed by mid-term.	-Project records, report of assessment.
Observe no stock outs of any EPI vaccines at health facilities in 3 months prior to final facilities survey.	Facilities survey	-Train MOH personnel in management and logistics focusing on EPI. -Train MOH in QA and apply to logistics.	-MOH personnel trained. -MOH trained in QA and logistics assessment done.	-MOH and project records, -MOH and project records, report of assessment.
Observe no out-of-range temperature readings in 3 months prior to final facilities survey.	Facilities survey	-In collaboration with the MOH, monitor facilities for EPI (cold chain etc). -Conduct fac. survey at mid-term and final.	-Continuous monitoring of facilities with MOH performed. -Fac. Survey completed at mid-term and final.	-MOH and project records. -Survey report completed and project records.
Incr. number of mothers with child health card from 26.3% to 80%.	KPC survey and campaign records	-Conduct hlth ed. with specific messages re: vaccination cards. -Estab. monitor sys to identify % of mothers with cards at PA level.	-IEC system developed and education sessions conducted. -EPI HIS in place to identify PAs not receiving vaccination cards.	-Educational materials available, project records. -Project records.
Incr. number of women with a TT vaccine record (TT or child card) from 30% to 80%.	KPC survey and campaign records			
Incr. % of women that know measles should be given at 9 months from 30% to 80%.	KPC and post tests at education sessions	-Conduct health education with key vaccination messages.	-IEC system developed and education sessions conducted.	-Educational materials available, project records.

DIP TABLE B PROGRAM GOALS AND OBJECTIVES

Program Objectives	Measurement Method	Major Inputs	Major Outputs	Measurement Method
DCM Intervention				
Incr. proportion of health facilities w/functioning ORT corner from 60% to 100%	-MOH and project records.	-Make improvements to existing ORT corners in health facilities.	-Improvements to ORT corners made.	-Project records.
Observe no stock outs of ORS at health facilities in 3 months prior to final facilities survey.	-MOH records and facilities survey.	-Train MOH personnel in management and logistics.	-MOH personnel trained.	-MOH and project records, pre and post tests.
Increase use of ORS/ORT from 6% to 80%.	-KPC survey.	-Develop action plan for making ORS available at community level with MOH including Drug Depots.	-Action plan developed and implemented.	-MOH and project records.
Increase the % of mothers that give increased fluids from 13.5 to 30%.	-KPC survey	-Develop IEC that includes locally available home based fluids.	-IEC developed and home based fluids promoted.	-Educational materials available, project records.
Increase the % of mothers that give increased food from 6.2 to 30%.	-KPC survey	-Conduct health education sessions with key DCM messages emphasizing prevention of dehydration and home based fluids.	-Health education sessions conducted as scheduled.	-Project records.
Increase the % of mothers giving increased amounts of breastmilk from 13% to 30%.	-KPC survey			

Program Objectives	Measurement Method	Major Inputs	Major Outputs	Measurement Method
Breastfeeding Intervention				
Increase exclusive breastfeeding from 17.7% to 40%.	-KPC survey	-Develop IEC material for use at community level. -Conduct health education sessions with key breastfeeding messages.	-IEC materials developed. -Educational sessions conducted as scheduled.	-Educational materials available, project records. -Project records.
Increase the % of women breastfeeding within one hour of delivery from 21.8% to 40%.	-KPC survey			

Program Objectives	Measurement Method	Major Inputs	Major Outputs	Measurement Method
Nutrition/VA Intervention				
Increase coverage of VA to pp women from 4.3% (oral report) to 30% (on card).	-KPC survey	-Conduct VA campaigns linked to EPI. -Identify and target defaulter PAs through HIS.	-VA distributed at campaigns. -Defaulter PAs identified and visited.	-KPC survey and campaign records -Campaign records and project records. -Project records.
Increase coverage of VA to children from 6% (oral report) to 75% (on card).	-KPC survey and campaign records.	-Distribute VA to post-partum mothers through TBA's and campaigns.	-VA distributed to post-partum mothers.	
Increase the % of mothers giving solid and semisolid foods to 6 to 10 month olds from 46.7% to 70%.	-KPC survey.	-Develop IEC for nutrition (and EPI and diarrhea). -Conduct feasibility study of microenterprise based on the production of an energy/micronutrient rich weaning food.	-IEC developed. -Microenterprise assessment completed.	-Educational materials available, project records. -Project records, report prepared. -Project records.
Increase the % of mothers that know VA prevents nightblindness from 8.7% to 60%.	-KPC survey.	-Conduct health education sessions with key nutrition and vitamin A messages.	-If deemed appropriate, 2 pilot microenterprises created. -Nutrition education sessions held as scheduled.	-Project records.

Section C. PROGRAM LOCATION

c.1. **Location Maps**

See attached, Annex I.

C.2. **Location Description**

The **IEF/CCF** Child Survival Project, “PVO Partnership for Child Survival” will be conducted in the North Shewa Zone of the Amhara Regional State of Ethiopia. The country is well known for severe droughts which occurred in the midst of **civil** war in the 1980’s. One of the poorest countries in Sub-Saharan Africa, Ethiopia also has some of the highest maternal mortality, illiteracy and infant mortality. The disease pattern is **characterized** by **diarrheal** disease, acute respiratory **illness**, vaccine preventable **illness**, and other communicable and water wash diseases due to poor environmental sanitation.

Ethiopia--Health Statistics

Total Population	55 Million ³
Crude Birth Rate	47.3/1000²
Crude Death Rates	18.1/1000²
Fertility Rate	7.7/woman²
Infant Mortality	101/1000²
Under 5 Mortality	152/1000²
Under 5’s Underweight	48%¹
Maternal Mortality	1,400/100,000¹
Life Expectancy	47 years’
Literacy Rate	24%²

¹The Progress of Nations, UNICEF, 1997.

²Children and Women in Ethiopia, UNICEF, 1993.

³Includes the population of Eritrea, GOE Census, 1994.

The project is located in **Baso** and Worana Woreda (subdistrict), situated about 120 km north east of the capital city of Addis Ababa, in the highlands of Ethiopia. The population of the Woreda is approximately 165,000. The majority of the population is rural, with about 40,000 people living in the main town of Debre Birhan. Communities are well organized into 23 Peasant Associations (PA) which consist of 112 Peasant Villages (**PVs**). PVs range in size from 59 to 601 households in rural areas and from 948 to 1348 in the urban town. The majority of villagers are subsistence farmers.

The originally proposed area included the woreda of Tamaber. It was decided to exclude this area because the additional population added was not significant given the additional resources needed to collaborate with another woreda administration. The USAID Mission was informed of this change at a meeting on July 31, 1997 and approved the decision to exclude the portion of the woreda originally targeted.

As in the majority of Ethiopia, the predominant religious order in the project area is **Orthodox-Christian**. The predominant ethnicity is Amhara with 95% of the population **speaking** Amharic. The minority group in the area is the Oromifa, making up approximately 5% of the project population.

Within the Woreda there is one hospital. The hospital located in the town of **Debre** Birhan serves the urban population. There is one physician and one nurse in the pediatric clinic of the hospital. The Woreda also contains 6 health stations which are manned by two Health Assistants (HA) each. HAs are trained to give vaccinations and medications. Each health station has one health post and several outreach sites which are visited monthly. The health stations are permanent structures with a refrigerator and other facilities for EPI and labor and delivery. Six health posts serve as permanent outreach sites with a variety of lesser, non-permanent outreach sites serving each health station. Health posts have no permanent equipment and are manned by volunteer community health workers (CHW) which include Community Health Agents (CHA) and Traditional Birth Attendants (TBA).

Catchment Area of Health Stations

<u>Health Station</u>	<u>No. of PV's served</u>	<u>Total pop.served</u>	<u>No. of outreach sites</u>
Gosho-Bada	9	9,515	8
Chibre	6	6,443	7
Keyit	42	46,560	26
Angolela	12	13,000	11
Metkoria	4	4,600	5
Tija Sar	n/a	n/a	n/a

Section D. PROGRAM DESIGN

D.1. Summary of overall program design

The International Eye Foundation (IEF) has formed a partnership with the Christian Children's Fund (CCF) to join the technical strength of the IEF with the community mobilization expertise of CCF to bring the highest quality of child survival programming to the area of Base and Worana in Ethiopia. The area was chosen based on need and on **CCF's** history of successful programming in the region. Although the **area** is not specifically one of the USAID Mission priority sites, it does address the Mission's overall strategic objective to increase the population's access to primary health care services. The project fits within MOH objectives, specifically targeting the Ministry's Mid-Decade Goals (MDG) and decentralization strategy.

The current health system in the project area can be described as facility based with only limited outreach capabilities. There are extremely low coverage rates of the most basic child survival interventions: immunization, vitamin A capsules and health education for diarrhea and nutrition. Outreach is limited due to staffing shortages, lack of functioning equipment at

outreach facilities, lack of transportation, shortage of outreach facilities, and the mountainous terrain of the area. Despite these factors, the MOH staff remains dedicated to improving the health status of the Paso and Worana Woreda and is struggling to maintain the current coverage rates.

Community knowledge of basic health interventions is also extremely low and is compounded by harmful cultural practices such as withholding food and water during diarrheal illness. There has been little emphasis on educating communities, in part due to the lack of staff at the MOH facilities.

The project approach will consist of implementing a limited number of child survival interventions in this first stage of the program. It is anticipated that these four interventions will lay the ground work for later expansion in a second phase of funding. The four interventions will be: 1) Expanded Program for Immunization (**EPI**), 2) Diarrhea Case Management @CM), 3) Vitamin A (VA) and nutrition and 4) breast-feeding (BF). These interventions address the most critical needs currently faced in the **area**. Although ARI is the leading cause of death in Ethiopia and is not addressed directly by the project, it was determined that the current capability of the facilities to handle this intervention were not adequate and would require an intense effort beyond what is cost-effective at this time. Instead, the project will approach mortality due to ARI through its underlying cause of malnutrition and by improving the capacity of the MOH. This will prepare the CSP **and the** MOH to include the intervention in a second phase of this program.

By first upgrading and then expanding outreach services for EPI and VA the project expects dramatic increases in coverage. The MOH will implement this intervention with support from the child survival project (CSP). Collaboration with the MOH will be maintained with all of the interventions. Yearly workplans and training plans to improve MOH capacity will be negotiated with the Ministry to ensure full support at all times.

Community mobilization for health will be developed through the existing network of Peasant Associations (PAs). A targeted IEC strategy will be developed with technical support, to deliver appropriate health education messages for all of the project interventions. Although strong cultural practices exist which pose a barrier to positive health practices, the project expects to realize important improvements to community knowledge and practice surrounding childhood illness, and to create strong alliances with community members and leaders leading to greater increases in future phases of the project.

Once the interventions are in place, Quality Assurance (QA) will be introduced. QA will provide the necessary tools and perspective to monitor quality in addition to coverage and will support capacity building of the MOH. The methodology will first be applied to **the** EPI intervention, to identify barriers to coverage and to maintain the quality of **the** cold chain, and later to the remaining interventions.

The project will begin to address other key **organizaional** issues concerning CCF's health programming and other donor driven **approaches** such as PVC CS. Currently, CCF operates as a sponsorship program necessitating tying sponsorship funding to the targeted communities in which the sponsorship child lives. Programming is thus concentrated to the child's family and immediate community. The CS project is targeting the wider population, the vast majority of which are not sponsored children. The organizational task before CCF is to bridge CCF's experience in working though targeted sponsorship to a public health approach which is promoted though USAID CS funding. Involvement in the PVC CS program combined with close technical and administrative support from IEF will strengthen CCF Headquarters and National offices knowledge and execution of the state of the art in child survival.

The following is a list of the target populations by intervention:

1. EPI: target: women of child-bearing age
 target: children 0-24 months
2. Nutrition: target: women of child-bearing age
 target: children 4-24 months (weaning foods)
 target: children 0-24 months with illness
3. Vitamin A (VA): target: children 6 - 60 months
 target: postpartum women
4. Breast-feeding: target: children 0-6 months (exclusive)
 target: children 0-24 months with illness (continued feeding)

D.2. Collaboration and formal agreements

The CSP proposal is currently passing through a process of appraisal by appropriate government organizations at the Woreda (subdistrict) and zonal levels, after receiving initial approval. These government departments include the local MOH, Zonal Planning Department, Woreda Council, Woreda Health Office and Zonal Disaster Prevention & Preparedness Department (DPPD). After the appraisal the CSP document will be sent to the regional Disaster Prevention & Preparedness Bureau (**DPPB**) & Regional Health Bureau.

Implementation of the program will be a joint effort of the MOH and the CSP. Collaboration with the MOH was initiated prior to the development of the initial proposal submitted to USAID in 1996. Collaboration will extend to NGOs and other governmental organizations within the project area, especially with regard to family planning and HIV/AIDS which were not included in the project.

D.3. Technical Assistance (TA)

A variety of technical assistance will be accessed in support of project activities. The following is the list of TA to be accessed and the timetable for use of TA. When possible, in-country TA will be utilized.

1. Development of IEC for Nutrition, DCM and EPI Interventions.

Consultant: Zewdie Wolde-Gebriel, Ph.D., Human Nutrition

Time frame: January 1998 to June 1998

At this time, Dr. Gebriel, a country national from Ethiopia and the former Head of the Ethiopia Health and Nutrition Institution is being considered for the consultant position to develop the IEC strategy for the project. The IEC strategy will cover all interventions of the project but will concentrate **on** nutrition. As part of the development of the IEC, Dr. Gebriel will also complete an assessment of current feeding practices and nutrition behavior including characterization of common foods and their consumption patterns. Educational materials will be developed using the Trials of Improved Practices (TIPS methodology, Griffiths et al.) or an adaptation of TIPS, specifically targeting appropriate groups in the project area. The consultancy **will** take between four and six months is the TIPS methodology is followed.

2. Assessment/development of weaning food microenterprise.

Consultants: Dr. Zewdie Wolde-Gebriel, Ph.D. and To be named (Marketing/Sales Expert).

Time frame: Spring 1997 and Fall 1997.

The project proposes to test a weaning foods intervention based on a microenterprise model which has been tested by the Johns Hopkins Division of Nutrition and Pennsylvania State **University**.^{9,10} In order to develop a successful strategy for the weaning foods microenterprise, the activity will be assessed from a nutrition stand point, which includes acceptability of the product to project mothers, and from an economic stand point, including a market survey for sales potential, During the nutrition assessment, Dr. Gebriel will likely be contracted to conduct focus group sessions on the types of weaning foods and their modifications that would make the product especially appealing to project mothers. A market analysis of the sales potential of the product in and around the project area would be conducted after development of the actual product. Access to this type of TA would be assured though **IEF's** broadening cost recovery and business model programing in the region.

3. Assessment of EPI system.

Consultant: To be named (EPI Specialist)

Time frame: First quarter 1998.

An EPI specialist will be contracted to evaluate the EPI strategy for the project. S/he will assess upgrades to the facilities and will determine if further supplies and/or equipment are needed. The consultant will **also evaluate the current** logistics coordination that is taking place in the Woreda and make recommendations to the MOH and the project staff to improve movement of supplies to the field.

4. Assessment of cost-recovery system of project and health **system**.

Consultants: To be named (Cost **Recovery** Expert).

Time frame: Spring 1998.

An assessment of the current cost recovery systems in place in the district needs to be completed to **ascertain** the effectiveness of the current strategy. The consultant will take into account that the current project strategy was developed based on MOH policy. Recommendations for changes will take into account sustainability and will try to maximize **accessability** of communities to needed medications and services. IEF links with cost-recovery systems in the region will be accessed for technical assistance.

5. Introduce Quality Assurance methodologies to EPI and other project interventions.

Consultants: n/a

Time Frame: Year 2 of project activities.

TA for this activity will be accessed through regional training by the Quality Assurance Project (QAP), Bethesda, Maryland and/or through IEF Headquarters staff. The IEF is currently working with the QAP in a capacity building program with the Malawian MOH and has worked with the QAP on a variety of other activities in **Latin** America. The IEF maintains strong expertise in QA and a commitment to make QA part of all field activities. It is felt that the project activities should be initiated before beginning the QA training. CCF staff (Project and Deputy Managers) and an MOH counterpart will participate in the regional training and will be responsible for training of other CCF and MOH staff in-country. The first intervention to be assessed using QA will be EPI, others will follow as needed.

D.4. Detailed plans by intervention

Expanded Program for Immunization (EPI) Intervention

1. Incidence and Outbreaks

Passive surveillance is done for all vaccine preventable disease including: meningitis, cholera, yellow fever, measles and polio. Health institutions report cases of such diseases weekly as seen during their routine activities. Moreover, when these notifiable disease are reported from a community, and an outbreak is suspected, health personnel visit the village for verification and intervention purposes. Measles outbreaks have been reported in the past two years by the MOH.

2 . Baseline C o v e r a p e

Coverage rates for all vaccines were found to be low in the KPC survey. Only 15.5% of 12 to 24 month-olds were fully vaccinated. Immunization status for children 12-23 months of age was based on observation of the immunization card of 122 children. The following are the coverage figures for BCG, OPV, DPT, and Measles:

. Immunization Status of Children
12-23 Months of age

Antigen	No. Children	Percent
BCG	37	30.3
OPV- 1	35	28.6
OPV-2	30	24.5
OPV-3	24	19.6
DPT- 1	37	30.3
DPT-2	33	27.0
DPT-3	26	21.3
Measles	26	21.3
Drop-out Rate		
OPV	11/35	31.4
DPT	11/37	29.7
Overall Immunization Status		
Not immunized at all	84	68.8
Partially immunized	19	15.5
Fully immunized	19	15.5

The majority of mothers stated that they had never received a vaccination card (69.0%) while a few (4.0%) stated having lost the card. Only 26.3% of mothers had a card for their child at the time of the KPC survey.

A facilities survey (attached as Annex VIII) which was conducted shortly after the KPC survey showed basic **infrastructure** to be in place for the implementation of the EPI intervention. All the health institutions had a refrigerator, the majority of which ran on kerosene. In only two of the health stations (2/6) were the refrigerators not functioning. At the time of the survey all of the **functioning** refrigerators had thermometers and all were observed to be in the proper range **from** 0 to 8°C. Three health stations had a temperature chart with no out-of-range temperatures noted on the chart. All of the health institutions with **functional** refrigerators had frozen cold boxes, two of which were **functional** and all had **functional** vaccine carriers.

Supplies for EPI were adequate. No vaccine outages had been reported during, or in the three months prior to the survey. Some supplies for immunization and treatment were reported to be out of stock more than once in the last three months, 2/6 and 1/6 health institutions reported outages of needles and syringes respectively.

The findings of the facilities survey are consistent with a report on EPI conducted by the MOH in conjunction with USAID, UNICEF and WHO in 1995.

An interview of health workers conducted during the facilities **survey** illustrates the priority issues faced in the implementation of EPI. The three main concerns were: 1) low community participation, 2) poor support from the community leaders and, 3) lack of community awareness. Lack of supplies and training were low on the list of concerns for this intervention.

3. MOH Policies

The MOH of Ethiopia follows guidelines set by the WHO. Vaccinations are conducted on a regular basis at static clinics and on a monthly to quarterly basis at outreach sites (health post). As confirmed by the facilities survey, vaccine availability and storage is generally good with a lack of transportation, personnel and community awareness being important barriers to immunization.

From 1974 to 1990, the MOH increased access to health services from 20 to 45 percent. This increase translated into improved immunization rates during the same period. However, when the civil war reached its peak in 1990-91, immunization services at about half of the existing sites discontinued **services**.³ Immunization rates have shown a rising trend since the end of the war but they remain low.

Full immunization coverage is currently at 33.5% nationally, with BCG, DPT3 and Measles coverage in 12-23 month-olds at **44.7%**, 42.8% and 38.4% respectively.” These values are low in comparison to the rest of Sub-Saharan **Africa**. Values in the project area were much lower, with 15.5% of 12-23 month-olds fully vaccinated and **30.3%**, 21.3% and 21.3% for BCG, DPT3 and measles respectively.

In 1995, the MOH in collaboration with UNICEF conducted a Multiple Indicator Cluster Survey (**MICS**) to measure progress towards the Ethiopian Government’s Mid-Decade Goals (MIX). The rates of immunization fell below the goals, based on the World Summit for Children and Health for All initiatives. However the MOH will continue to strive for 80% coverage for immunizations to the end of the decade. Recent efforts to decentralize the MOH should assist with this effort. Recommendations from the MICS have been taken into account in writing this DIP. The improvements that have been documented have been attributed to the expansion of services, increases in the availability of equipment and vaccines, training of **staff** and social mobilization; all of which will be addressed in the project’s strategy for the EPI intervention.

4. Knowledge and Practice

The results of the KPC survey were not surprising in relation to knowledge and practice. There is low understanding of the importance of EPI as well as low understanding of vaccine schedules by communities. It was reported that a total of 84.6% of mothers did not know that a child should receive the measles vaccine at nine months of age, 92.3% of mothers did not know the reason for TT vaccination and only 24.3% of mothers stated that a pregnant women needs at least two TT injections to protect the newborn infant from tetanus.

In general low access to health education and to **health** service has lead to low knowledge and health seeking practices in this population. Addressing these gaps will be a priority for the project being described in this DIP.

5. **Approach**

As previously indicated, the success that the MOH has seen to date in EPI has been due to the expansion of services, improvements to existing services through training of personnel and through community mobilization and education. This project will continue to utilize these proven strategies.

The strategy for the EPI intervention will be as follows:

1. Set goals in line with the MOH, MDG. In order to ensure **full** collaboration with the MOH, the goals of the project must coincide with set goals. The following objectives have been set for the EPI intervention:

- a. Increase the percent of children 12 to 24 months of age **fully** immunized from 15.5% to 80%.
- b. Increase coverage of mothers with TT (at least 2 TT, on card) **from** 22.3% to 80%.
- c. Observe no stock outs of any EPI vaccines at health facilities in 3 months prior to **final** facilities survey.
- d. Observe no out-of-range temperature readings in 3 months prior to final facilities **survey**.
- e. Increase the number of mothers with child health card **from** 26.3% to 80%.
- f.** Increase the number of women with a **TT** vaccine record (TT or child card) **from** 30% to 80%.
- g, Increase the % of women that know measles vaccination should be given at 9 months from 30% to 80%.

The objectives hope to measure improvements in coverage (a, b and e) and knowledge (g). Although vaccine outages and refrigerator temperatures were not shown to be a significant problem, the project will continue to monitor these quality indicators to ensure proper practices are continued (c and d).

2. Upgrade existing services. As determined in the facilities survey a number of the health stations and posts are in need of basic cold chain equipment. See section 10, Cold Chain Support for details of items to be ordered. The approach of the project will be to upgrade the facilities by purchasing and/or obtaining any needed, basic cold chain equipment.

3. Expand existing services. Vaccination campaigns, held quarterly will be central to this intervention. Although it is the aim of the MOH to conduct these campaigns their scope and effectiveness has been limited by logistical constraints. The CSP **staff will** assist with logistics and publicity for the campaigns and will provide the MOH with vitamin A Defaulters will be traced at the level of the PA with PA leadership assistance (see HIS section). Campaigns will not be encouraged during the rainy season when it is **difficult** for families to reach vaccination sites and for personnel to travel. Vaccination will continue at static sites, also with added support **from** the project.

4. Training of MOH **staff**. MOH and project staff will be trained in EPI, including, vaccination regimens, care and proper administration of vaccines, storage of vaccines, quality control, procurement and logistics, and community mobilization. A baseline evaluation of the current levels of knowledge, more detailed than has been collected during the facilities survey, will be conducted with all personnel and **will** be repeated yearly to direct topics of trainings and to evaluate the quality of trainings. As indicated in the facilities survey, the majority of MOH personnel are aware of vaccine regimens and the interval between doses.

5. Quality Control of EPI. After the project has been in operation for one year, the CSP staff and at least one MOH counterpart, will undergo regional training in Quality Assurance (QA) and Quality Control Systems (QCS). The trained **staff will** then be responsible for training the MOH to **successfully** conduct QA assessments independently. This will subsequently be applied to the EPI intervention, and later to the other interventions of the project QA, as applied to EPI, will address issues of coverage, and management and logistics. The skills learned by the project and the MOH are applicable to all levels of management and assist with the concept of decentralization as QA puts control of the process in the hands of the person administering the vaccine.

6. Community Education. The project will take advantage of existing community groups such as the **PAs** to educate community members about EPI. Lectures will be conducted at PA meetings and at other times designated and publicized in advance by the community level volunteers. Communities are organized into PAS which will be encouraged to participate in health activities at their community level. In addition to lectures the project will organize skits and community theater presentations.

IEC materials will be developed for the project by a consultant at the start of project activities. Materials will be developed following focus group discussions and other qualitative data gathering methods to obtain information on community perceptions. Educational sessions will utilize participatory methods and periodic pre and post-examinations.

MOH personnel will be trained in participatory education techniques and will be provided with all project materials. (Details of the IEC development are in the nutrition intervention section of the DIP.)

6. Individual

The MOH utilizes a child health card (attached as Annex II) which has space for all childhood vaccinations, the mother's TT vaccine, and growth monitoring. The card does not currently contain a space for marking vitamin A capsules. Mothers are given a separate TT vaccination card, although the child health card may be used for this purpose. The facilities survey indicated that vaccination cards were available at health stations but only 26% of mothers were in possession of the child's card at the time of the KPC.

The project will continue to use the card of the MOH to monitor EPI, and will add a notation regarding vitamin A to monitor that intervention as well. As is the current practice, all information for vaccines will be kept on the card and on the health station registers. Separate registers will be **utilized** by the project to monitor coverage at campaigns.

Mothers keep the child and mother vaccination cards. Only 6% were reported lost during the KPC. It is thought that the distribution of cards to families is a much larger problem than loss, therefore the project will concentrate on making sure that all women and children receive a card.

7. Dron-outs - Children

Indications are that high drop-out rates are due to lack of knowledge of the communities and difficulty in accessing vaccination sites. The project has incorporated its strategy for addressing drop-outs into its overall intervention strategy. In general, the combined approach by the project of supporting existing static centers and upgrading these facilities in addition to expanding outreach services and keeping track of coverage rates by PA to identify defaulter areas will work to decrease drop out rates. Education of both communities and health personnel will also contribute to minimizing drop out rates.

8. Drop-outs - Women

See section 7 above.

9. Population

The population of the Woreda is approximately 160,000. Of the total population it is estimated that 34,624 (22%) are women, ages of 15 - 49 years and 13,190 (8%) are children aged 0 - 23 months. The EPI intervention will target children under one year of age and mothers of child bearing age for vaccination.

10. Cold Chain Support

Based on the facilities survey the project personnel have identified basic equipment needs for the 6 health stations of the Woreda (see below). Once upgraded, the project will utilize the **MOH's** monitoring system of temperature charts and log sheets. Spot checks of the system will be conducted by the project and the MOH monthly, in coordination with other supervisory visits. During campaigns and other outreach activities, MOH and project staff will also collect temperature from cold boxes. This information will be compiled together with reports from the health stations to monitor quality of the EPI intervention.

The following items and repairs will be arranged to upgrade existing **facilities**:

- a. repair or replace two refrigerators at health stations;
- b. purchase temperature charts for health stations as needed;
- c. purchase four cold boxes for health stations;
- d. purchase or repair sterilization equipment as needed for health stations and hospital;
- e. single purchase of supplies, including needles, syringes, gloves etc.

Diarrheal Case Management @CM) Intervention

1. MOH Protocols

The Ministry has adopted the WHO's current guideline for managing diarrhea (**WHO/CDR/95.3**) which includes home treatment for children without dehydration and ORS for some dehydration. The MOH dispenses ORS through its health stations for a fee of 1.25 Birr. Supplies of ORS at the health centers and hospital are good with no shortages being reported in the three months prior to the facilities survey. However, the ORS is not always available at the ORT corners, possibly due to cost. The ORS is dispensed with other medicines **from** the pharmacy and is not generally available through outreach personnel such as CHWs because of outages. In the future the MOH has plans to distribute ORS from outreach sites called Drug Depots (DD) and through outreach personnel.

In accordance with the World Summit for Children, the MOH **MDGs** call for the following:

- Increased use of ORS from current levels to 80%.
- Increased use of home available fluids **from** current levels to 80%
- Increase of continued breast-feeding during diarrhea to 80%

In cases of bloody stool or dysentery, the MOH also follows the WHO Guidelines (**WHO/CDR/95.3**). All cases of blood in the stool are to be referred to a health station for antibiotic treatment. The drug of choice for shigellosis is co-trimoxazole followed by ampicillin. There is no indication at this time that there is resistance to these drugs. Diarrhea of all types reaches peak incidence in the rainy season.

Health worker knowledge and practice was observed to be in need of improvement during the facilities survey. Four (50%) of eight workers observed knew at least two signs/symptoms to ask a child with diarrhea; all Health Assistants knew at least two signs/symptoms to look for in a child with diarrhea; fifty percent were able to **classify** diarrhea correctly; 25% (**2/8**) classified dehydration correctly; and twenty five percent were able to describe the different forms of treatment correctly. Advice for home care for diarrhea was mentioned by only one of eight health workers observed. Antibiotics were stated as the treatment for bloody diarrhea in three out eight cases (37.5%) and for other forms of diarrhea in four out eight (50%) cases. Two out of eight workers knew a mother should refer a case of severe diarrhea.

Exit interviews with mothers also identified areas for potential improvement. In only one out of ten (10%) cases of diarrhea did a mother report giving the child home-based fluids prior to bringing the child to the health station. In three out of ten (30%) cases the child had received

other types of medications at home. The majority of children, six out of ten (**60%**), received nothing at home prior to visiting the health center. Very few, one out of ten (10%) cases, visited another health provider (in this case a private clinician) before coming to the health institutions.

Health information posters were displayed in all health institutions. All the health institutions have an ORT corner but two are not being used and two have incomplete equipment. ORS was available in all of the health institutions.

2. **Incidence and distribution.**

According to the MOH, diarrhea is responsible for 40% of under 5 deaths. Overall children suffer **from** an average 5 diarrheal episodes per year. The recent national cluster survey reported 18.7% of children with diarrhea in the two weeks preceding the survey. Diarrhea rates in the project area were almost twice as high at 32.6% (**98/300**). The majority of deaths due to diarrhea are **from** rapid dehydration.

Cultural habits restricting food and water during illness are of concern in Ethiopia and this is no different in the project area. Twenty-eight mothers (28.9%) gave their children less breast milk than usual during diarrhea, and 4 mothers (4.1%) stopped giving their child breastmilk completely during the diarrheal episode. Twenty-four mothers (24.5%) gave their child less fluids than usual during diarrhea, and 11 mothers (11.2%) stopped giving their child fluids completely during the diarrheal episode. Twenty-six mothers (26.8%) gave their child less food than usual during diarrhea, and 14 (14.4%) mothers stopped giving their child food completely during the diarrhea episode. In sum, 33.6% gave less or stopped giving breastmilk completely, 35.7% gave less or stopped giving fluids completely during their child's diarrhea episode and 40.8% gave less or stopped giving food completely during their child's diarrhea episode.

3. **Knowledge and Practice**

Knowledge and use of ORT is low in the project area. Only 13.5% were given more fluids than usual during the diarrheal episode. Only two children (2%) were given ORS sachets and cereal based ORT each, while four children were given salt-sugar solution and home fluids. Sixty-one (62.2%) mothers did not give any treatment for their child's diarrhea. Only two mothers gave their children medicine as treatment for their child's diarrhea. ORS use was much higher in the national MICS at **26%**.

Of the 33 mothers who sought advice or treatment for their child's diarrhea 57.7% (19 mothers) went to a hospital, 6.0% (2 mothers) went to a health post, and none went to community health workers, traditional birth attendants, or traditional healers.

When asked which signs/symptoms would cause them to seek advice or treatment for their child's diarrhea: fever, vomiting and blood in the stool were referred to by **19.6%**, 7.3% and 8.3% of mothers respectively.

Many mothers (36.6%) stated that taking a child to a hospital or clinic would be an appropriate action for **diarrheal** illness while approximately the same number (35.6%) did not know any action to take. Home-based solutions (increased fluids, **frequent** feeds, etc) were rarely mentioned by the mothers. Six mothers (6.1%) stated that withholding fluids or foods as an important action to take if the child has diarrhea.

4. **Approach**

Overall there is a lack of home based therapies being used for diarrhea by project communities. This is due in part to a lack of knowledge by the mothers, combined with harmful cultural practices leading mothers to withhold food and water **from** the **ill** child.

Further, health workers are not stressing the importance of home-based treatments with the communities, ORT comers are not functioning or are not being used primarily due to a lack of supplies and ORS is not available in communities for easy access to the public.

The project will concentrate its DCM intervention on the prevention of dehydration through home-based treatments such as increased fluids. In support of this aim, the project will educate MOH, project personnel and communities on acceptable home-based methods, signs of dehydration and referral actions for dehydration, dysentery and prolonged diarrhea. Case management will also be reviewed with MOH and project personnel. The project will upgrade the existing ORT comers to ensure that all are functioning and will assist the MOH in maintaining the comers as an essential component to educating communities. Project personnel and community level volunteers will promote home based ORT and ORS through community education.

Increasing access to ORS at the community level will require collaboration with the MOH to encourage the dissemination of ORS through community workers. A plan for this component of the intervention will be developed by the MOH and project personnel within six months of the start of project activities. The plan will need to take into account the collection of fees for the ORS.

In order to address the community with effective educational materials, the project will employ a consultant to develop a targeted IEC strategy. This strategy will be developed in conjunction with the nutrition and EPI materials and is **fully** discussed in the nutrition section of the DIP.

The use of antibiotics in cases of non-dysenteric (bloody) diarrhea does not pose a large concern for the project at this time. Information regarding the use of antibiotics and hygienic practices will be incorporated into educational sessions but will not be a specific component of the intervention (ie. no measurable objectives).

Objectives for this intervention are:

- a. Increase the proportion of health facilities **w/functioning** ORT comer from 60% to 100%

- b. Observe no stock outs of ORS at health facilities in 3 months prior to final facilities survey.
 - c. Increase use of ORS/ORT from 6% to 80%.
 - d. Increase the percentage of mothers that give increased fluids **from** 13.5 to 30%.
 - e. Increase the percentage of mothers that give increased fluid **from** 6.2 to 30%.
- E Increase the percentage of mothers giving increased amounts of breastmilk from 13% to 30%.

5. Oral Rehydration Salt (ORS)

As mentioned in the approach section, increasing the availability of ORS beyond the health centers is a priority of the program. Availability of the ORS at the health center level is very good, with no stock outs of ORS having been reported in the three months prior to the facilities survey. A cost of 1.25 **Birr** is charged by the MOH for every ORS sachet.

Project personnel will develop a detailed plan of action with the MOH in the first six months of the project. The plan will aim to distribute ORS through TBAs and **CHWs** and other village level personnel to increase access of ORS to communities.

Educational sessions in communities will periodically monitor the skills of community members in preparing the ORS and other home-based fluids. Information on the communities abilities to administer ORS will be actively shared with the MOH to foster support for community involvement in this intervention.

6. Home Available Fluids

As part of the development of the IEC plan, during focus group interviews with communities, a list of suitable home fluids will be developed. The list will include salted drinks such as ORS, vegetable soup and salted cereal water. Sugar-salt solutions are not promoted by the MOH in accordance with WHO guidelines. Other fluids which are found in the project area and are likely to be used will include: plain water, unsalted cereal water or soup, yogurt drinks and weak teas. The use of sweetened teas and coffees, **soft** drinks and other unsuitable fluids will be discouraged.

7. Health Education

The development of an IEC strategy for all of the interventions of the project is a primary objective of the program and is explained in detail in the nutrition intervention section of the DIP. Health education will be both facilities and community based and will incorporate monitoring of educators and the community to direct educational topics to weaknesses exposed. The educational sessions will be organized by communities and PAS. A health worker will visit each community monthly, giving a different topic each month. This will lead to quarterly educational sessions based on DCM.

Educational messages will focus on home based treatment of diarrhea with appropriate fluids. Community members will be taught the signs of dehydration and prolonged and bloody diarrhea for proper referral.

8. **Prevention**

The primary focus of this intervention will be on the prevention of dehydration due to diarrhea. The prevention of diarrhea itself, through improved hygienic practices, will be incorporated into the educational sessions but will not be evaluated as a specific objective of the project. There is no plan on the part of this project to build latrines or wells.

Information regarding water availability at the health institutions was collected during the facilities survey. With the exception of Angolela health station, all have potable water supply. The hospital uses pipe water while the other four health stations use protected **springs**. All the health institutions have a **functional** toilet/latrine.

9. Other

All of the questions posed in section D.4 of the DIP guidelines have been answered in the sections above regarding the DCM intervention.

Nutrition/VA Intervention

1. Nutrition Status

High food insecurity and a high burden of disease have led to poor nutritional indicators throughout Ethiopia. In rural Ethiopia only 10% of households were reported as food secure in 1992 by the FAO. Nationally, 8 percent of children less than 5 years of age are wasted, 64 percent are stunted and 46.9 percent are underweight. Maternal malnutrition is also high with 27 percent of lactating women malnourished. High fertility rates combined with low agricultural outputs will make improvements to the food security situation difficult

As is typical in sub-Saharan Africa the rate of malnutrition increases in Ethiopia between the ages of 12 to 24 months due to prolonged exclusive breastfeeding and the late introduction of complementary foods. Additionally, the introduction of breastfeeding is often delayed after the birth of the child. The KPC survey of the project area reports that, of mothers who have breastfed, 30.7% initiated breastfeeding three days after giving birth..

Micronutrient deficiencies are also prevalent in Ethiopia, however, iron deficiency anemia is not an overall public health concern, in part because the staple food, njera, contains iron. Iron deficiency has been found in pregnant women (17.4%) and in preschool children (48% in a rural town). High rates of goiter (20%) were found in a 1990 national survey with higher rates in highland areas, such as the project site. Efforts to **fortify** salt, which comes to Ethiopia **from** Assab, Eritrea began in 1995.

A vitamin A deficiency (VAD) problem of public health significance has been documented in Ethiopia. In a 1980 national survey, 1% of 6 to 59 months-olds presented with Bitot's spots and 16% had deficient levels of vitamin A in serum. A village level study of clinical xerophthalmia

signs, conducted near the project area, north of Addis Ababa, found a prevalence of 7% of children with severe signs of VAD (a level 7 times higher than the criteria cut-off for designating an area of deficiency).

Although vitamin A capsule (VAC) distribution has been linked with EPI recently, coverage rates, availability and health worker knowledge of VA dosages is low. Coverage rates were 6% for children and 4% for mothers, both by oral report. One health worker, out of eight questioned in the facilities survey, knew the correct dosage for VAC, although the majority did know that VA prevents night blindness and know at least one sign of VAD. The VACs found in stock at two of the six health stations were expired.

Information on the general nutritional status of the project population is available from the CCF project sites located near the city of Debre Birhan. It should be noted, however, that the CCF sites are areas of intensive intervention to a relatively small population. The figures shown should not be extrapolated for the entire project area.

Nutritional status of children at four CCF Projects in Baso and Worana
Woreda, 1997 (Based on Weight-for-age measurements).

Project Name	Status			
	Normal >90%WA	Mild 75-90%WA	Moderate 60-75%WA	Severe <60%WA
Bakello	39(10.8%)	8(58.1%)	105(29.3%)	6(1.6%)
Mush	76(23.4%)	52(16.0%)	141(43.5%)	55(16.9%)
Gudoberet	53(13.2%)	85(21.0%)	238(58.9%)	28(6.9%)
Keyet	77(18.4%)	125(29.9%)	132(31.6%)	83(19.9%)

Note.

Normal nutrition	= > 90% of weight for age standard
Mild malnutrition	= 75 - 90% " " " " "
Moderate malnutrition	= 60 - 75% " " " " "
Severe malnutrition	= < 60% " " " " "

Current Beliefs and Practices.

There are a variety of cultural beliefs and practices that will be of issue to the nutrition intervention of this project. During illness it is not uncommon for mothers to withhold food or liquids **from** the child. The KPC survey showed 33.6% of mothers gave less or stopped breast-feeding completely during diarrhea, while 40% gave less or stopped feeding the child completely during diarrhea. Breast-feeding is also **affected** by cultural habits. Many mothers throughout Ethiopia are not in the habit of initiating breast-feeding immediately after childbirth. In the project area, 30% of mothers that had ever breastfed, did so **after** three days. Other harmful practices include giving the infant a traditional laxative after birth to cleanse the stomach and the feeding of women and children after the adult males in the family.

3. **MOH Policy**

The Ministry of Health has recently adopted an EPI-plus program to link VAC distribution to measles vaccination. In addition, the MOH is promoting the use of capsules by the MCH program to post-partum women and for treatment of xerophthalmia, measles and other diseases. As stated earlier, Ethiopia should be receiving salt fortified with iodine **from** Eritrea to address iodine deficiency.

In relation to general malnutrition, the MOH does not conduct or encourage supplementary feeding centers. **PVO/NGOs** are encouraged to conduct nutrition education sessions and to establish education centers. The Ethiopian Health and Nutrition Research Institute (EHNRI) plays a key role in setting guidelines and policy for the MOH. This Institute has also collected extensive **data** on the nutritional and micronutrient status of the country's women and children. A nutrition policy is in the process of being drafted by EHNRI and will be available in the coming **year**.

4. **Program Approach**

The following steps will be taken to create a targeted nutrition strategy to improve community feeding practices and to increase the consumption of micronutrient rich foods:

1. Development of IEC. Due to strong cultural habits and the importance of nutrition in the project area, it was felt that an initial investment into an IEC targeted specifically to the project area is warranted.

a. Collection of focus group and qualitative data on feeding patterns of children by age group. The project will collect data on the number of times a child is fed, type, quantity and quality of foods, cooking utensils, local foods and practices.

b. Materials will be developed based on current materials available from the MOH and the EHNRI. Although materials will be specifically targeted to the project community, successful materials produced by the government will be utilized when possible. The IEC will not be limited to printed materials and may include the use of plays, skits and music. Materials will be field tested as needed before finalizing.

c. A local consultant will be hired to provide technical assistance to this intervention. Dr. Gebriel, former Director of the EHNRI is being considered as the consultant to develop the IEC for all of the project interventions. Dr. Gebriel has extensive experience in community level qualitative research, in the development of educational materials, and in the assessment of nutrition based microenterprises.

d. The TIPS methodology (Griffiths et al.) will be considered for use in the development of the IEC, however, the local consultant in collaboration with IEF and CCF may decide to **modify** TIPS or use a different methodology, depending on what is most appropriate given the local setting.

2. Utilization of IEC at community level.

a. Training of MOH and project personnel in use of IEC materials and in community mobilization techniques.

b. Monitoring of health educators. A monitoring system will be developed for the IEC to ensure proper use by health workers and volunteers. The system will likely monitor the use of participatory techniques, use of materials, correct information, etc. The monitoring system will be incorporated into the project's standard supervisory plan.

c. Application of QA methods to nutrition education. The IEF has developed QA indicators for use in nutrition education (OMNI Research, 1997). These indicators and the QA methodology will be applied in Ethiopia following MOH and staff training in QA.

d. Evaluation of the **IEC's** effectiveness. The IEC will be evaluated by the KPC indicators which will measure the changes in knowledge and behavior which will be promoted by the IEC.

3. Microenterprise: Assessed and Developed. Ethiopia suffers particularly high rates of malnutrition during the weaning period. For this reason our nutrition strategy employs a pilot project for a sustainable high-energy and micronutrient rich product that can be given to children after four months of age. This concept is based on research by the Johns Hopkins Division of Nutrition and Pennsylvania State University. ^{9,10}

a. The feasibility of a weaning food microenterprise will be assessed. The assessment will take place immediately following the development of the IEC and will likely be conducted by the same consultant. Aspects of the pilot related to the economic feasibility (price and marketability) will be handled by an external consultant linked to **IEF's** regional cost-recovery programming and/or in consultation with CCF's Washington based micro-credit consultant. (For further details please refer to the Technical Assistance and Sustainability Sections.)

b. If a suitable weaning food, based on a local product enriched to produce a high energy and micronutrient substance, is identified and is considered marketable, 2 pilot microenterprises will be initiated.

c. The 2 pilot enterprises will be monitored to determine success based on maintenance of the energy and vitamin content and sales/demand.

d. As it is likely that this effort will take more than two years to develop, plans to scale up the pilot activities would need to be incorporated into a final evaluation for implementation in the second phase of the project.

4. VAC Distribution. The approach for this intervention will be to assist the MOH with the EPI-plus program but also to get **VACs** to the community through **TBA**s, for post-partum women and through Drug Depots.

a. The project will support MOH EPI-plus program by providing vitamin **A** capsules, promoting campaigns through community linkages, and providing other general support as needed.

b. The project will monitor the success of the **VA/EPI** campaigns through PA level estimates of coverage rates. **PA**s with low capsule coverage will be targeted for additional campaigns by program personnel.

c. **TBA**s will be trained to dispense **VAC**s to post-partum women.

d. **VAC**s will be dispensed at the community level through Drug Depots by trained **CHW**s.

e. Work with the MOH to add VA notation on children's health card.

f. Train project and MOH **staff in VA**.

g. The objectives of the VAC distribution component of the nutrition intervention are as follows:

-Increase coverage of VAC to post partum women from 4.3% (oral report) to 30% (on card).

-Increase coverage of VAC to children from 6% (oral report) to 75% (on card).

5. Monitor fortification of salt at community level. In order to assist with the fortification of salt effort, the project will perform analysis of salt from a sub-sample of homes within each cluster of the KPC mid-term and final surveys. Simple calorimetric kits will be obtained from UNICEF for this purpose. Information will be shared with the MOH and with OMNI.

Breast-feeding

1. Knowledge and Practice

The practice of breast-feeding is high throughout the project area and the country as would be expected. Formula feeding does not appear to be a concern in the area. Problems associated with breast-feeding are late initiation (30.7% of **mother's** stated initiation of breast-feeding **after** three days) and the early introduction of foods or fluids (only 17.7% of 0 to 3 month-olds were exclusively breast-feeding). In general, hot water with sugar or a bolus of uncooked butter are the substitutes for breastmilk before initiation. Delaying the initiation of breast-feeding is a cultural practice found throughout Ethiopia.

2. MOH Protocols and Breast-feeding Activities in the Area

The MOH promotes exclusive breast-feeding to 4 to 6 months of age in accordance with WHO policy. The Ministry is well aware of the cultural barriers to early initiation of breast-feeding and has made this a priority area of concentration for breast-feeding education. Currently there are no groups specifically addressing breast-feeding concerns in the project area.

3. Approach

Community level education targeted to women of child-bearing age will be the cornerstone of this intervention. The development of the IEC, which will include messages and materials targeted to project mothers is **fully** described in the nutrition intervention section of this DIP. The project will specifically focus on improving initiation practices and on promoting exclusive breast-feeding up to 6 months of age. Increases being suggested are modest as it is felt that overcoming long-held beliefs will be particularly difficult. The following indicators will be measured to report on project progress:

- Increase exclusive breast-feeding from 17.7% to 40%.
- Increase the percentage of women breast-feeding within one hour of delivery from 21.8% to 40%.

4. Other

All of the questions posed in section D.4 of the DIP guidelines have been answered in the sections above regarding the breast-feeding intervention.

D.5. Innovations which may be scaled up

The project will pilot two weaning food microenterprises based on on-going work in Kenya with women's cooperatives by Pennsylvania State University. The microenterprise will be assessed technically **from** a nutritional point of view, to determine if the energy and micronutrient contents are adequate and to determine if the product is acceptable to mothers and their children, and from an economic point of view, to determine the sales and marketability and to set prices. If the pilot project is successful the project will be scaled up during a potential second phase of the CSP.

D.6. Schedule of field activities

See attached time line of activities, Annex II.

Section E. HUMAN RESOURCES

E.1. Organizational chart

See attached organizational chart, Annex III.

E.2. Health workers

The CSP will be **staffed** by two senior staff, a Project Manager and Deputy Project Manager (see Annex VII, Biographical Sketches). Both hires are physicians with Master of Public Health degrees from Addis Ababa University. Administrative support will be provided by an accountant

and other administrative staff. A total of five Health Experts will be hired to conduct trainings and supervise community health activities. The aforementioned staff will be paid monthly wages by the project and will work **full-time** for the project. At the community level, the project will be staffed similarly to the MOH. Seventy-five community level workers including 50 **CHWs** and 25 **TBAs** will be trained and paid according to MOH guidelines. At the household level, 200 volunteer Village Health Promoters (VHP) will be trained to support health activities and to promote attendance at health education sessions and campaigns. Volunteers will work between 1 and 10 hours per week depending on their availability.

MOH staff will be involved with the project throughout all interventions. Payments to the MOH will only be made during **training** and supervision activities, and will be paid on per diem basis as set by the MOH.

Currently the MOH has 13 Health Assistants and about five **CHWs** and **TBAs** functioning in the Woreda. The project will be responsible for supervising the community level personnel and will work closely with the Ministry to ensure that these personnel can be incorporated into the MOH system at a later date, beyond the life of this project.

Maintaining volunteers in the positions mentioned is a concern of the project. Information will be obtained regarding retiring volunteers so that project **staff** may monitor reasons for leaving and act accordingly to maximize volunteer retention. At this time it is expected that volunteers will retire primarily to care for ill family members or other family related concerns.

Below is a brief profile of the project's health personnel:

Type of Worker	Role
Project Manager	Supervise daily activities of project, responsible for administrative and managerial decisions, oversight of spending and annual workplans.
Deputy Manager	Supervise daily activities of project personnel, responsible for reporting to Project Manager, responsible for evaluating staff , responsible for tracking vehicle use and spending, coordinating with MOH and community leaders as needed, and provide technical support to staff and projects.
Public Health Expert	Coordinates health activities at the community level, supervises activities of CHW/TBAs and provides technical and managerial support to these workers as needed, reports to Deputy Manager, conducts trainings of staff and MOH.
CHW /TBAs	Conduct community level activities such as dispensing ORS and VACs , give community education sessions and trainings, assist with MOH EPI campaigns as needed, and coordinate with community leaders.
Village Health Promoters	Serve as liaisons to the community and to community leaders, promote EPI campaigns and other health activities as needed, attend VHP level trainings on health issues.

E.3. Supervision plan

The International Eye Foundation, as the prime grantee **will** work closely with CCF, the sub-grantee, to assure adequate procedures are in place for supervision of the CS program. However, direct supervision of the Child Survival Program will be the responsibility of CCF Headquarters and the CCF National Office.

The International Eye Foundation's role is primarily one of oversight. The individuals responsible for administrative, financial and technical oversight at the headquarters level are as follows:

Administrative - The Child Survival Coordinator, **Liliana** Riva Clement, MPH, will have the responsibility for routine coordination and communication between IEF and CCF Headquarters, and ultimate reporting to USAID. The Child Survival Coordinator will be assisted by the Director of Programs, John M. Barrows, MPH.

Financial - The Director of Administration and Finance, Edwin M. Henderson, will have the responsibility for financial oversight including monitoring the **IEF/CCF** sub-grant budget, expenses, monthly transfers and preparing financial reports to USAID. The Director of Administration and Finance will be assisted by the Child Survival Coordinator and the Director of Programs in the monitoring of program expenses.

Technical - The Child Survival Coordinator will have co-responsibility for technical backstopping including assisting CCF headquarters/National office in conducting surveys, preparation of implementation plans, intervention design, USAID reporting requirements, and evaluations. The Child Survival Coordinator will be assisted by the Director of Programs, John **M. Barrows**, MPH.

The Child Survival Program will be directly backstopped by CCF Headquarters **staff in** Richmond, Virginia. Primary responsibility for backstopping will be with Ms. Jill Covet-ton, MEW, Grants Officer with support from Mark Schemer, MPPM, Grant Coordinator and technical input **from** the Medical Advisor, Dr. Thomas Kerkering. The Financial Administrator, Ms. **Suzy** Connolly will have responsibility for ensuring that financial reports are received, reviewed and summarized for forwarding to IEF Headquarters on a monthly basis, and will manage the disbursement of funds to the field. Ms. Grady will make monthly funding requests to IEF Headquarters and will provide any and all data required by IEF for compliance with the A-133 audit.

CCF Headquarters will report to IEF periodically as required in the sub-agreement. Reports to IEF will include information on project activities, milestones completed, barriers to the completion of project activities **and** administrative and financial updates. These reports will be compiled **from** field reports which will be sent directly to CCF Headquarters. CCF will arrange for the project site to be visited at least two times per year. IEF will accompany CCF on at least one trip per year to coincide with major evaluations. CCF and IEF Headquarters staff will meet approximately quarterly in the first year, slowing to twice per year in the final year of project activities, unless otherwise agreed by IEF.

A “Financial Status Report” and “Federal Cash Transaction Report” will be completed quarterly by the IEF Headquarters office and submitted directly to USAID in compliance with the Cooperative Agreement and CFR 226.52. It will be the responsibility of CCF to report to IEF on a monthly basis regarding expenditures, as designed by IEF.

The CCF National Office in Addis Ababa will supervise the CSP. Primary responsibility for this will be handled by the Project Manager, Yoseph Mengesha, who reports to the CCF National Director Ketema Abebe. The day to day operations of the program will be managed and supervised by the CS Project Manager. All project health workers and community volunteers will report directly to the Deputy Manager. The CS Project Manager and the Deputy Manager are housed in Debre Birhan, at the project office, to ensure maximum supervision and involvement in community efforts. Visits will be made to the project areas on a monthly basis.

The Project Health Experts will directly supervise the community level activities of the **CHWs** and the **TBAs**. They will be responsible for visiting each of their 15 community level workers at least one time per month. In turn the **CHWs** and **TBAs** will be responsible for visiting each village promotor at least once every other month. A supervisory guideline will be developed for each level of worker to be filled out at each supervisory visit. Yearly evaluations of all CSP staff will be conducted by the Project Manager and Deputy Manager.

Brief quarterly reports have been requested by the USAID Mission in Addis Ababa. The CCF office in Ethiopia will deliver these reports directly to the Mission after review by CCF Headquarters. A copy of the quarterly report will be included as an annex to the monthly IEF reports.

E.4. Community committees and groups

The Peasant Associations (PA) are designated as the community groups within the project area. The current number of **PAs** in **Baso** and Worana Woreda is 23 and the number of urban dwellers’ associations (Kebeles) in Debre Berhan is nine. A total of 112 Peasant Villages are the subunits of the PAS. These PA’s and Kebeles have been utilized by the MOH as an effective mechanism for community mobilization efforts within the region. The MOH maintains demographic and geographic information on each of the PA’s and has a history of strong collaboration with these groups. The CS project will build upon this existing, working relationship.

PAS will be encouraged to assist with access to beneficiary families as well as helping to strengthen dialogue within the communities. These groups are expected to meet every month and the CSP will move to incorporate health education through the meetings. All levels of the CSP staff will work with the **PAs** in various capacities; senior level staff will visit the PAS periodically to maintain open communication about overall project and community goals, community level workers will maintain more constant communication with the PAS, giving health education seminars, **verifying** campaign population information and promoting health initiatives.

CCF's proven experience working through **PAs** to establish community based health systems will be **fully** utilized by the CSP. The project will expand the current relationships that CCF has in the areas surroundii the town of Debre Birhan to the more remote areas targeted by the CSP. In addition, the project will use the CCF model of providing budgets to communities to allocate funds for the child survival initiatives based on **community** priorities.

E.5. Role of country nationals

Country nationals have been employed to **staff** the Child Survival Program. These physicians and health workers have been trained in their respective fields, but will receive additional training in planning, budgeting, accounting, personnel management, financial management, computer use and all project interventions in support of continuing improvements in capacity of project personnel.

CCF headquarters staff has developed a strategic training plan which includes assessment of field capacity. This annual assessment identities strengths and weaknesses of the field staff This assessment will be conducted in late 1997 when all paid **staff** have been hired. Once the assessment is completed, The Program Manager at the CCF Field Office will coordinate training and field visits, if necessary, **from** appropriate departments (ie. Finance and Human Resources) from CCF's National Office in Addis Ababa.

Field staff will also make visits to CCF headquarters in Richmond for assessment and training opportunities. Headquarters staff is currently planning a week-long meeting of **all USAID funded** project **staff**, specifically the CS Project Managers. The meeting is intended to cross-train **staff** through the experiences of existing programs and new programs. This meeting is planned for 1998.

As possible, other country nationals will also be hired as consultants to the project. As is currently scheduled, the technical assistance for the development of the IEC strategy for the project will likely be conducted by Dr. Gebriel, a country national.

E.6. Role of headquarters staff

As previously stated, this project is being managed at the field level by the sub-grantee, CCF, with oversight by the prime grantee, IEF. For this reason, the project must address the role of two headquarters' **staff**.

The International Eye Foundation will oversee all activities conducted by CCF. CCF Headquarter's staff will report to IEF throughout the life of the project. CCF staff will monitor their field staff and report to IEF on progress based on annual workplans which will be set by CCF, IEF and the MOH. The IEF will also provide technical support given its experience with over 26 project years of child survival programming. Headquarter's staff from CCF and IEF will meet on a quarterly basis in a designated location to review reports and project progress. The IEF will accompany CCF on major site visits which will coincide with the baseline, mid-term and final evaluations. To date, IEF accompanied CCF for an initial administrative visit and for the execution of the KPC survey in July of 1997. The IEF has been significantly involved in the DIP development process and expects to oversee development of all annual reports and the final evaluation with less direct involvement. A phase-down of **IEF's** role as overseer of activities is programmed over the course of the project.

CCF Headquarters will monitor its field activities and will have primary backstopping responsibilities. They will be able to access technical assistance **from** a variety of sources including IEF. Visits to the project site will be made twice yearly by CCF **staff** to ensure compliance with the annual work plan. CCF Headquarters will monitor the performance and capacity of field staff and will ensure coordination with the MOH and trainings to build capacity as needed.

Section F. PROGRAM MONITORING HEALTH INFORMATION SYSTEM

F.1. **HIS Plan**

The project strategy for the HIS plan is to collect the minimum amount of useful data to ensure maximum coverage of the project interventions. To this end, the project will use existing PA census data, which is very reliable, to estimate target populations for each intervention. There will be no house-to-house monitoring or tracing as it has been deemed inappropriate and costly at this time in the project life due to: 1) distances between villages, 2) lack of community personnel and 3) extremely low level of CS indicators at this time. A broader approach, at the PA level is sufficient to monitor the campaign activities of the project.

For each PA an estimate of the target population of women and children will be made prior to each **EPI/VA** campaign. The estimates, obtained through the **Zonal** Health Office, will be verified and upgraded with the PA leaders and community members. During vaccination campaigns, the number of women and children vaccinated and receiving VA will be recorded by project personnel and compared to PA estimates for an estimated calculation of coverage. At the end of a campaign, coverage data will be compiled for each PA and shared with the MOH to devise a default strategy. The project will work with the MOH to conduct mini-campaigns in the areas with the lowest coverage.

F.2. **Data variables**

Project level and quality indicators will be monitored on an on-going basis as part of the project's supervision activities. Coverage data for the EPI and VA campaigns will be monitored at each campaign. KPC and facilities survey data will only be determined at baseline, mid-term and final points of the project cycle.

Project level process indicators:

- No. of trainings by type of training and worker
- No. of community level education sessions by type (attendance information collected)
- No. of supervisory visits by type of worker and area
- No. of meeting with community or MOH (attendance information collected)
- No. of **VACs**, immunizations, ORS and other commodities distributed
- No. of volunteers actively working for the project

Coverage indicators

- Coverage data at **EPI/VA** campaigns by PA (estimated)

Quality indicators

- No. of refrigerators with acceptable and unacceptable temperatures
- No. of **cold** boxes with acceptable and unacceptable temperatures
- No. of functioning refrigerators and cold boxes per **facility**
- Comparison of pre and post-test scores for education sessions

RPC / facilities survey indicators

- Incr. % children **12-** 24 months of age fully immunized **from** 15.5% to 80%.
- Incr. mothers with TT (at least 2 TT) **from** 22.3% to 80%.
- Observe no stock outs of any EPI vaccines at health facilities in 3 months prior to final facilities survey.
- Observe no out-of-range temperature readings in 3 months prior to final **facilities** survey.
- Incr. number of mothers with child health card from 26.3% to 80%.
- Incr. number of women with a TT vaccine record (TT or child card) from 30% to 80%.
- Incr. % of women that know measles should be given at 9 months **from** 30% to 60%.
- Incr. proportion of health facilities w/functioning ORT come from 60% to 100%.
- Observe no stock outs of ORS at health facilities in 3 months prior to final facilities survey.
- Increase use of ORS/ORT **from** 6% to 80%.
- Increase the % of mothers that give increased fluids **from** 13.5 to 30%.
- Increase the % of mothers that give increased food **from** 6.2 to 30%.
- Increase the % of mothers giving increased amounts of breastmilk **from** 13% to 30%.
- Increase exclusive breast-feeding **from** 17.7% to 35%.
- Increase the % of women breast-feeding within one hour of delivery **from** 21.8% to 35%.
- Increase coverage of VA to pp women **from** 4.3% (oral report) to 30% (on card).
- Increase coverage of VA to children **from** 6% (oral report) to 75% (on card).
- Increase the % of mothers giving solid and semisolid foods to 6 to 10 month olds from 46.7% to 65%.
- Increase the % of mothers that know VA prevents night blindness **from** 8.7% to 50%.

Other data to be collected

The project will collect information regarding volunteer drop-out to monitor this potential problem. In addition, information will be collected through the QA assessments on customer satisfaction, worker performance etc. The development and future monitoring of the IEC strategy may also require on-going collection of qualitative data about mother's reaction and acceptance of the education materials. Although information for the QA and IEC may be continual it will not be considered part of the HIS.

F.3. **Data analysis and use**

All data for the HIS can be hand tabulated and will be compiled into quarterly and yearly reports for use with the MOH and with CCF and IEF project personnel for managerial feed-back. EPI coverage data will be shared with communities through educational sessions to **identify PAs** with high and low coverage status.

F.4. **Other HIS issues**

Because this project is not proposing to collect individual health data, confidentiality should not be a major concern. This issue will be covered in the context of other professional training received by the staff and the MOH to encourage respect and professionalism at all times. The HIS will be fully **functioning** within the first year of the project activities, given its simple nature.

Section G. SUSTAINABILITY STRATEGY

G.1. **Sustainability goals, objectives and activities**

The project's sustainability strategy will approach the problem from the community level, increasing awareness and demand for services, and from **the** service delivery level, increasing the capacity of the MOH to improve the **quality** and quantity of **services** available.

The MOH will retain its lead role in the implementation of the EPI intervention. The project **will** not supply vaccines nor supplies but will upgrade facilities from their current level to ensure **all** health stations are prepared for outreach activities (this may include a one time purchase of necessary supplies). Further, the project will train MOH personnel in the basics of EPI and also in management and logistics as needed, to overcome barriers which exist in getting supplies from the **Zonal** level (**Debre Birhan**) to outreach levels. Training in Quality Assurance will be provided to the MOH beginning about one year into program activities. QA's focus on process and focus on decision making control at the level of work performed fits with a sustainability strategy; empowering MOH personnel to overcome existing problems with EPI and to continually monitor the process in the future without assistance from the project. QA additionally supports the aims of decentralization being implemented by the government.

The following sustainability goals have been set by the project (goals, objectives and activities are listed in Table C):

1. Increase capacity of MOH
2. Increase community demand for MOH services
3. Improve the PA's ability to organize health care.
4. Train community level health workers (**CHWs, TBA's** etc) based on MOH curriculum.
5. Establish community level Drug Depots (@D's) to increase availability of drugs.
6. Establish weaning foods microenterprise.

TABLE C: SUSTAINABILITY GOALS, OBJECTIVES AND ACTIVITIES

Sustainability Goals	Objectives	Activities Required
1. Increase capacity of MOH	<ul style="list-style-type: none"> a. Train MOH in CSP Interventions b. Train MOH in QA c. Train MOH in management issues (logistics, administration, supervision etc) 	<ul style="list-style-type: none"> a. 100% of MOH staff attend at least one training b.1. Train 3 or more MOH staff in QA. b.2. MOH independently executes QA assessment of EPI intervention. c. Train upper level MOH personnel in management issues, at least 2 sessions per year.
2. Increase community demand for MOH services	<ul style="list-style-type: none"> a. Improve MOH awareness of community needs b. Improve MOH services (CSP interventions) c. Monitor community demand through periodic assessments 	<ul style="list-style-type: none"> a. Provide TA to MOH in customer focus (through cost recovery TA). b. Train MOH in QA. c. Perform exit interviews of project community at mid-term and final evaluations.
3. Improve the PA's ability to organize health care.	<ul style="list-style-type: none"> a. Work through PA's to organize health care activities oriented to community needs. b. Provide PA's with budgets for organizing health care. c. Monitor improvements in PA's capacity. 	<ul style="list-style-type: none"> a. Meet with each PA at least once per quarter to organize health activities. b. Give budgets based on community needs by end of year 2 (CCF model). c. Monitor improved capacity of the PA's using organizational capacity indicators (OCI).
4. Train community level health workers (CHWs, TBA's etc) based on MOH curriculum.	<ul style="list-style-type: none"> a. Prepare CCF staff to be transferred to the MOH system in the future. 	<ul style="list-style-type: none"> a. Provide one month training yearly to at least 75 CHW's and 25 TBA's to meet MOH guidelines for training.
5. Establish community level Drug Depots (DD's) to increase availability of drugs.	<ul style="list-style-type: none"> a. Increase the availability of ORS and other medicines at the community level. 	<ul style="list-style-type: none"> a. Establish at least 14 DD's in the project area.
6. Establish weaning foods microenterprise.	<ul style="list-style-type: none"> a. Increase the consumption of proper weaning foods in the 6 to 10 month old age group. 	<ul style="list-style-type: none"> a. Develop an acceptable high energy weaning food for sale to communities. b. Assess market situation and establish 2 pilot weaning food microenterprises.

G.2. Community involvement

Community level volunteers are standard components of most successful **child** survival programs. In this case, CHWs and TBAs working within the MOH system are **already** manning outreach sites. **CHWs** and TBAs trained by the project **will** undergo exactly the same training and **will** be paid according to MOH scales in order to incorporate them into the MOH system in the future. **TBAs** are an especially important link to community women as almost **40%** of women interviewed for the KPC cited a TBA had been present for the birth of her child.

The communities of the project area are already **well** organized into PAs. The head of the PA is familiar with his community and sets examples for the community. The MOH **recognizes** the importance of the PAs and is already utilizing them as a means of mobilizing and accessing their members. The project **will** utilize a similar strategy; working with PAs to promote maternal and **child** health initiatives and to monitor beneficiaries. In addition the project will utilize CCF expertise in mobilizing and empowering communities to direct their own health activities according to local needs. Budgets will be provided to selected PAs and project staff will work to build the capacity of the group to handle the funds and to direct the child survival interventions in their community. The increased capacity of the PAs will be measured by appreciative inquiry through the use of organizational capacity indicators (OCI) as developed by Christian Reformed World Relief Committee and/or similar tools such as the Discussion-Oriented Self-Assessment (**DOSA**) developed by USAID. Indicators will be selected prior to the start of formal activities with the PAs, to collect baseline and follow-up data on their progress.

G.3. w-over plan

The project is not planning to phase-over any interventions or personnel in this stage of the child survival agreement. However, personnel titles, responsibilities, pay and training are **all** modeled on the current MOH system in preparation for hand-over in the future.

G.4. Cost recovery

The Ministry currently charges for services (not including antenatal and well baby visits) and for many medicines (including ORS but not VA). An average illness visit costs about 5.60 Birr. Partially due to this **cost** recovery system, there is a lack of availability of medicines beyond the health center level. The MOH has proposed the creation of depots which would be located at the village level but the idea has not been implemented. This project will assist the MOH in implementation of Drug Depots (a.k.a. Drug Revolving Funds) to make a variety of medications **more accessible to communities**. **Drugs to be included at the depots will be** decided by the MOH, but they will likely include antimalarials, condoms, topical antibiotics including tetracycline for conjunctivitis, ORS etc.

During the facilities survey interviews were conducted with mothers and facilities staff regarding barriers to health care. Few mothers or personnel noted the **cost** of services or medications to be an issue in obtaining care. This survey, however, was very limited in scope. As part of the implementation of Drug Depots, the project would propose as assessment of the

current cost-recovery system, making recommendations on the location of the depots and costs of supplies (ultimately to be decided by the MOH). The International Eye Foundation will provide technical assistance to this assessment from its regional cost-recovery programs. The IEF has experience in assessing customer needs and in price setting to ensure sustainability of health care services. **CCF's** experience with village pharmacies in Guatemala **will** also be accessed for applicable technical assistance. In addition to an assessment and recommendations for the depots, the consultant would also provide ideas for other cost recovery methods which would be shared with the MOH for potential inclusion in second half of the project.

In addition to Drug Depots, the project has described a microenterprise based on the sale of a nutritious weaning food. This microenterprise will be started with community women and will utilize a recipe very similar to the currently accepted weaning food. Improvements will be limited to energy and micronutrient content and taste. Two pilot enterprises will be established and monitored. If successful, the enterprise will be scaled up to offer the food to a wider community. **One** possible model for this pilot activity is the research by the Johns Hopkins Division of Nutrition and the ongoing 'Nutribusiness' work of Pennsylvania State University. The project will adapt the research of these two institutions and others as applicable to be practical in this PVO setting.

Section H. BUDGET

This narrative accompanies the detailed budgets for both USAID and **IEF/CCF** matching contributions found in the attached spreadsheets. It is a revised narrative as submitted to the USAID Office of Procurement on June 25, 1997. The detailed budget spreadsheets are provided for IEF Headquarters, CCF Headquarters and CCF Field budgets. The **funding** available for this project originated **from** an earlier IEF proposal for child survival programming in Eritrea. As of January 1, 1997 remaining **from** expenditures in Eritrea was \$824,578. This amount is applied to the current **IEF/CCF** child survival project to be administered by CCF through a sub-grant agreement. The IEF Headquarters budget is, \$105,776. The CCF portion is \$718,802 (**\$129,313** headquarters and \$589,489). Both organizations will exceed the match requirements. The IEF will match the project by 26.7% (\$5,819) and CCF will match by 27.8% (311,898). Given total expenses, that is including the Eritrea project, the IEF match portion increases to 35.4% (69,686).

The project Cooperative Agreement (CA) was amended on July 8, 1997. The new end date of the project is September **29, 2000** and the new CA number is FAO-A-00-95-00018-00 (changed from FAO-0500-A-00-50 18-00).

The budget presented with this DIP has not been changed from that submitted with the proposal. This is due to the fact that the budget is undergoing final appraisal with the Ministry and due to the nature of these negotiations the budget should not be amended at this time. Minor changes are anticipated to the field salaries and consultant line items as stated below. These changes should not be significant, however, a revised budget will be submitted to USAID as soon as the process is complete.

Minor adaptations to the budget which are anticipated to update the proposal budget with new **or** amended plans in the DIP include:

1) Determination of salary for **CHWs**. Current salaries and stipends budgeted for outreach staff may be amended as requested by the MOH to assure compliance with the Ministry salary structures. The MOH has not made a final determination at this time concerning a monthly salary for CHWs versus a community-based stipend.

2) Consultants. The amount of effort to be contributed to the project by consultants has increased **from** the proposal to the DIP, although not significantly. Cost-recovery and EPI consultants have been added but are anticipated to be relatively inexpensive given that they will be accessed from in-country or regional sources. The amount for Quality Assurance support to the project, **will** likely remain unchanged or even decreased if the TA can be obtained through IEF.

The following is a detailed narrative of the budget by organization:

IEF Headquarters Budget

1. Personnel

A. International Office staff Headquarters backstopping staff for technical and administrative support include the Child Survival/Vitamin A Coordinator (15 percent **@ \$46K PA**), responsible to daily backstopping of CCF Richmond and technical visits to the field project. Additional administrative support includes the Director of Administration and Finance (2.5% **@ 49K PA**) who has ultimate responsibility for financial reporting, and the Director of Programs (2.5% **@ 49K PA**) who provides additional technical and administrative support. The match side includes 5% and 2.5% of the CSNA Coordinator, **DoAF** and **DoP's** salaries respectively.

B. Insurance & Taxes: Headquarters backstopping **staff** fringe benefits are calculated at 30% (10% pension; 7.65% social security; 6.5% medical; 0.85 unemployment insurance/other; 5% vacation/sick leave).

2. Travel & Per Diem: Travel costs include domestic transportation allowances (\$25) to travel to Richmond four times per year for coordination meetings; partial airfare and per diem costs to cover expenses attending professional meetings (IVACG and Annual PVO Headquarters Child Survival Conference) and are split between USAID and IEF. Other costs include international airfare and related travel costs for the Child Survival Coordinator to make 7 trips to Ethiopia LOP for technical assistance during key events. There is one more airfare budgeted than the CCF Headquarters (6) to cover the expenses of the Project Advisor's departure from Eritrea in January. One round-trip airfare is calculated at \$1,700 and the average trip is 15 days at \$125 per diem/day.

3. Consultancies: The costs of consultant services are budgeted to support technical assistance to IEF and CCF in the area of financial sustainability and social enterprise development. These services will be solicited from the Sustainable Development Services project during the first year so that a sustainability plan will be incorporated into the DIP.

4. Procurement: Costs only include office supplies necessary to undertake the project.
5. **Other** Direct Costs: other costs include postage and courier costs. The costs of relocating the previous Project Advisor **from** Eritrea are budgeted (\$7,500). On the match side \$240 per year is budgeted for **telephone/fax/email** costs. Where appropriate an annual 5% increase is calculated.
6. **Indirect** Costs: Indirect costs (17.82%) have been computed on all IEF project costs except capital equipment over \$500. IEF's most recent indirect cost rate agreement for both headquarters and field operations may be found in Attachment XIV submitted earlier.

CCF Headquarters Budget

1. Personnel

A. International Office **staff**: CCF Headquarters backstopping **staff** for technical and administrative support include the new Grants Officer (25 percent @ **\$45K** PA), responsible to daily backstopping of the project and to liaise with US AID in Washington, D.C. On the match side 10% of the Grants Coordinator and Director of Finance are budgeted.

B. Insurance & Taxes: Consistent with CCF personnel practices **fringe** benefits are calculated at a rate of 21 percent. This is budgeted for positions funded partially by USAID and will cover FICA, social security, health and life insurance, pension contribution and other associated costs.

2. Travel & Per Diem: Travel costs include domestic transportation allowances (\$25) to travel to Washington D.C. four times per year for coordination meetings; partial airfare and per diem costs to cover expenses attending professional meetings (IVACG and Annual PVO Headquarters Child Survival Conference) and are split between USAID and CCF.

Other costs include international airfare and related travel costs for the Program Manager to make 6 trips to Ethiopia LOP for technical assistance during key events. One round-trip airfare is calculated at \$2,200 and the average trip is 9 days at \$150 per diem/day.

3. Consultancies: No costs are budgeted.

4. Procurement: Costs only include office supplies necessary to undertake the project.

5. **Other** Direct Costs: Other costs include telephone, FAX and e-mail communication with program **staff in** Ethiopia averaging \$75 month between Addis Ababa and Richmond is estimated at \$75. Postage & Shipping costs between Addis Ababa and Richmond is estimated at \$50. Half of the costs (approximately \$6,600) for the required OMB A-133 audit are allocated as a direct expense. Where appropriate, an annual 5% increase is calculated.

6. Indirect Costs: **CCF's** current **NICRA** for Fiscal Year 1995 is 27.22%. This rate has been applied to all direct costs except capital assets greater than \$500.

CCF Field Budget

1. Personnel:

A. CCF Ethiopia field **staff**:

- 1) Project Coordinator: 1 Salary of **\$450/month**.
- 2) Health Specialists: 4 specialists, salary of **\$350/month**.
- 3) Secretary (Computer Literate): 1 Salary of **\$150/month**.
- 4) Accountant: 1 Salary of **\$150/month**.
- 5) Driver: 1 Salary of **\$80/month**.
- 6) Cleaner: 1 Salary of **\$35/month**.
- 7) Custodian: 2 watchmen, salary is **\$35/month**.

- 8) Health Trainers: 52 Health Trainer/Supervisors, to train/supervise 650 health promoters. Health Trainers are phased in during years one and two. A stipend of \$10 per month is allotted.

- 9) Health Promoters: 650, each responsible for organizing communities to receive services and providing basic preventive health messages to 40 households. Two dollars per month is allocated for an incentive (to be determined). Health Promoters are phased in during years one and two. During years three and four incentives will be phased out of the project as other community sources are phased in.

- 10) National Office Staff On the CCF match side, four National Office staff are budgeted.

B. Fringe Benefits: Insurance and Taxes: Nine percent of salaries. This is consistent with other CCF staffs fringe benefits. Excluded are stipends and incentive payments.

2. Travel & Per Diem:

A. International: Three airfares over the LOP are budgeted for CCF Ethiopia to attend professional meetings (eg, IVACG in Cairo 1997) based on an airfare at \$1200 and 6 days per diem at **\$100/day**.

B. Domestic: National Office staff will travel to the field for routine monitoring and evaluation purposes. \$700 has been budgeted to cover estimated fuel and per diem costs.

C. Ministry of Health: MOH personnel are the primary vaccinators at six sub-district sites and at other outreach centers. The cost is calculated on the basis of reaching vaccination sites outside static clinic station area (48 vaccination sites x 6 visits per year x 2 days each visit x 2 persons each x \$5 per diem/day). These costs will be phased out by 25% per year as the MOH increases its support and as other community support becomes available.

D. Training: There are a number of training activities during the life of the project including:

- 1) Training of Trainers: for core trainers budgeted at 25 persons (**CCF/MOH**) x \$5 per diem/day x 14 days. In years two and three this training will be phased out.
- 2) Core Trainer/Supervisors: for 52 **trainers/supervisors** budgeted at 52 persons x \$5 per diem/day x 14 days. Half of the trainers will be trained in year one and the remainder in year 2. In year 3 and year 4 the training will be reduced to 7 days and 3 days respectively.
- 3) Health promoters: for 650 health promoters budgeted at 650 persons x \$5 per diem/day x 14 days. Half of the promoters will be trained in year one and the remainder in year 2. In years 3 and 4 training will be reduced to 3 days.
- 4) **Replacement/refresher**: new health promoters will be trained to replace those that leave (moved, death, new jobs, lost interest). Approximately 20% attrition is budgeted for year 2, 3 and 4.
- 5) Other community: for 462 health committee members (11 persons x 42 **PAs**) x 5 per diem/day x 3 days. Half of the **PAs** will be trained in year one and the remainder in year 2; with annual training for 462 in year 3 and year 4, but with 25% less costs budgeted in the **final** year.
- 6) Other MOH: for 25 MOH staff budgeted at 25 persons x \$5 per diem/day x 5 days. The same amounts are budgeted for years 2,3, and 4. This training supports the MOH with program planning, technical updates, financial/logistical management, monitoring, and evaluation.
- 7) Results workshop: for **MOH/CCF/community** staff budgeted at 10 persons x \$15 per diem/day x 4 days annually. These workshops are intended to analyze and communicate project accomplishments among key stakeholders from the MOWCCF/community/donors.

3. Consultancies:

A. Consultants include the costs of an Information, Education and Communication specialist to assist the project develop its IEC strategy. These costs include, if needed, airfare (**\$2,200, 25** days fee at \$300, and 30 days per diem at \$150). A local consultant services will be considered. Other costs include costs to train and conduct facility surveys and quality assurance monitoring and evaluation exercises. These costs are calculated at a total of 10 persons x \$15 per diem x 7 days.

B. Mid-term and final evaluation: Costs include professional fees (**\$300/day**), air fare (**\$2,200/trip**; USA/Ethiopia/USA), and per diem (**\$150/day**) for one-external evaluator in year 2 and year 4 over approximately 17 days consulting time.

4. Procurement:

A. Supplies: include office supplies (paper, diskettes, cartridges and other materials) estimated at \$250 month; 24 tape players and recorders (**@\$200**) are needed as teaching tools. **Office** furniture such as tables (eight), chairs (ten), **filing** cabinets (two) and bookshelves (two) will be needed. A total of **\$3,000** has been budgeted. On the CCF match side \$3,000 is budgeted for drugs and vitamin A capsules.

B. Equipment (Capital): On the CCF match side, \$45,000 is budgeted for vehicles and computer equipment.

5. Other Direct Costs:

A. Vehicle operations: include the cost of gasoline/oil on the basis of a vehicle having an **80-liter** tank at current fuel costs and being filled twice a week; maintenance and spares based on the average annual cost for CCF vehicles (**\$2,300**), and; vehicle insurance based on the present cost of a policies in Ethiopia averaging approximately \$350 per year.

B. Office operations: include rent of office space at \$3 15 per month; telephone&&mail at an estimated \$3,000 per annum; postage & shipping at **\$75/month** between Addis Ababa and Richmond, and; printing & publications costs for educational and **H/MIS** materials estimated at \$2,500 annually. On the CCF match side, \$95,912 are shown as “grants pass through” reflecting grants to CCF projects.

Where appropriate, an annual 5% increase is calculated.

6. Indirect Costs: **CCF's** current NICRA for Fiscal Year 1995 is 27.22%. This rate has been applied to all direct costs except capital assets.

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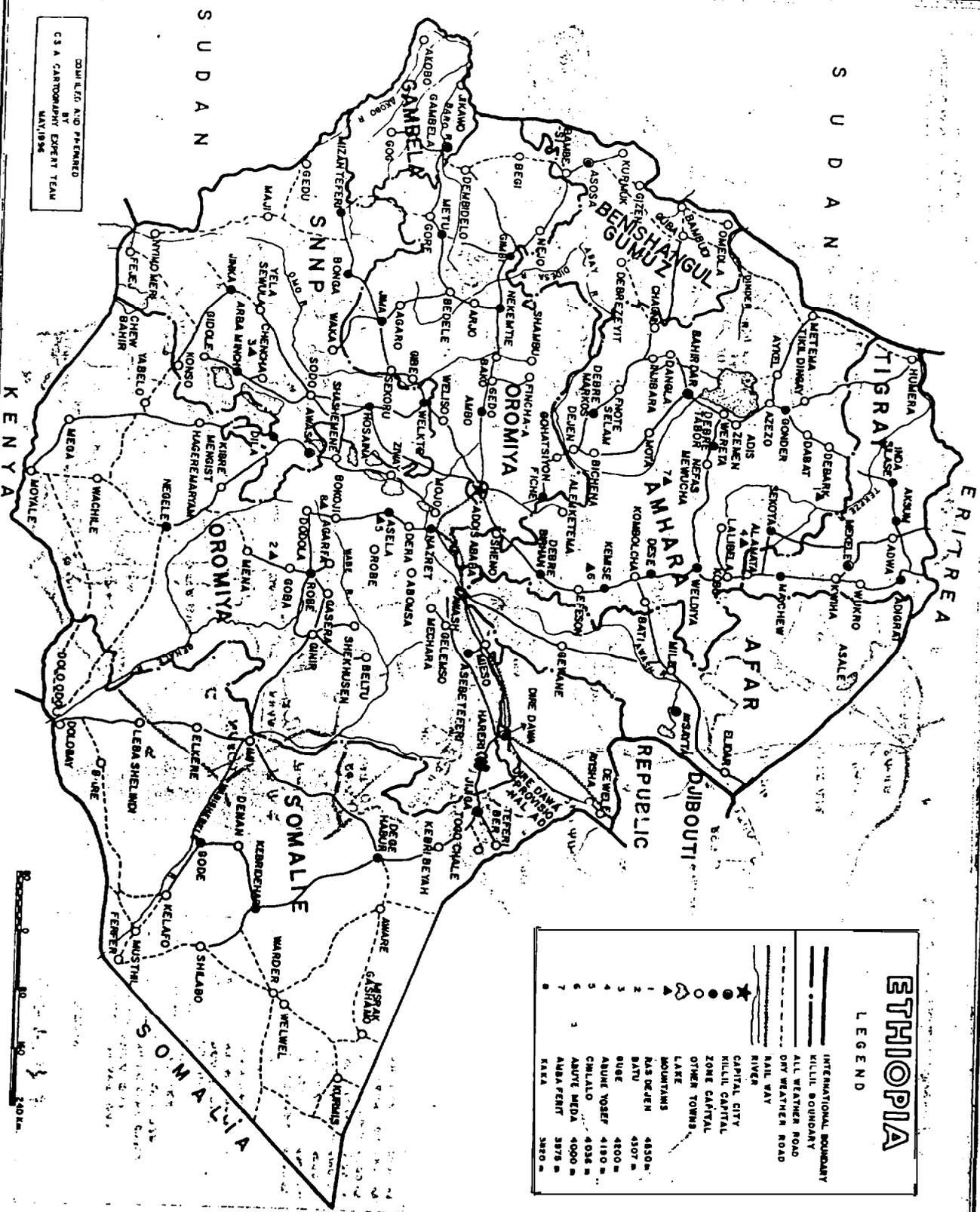
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Section J. ANNEXES

- Annex I: Maps
- Annex II: Project Timeline
- Annex III: CCF Child Survival Project Organogram
- Annex IV: Child Health Card
- Annex V: Tetanus Protection Card
- Annex VI: Ethiopia MOH Vitamin A Policy
- Annex VII: Biographical Sketches of Key Personnel
- Annex VIII: CV of Nutrition Technical Assistant
- Annex IX: Facility Assessment
- Annex X: Baseline KPC Survey Report
- Annex XI: IEF-CCF Sub-agreement
- Annex XII: Budgets

Annex I: Maps

COMPILED AND PREPARED
 BY
 C.S.A. CARTOGRAPHY EXPERT TEAM
 MAY 1984



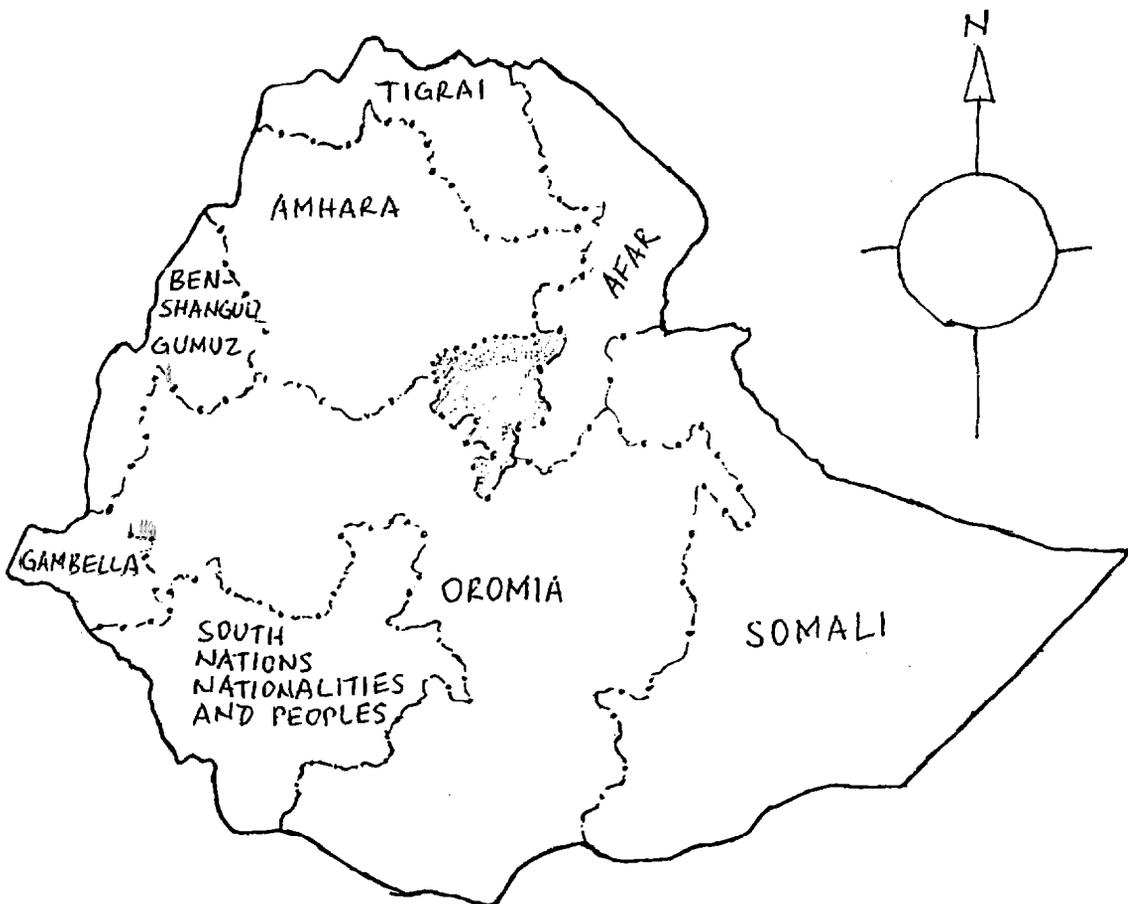
ETHIOPIA

LEGEND

- INTERNATIONAL BOUNDARY
- NILE BOUNDARY
- ALL WEATHER ROAD
- DRY WEATHER ROAD
- RAIL WAY
- RIVER
- CAPITAL CITY
- HILL CAPITAL
- ZONE CAPITAL
- OTHER TOWNS
- LAKE
- MOUNTAINS
- 5250 FT
- 4550 M
- 4507 M
- 3470 M
- 3000 M
- 4100 M
- 4180 M
- 4036 M
- 4000 M
- 3875 M
- 3820 M



ETHIOPIA
Country Map



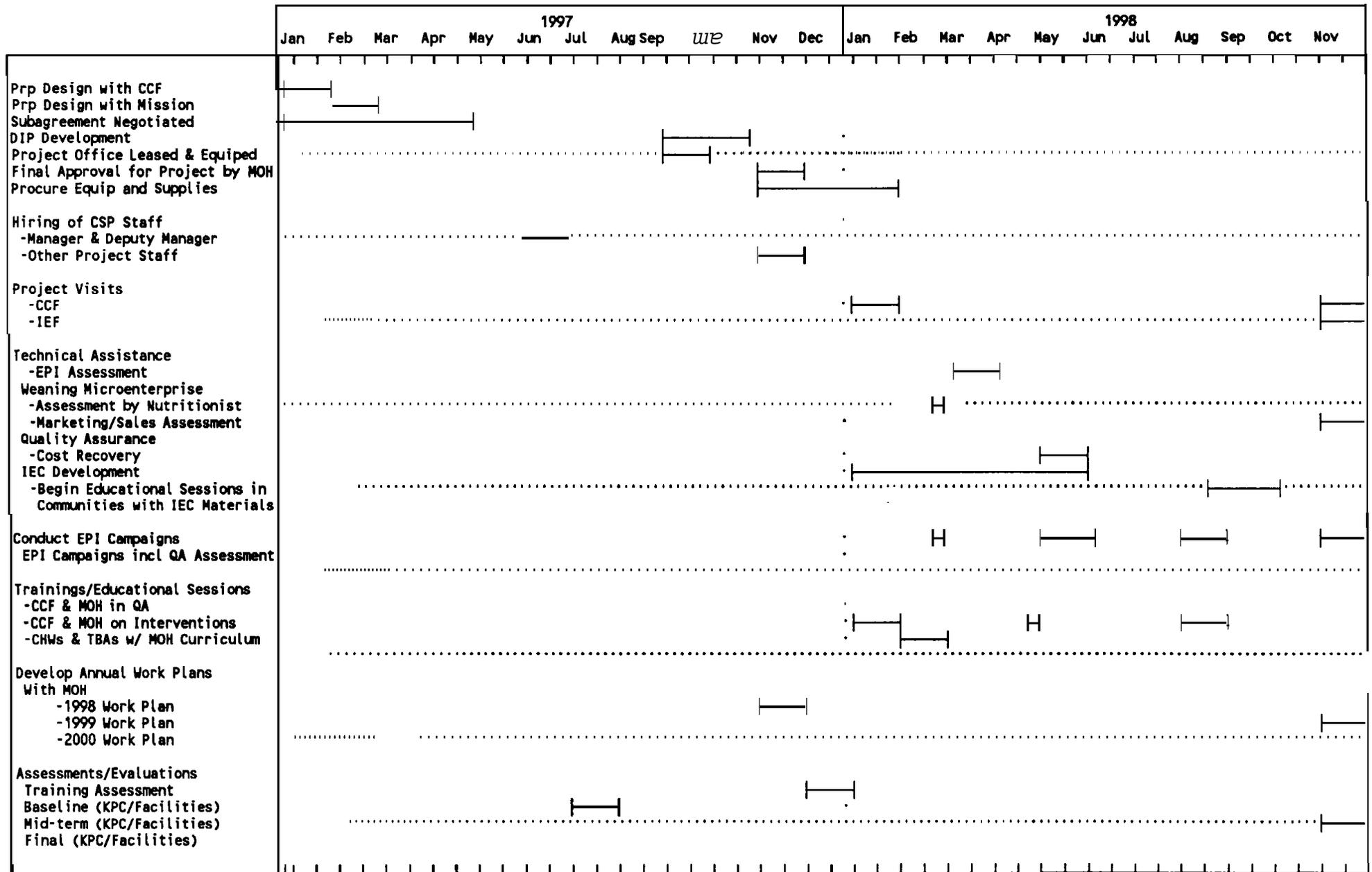
— International boundary
- - - Regional boundary
• - - * - - * Zonal boundary
• North Shewa zone of Amhara Region

KM
0 100 200

Name of UDA or PV

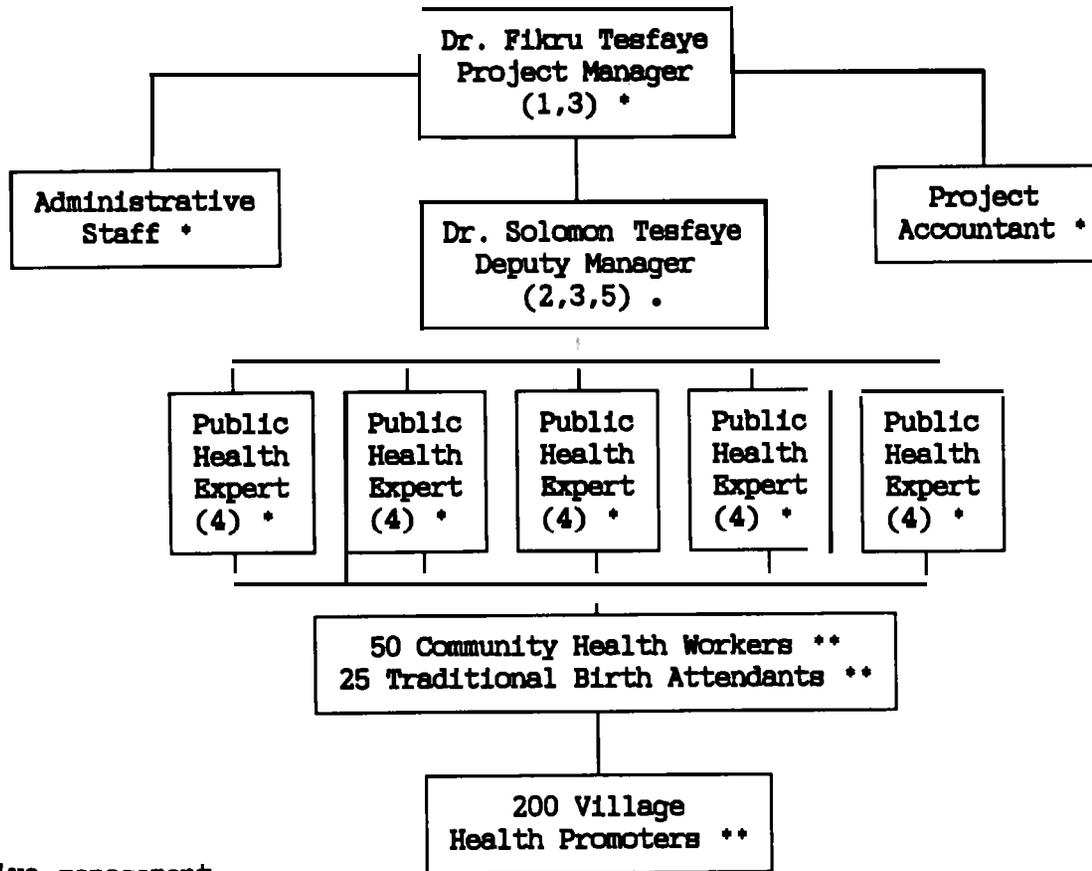
1.	Kebele 01	41.	Kasetna Amora	82.	Loye Ager
2.	Kebele 02		Gedel	83.	Axner Ager
3.	Kebele 03	42.	Daletti	84.	Asfe
4.	Kebele 04	43.	Angulala	85.	Buli
5.	Kebele 05	44.	Weina Abadera	86.	Abamo te
6.	Kebele 06	45.	Allobere	87.	Gimel Jerba
7.	Kebele 07	46.	Millii	88.	Negarit Bahir
8.	Kebele 08	47.	Kermargefia	89.	Mezerzir
9.	Kebele 09	48.	Faji	90.	Mehal Amba
10.	Tija Sar	49.	Karafina	91.	Motina Maider
11.	Mati	50.	We ini y 0	92.	Endod Washa
12.	Assahi	51.	Chelle	93.	Nehas Kum Amba
13.	Angui	52.	Wonlichu	94.	Chachatna Sefed Amba
14.	Chinbire	53.	Etiyo	95.	Metaf Washa
15.	Chacha t	54.	Saria	96.	Lay Mush
16.	wodebka	55.	he tegna Ager	97.	Dube Ager
17.	Gedemanna	36.	Ganguna	98.	Tach Mush
	Argane		Tenkole	99.	Abisa Ager
18.	Gifit	57.	Zanjira	100.	Adgo Ager
19.	Mesensa	58.	Woushwoushign	101.	Tikurit Bado
20.	Woulgim	59.	Tiliku Dilila	102.	Iiura Wariam
21.	Metkoria	60.	Atakilt	103.	Gudo Berets
22.	Dinbuna	61.	Tinishu Dilila	104.	Gyne Berete
	Gedenge	62.	Keba	105.	Baso Dengora
23.	Gushima Wouha	63.	Bere Egir	106.	Andit Tid
24.	Dinjan	64.	Aris Amba	107.	Adisege
25.	Kasma	65.	Debele	108.	Wonberona Teko
26.	Zigbina	66.	Motatit	109.	Gedana Deme
	Mekecha	67.	Selam Amba		Ayetemesh
27.	Ginbi Wajja	68.	Muter	110.	Tembezana
28.	Zendo Gur	69.	Telasa		Beterige
29.	Chelema Washa	70.	Anget Mewgia	111.	Senbeyena
30.	Nitona Weidme	71.	Dinkwanina		Mochet Washa
31.	Talak Amba		Gun aggt	112.	Zengero Gedel
32.	Moi	72.	Bakelo		
33.	Gashwot	73.	Anbato Defer		
34.	Meskeleyes	74.	Dinbaro		
35.	Keterana	75.	Tiraro Debir		
	Genansa	76.	Debreko		
36.	Ate Washa	77.	Legefada		
37.	Birbisa	78.	Lanjagind		
38.	Wabina Ketanit	79.	Birze		
39.	Gener	80.	Abore Ager		
40.	Tebase	81.	Gosh Ager		

Annex II: Project Time-line



Annex III: CCF Child Survival Project Organogram

CCF Child Survival Project Organogram



Responsibilities:

- (1) Program administrative management
- (2) Oversight of technical health activities
- (3) Monitoring of progress towards objectives
- (4) Training of health workers
- (5) Health information system

Note: All staff are country nationals

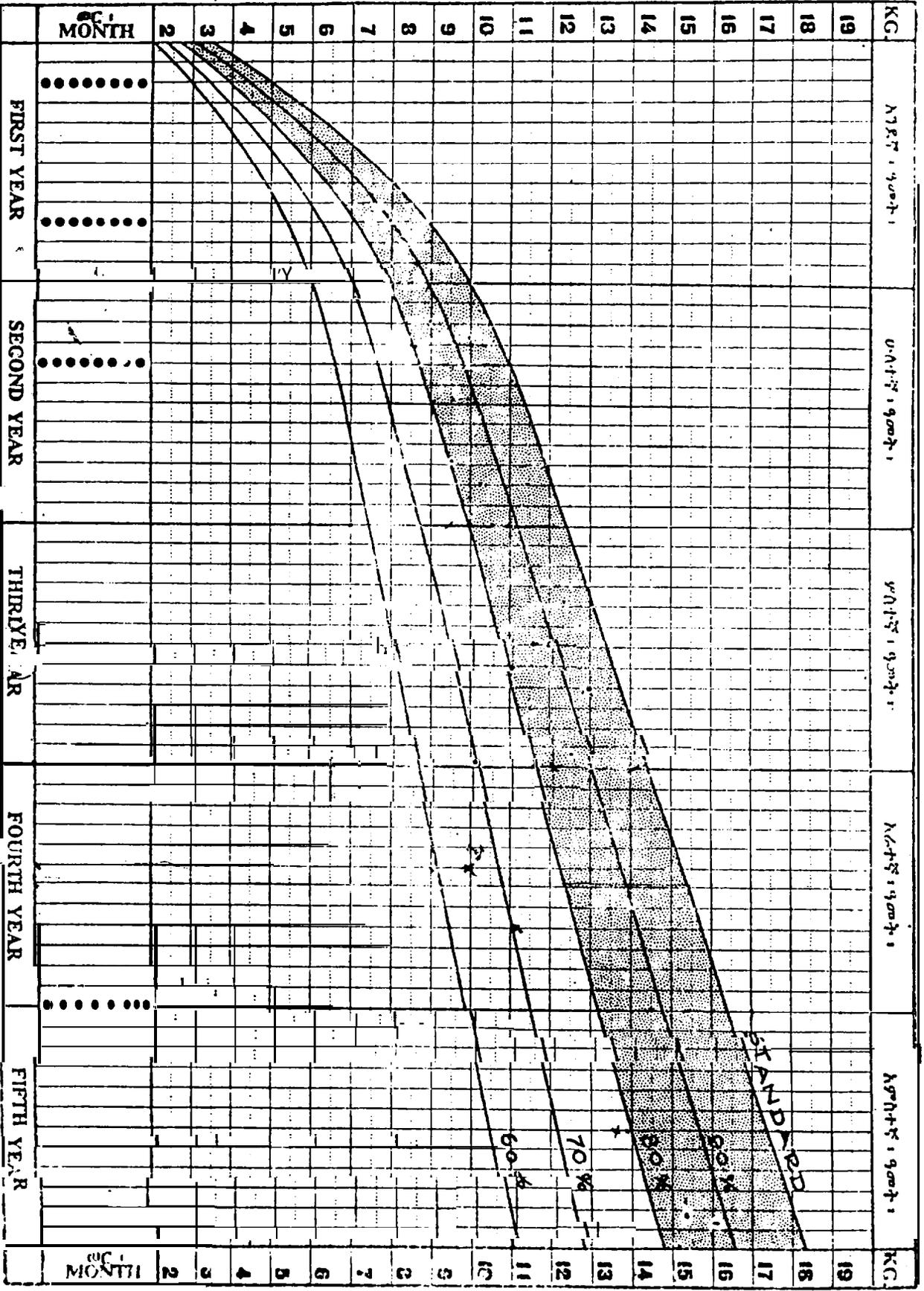
- . Paid
- . * Volunteer

Annex IV: Child Health Card

kg

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

kg



FIRST YEAR

SECOND YEAR

THIRTYE AR

FOURTH YEAR

FIFTH YEAR

kg

kg

MONTH

MONTH

Annex V: Tetanus Protection Card

3
.20

የመንጋጋ ቆልፍ መከላከያ ካርድ
TETANUS PROTECTION CARD

የምዝገባ ቁጥር
Reg. No

ሙሉ ስም
Full Name

የትውልድ ዘመን
Year of Birth

አድራሻ
Address

ከተማ / ገ. ግንባር
Town / Farmers Ass.

ቀበሌ
Kebele

የቤት ቁጥር
House No.

በልጅነት የዲ. ፒ. ቴ. ክትባት
Childhood DPT Immunization

የክትባት ብዛት
Number of Doses

ግብር እውቀት
No. Information

የመንጋጋ ቆልፍ መከላከያ ክትባት (ለአዋቂዎች)
TETANUS TOXOID VACCINATION. (FOR ADULT)

	ቀን Day	ወር Month	ዘመን Year
የመጀመሪያ ክትባት (1st Dose)			
ወለተኛ ክትባት (2nd Dose)			
ለስተኛ ክትባት (3rd Dose)			
አራተኛ ክትባት (4th Dose)			
አምስተኛ ክትባት (5th Dose)			

ግብረሰቢያ ፤ ለጅምን በወትት በግብከተብ ከሲርብት ግድነት
የሕግናት ተላላፊ በሽታዎች ያድነት

አስከትቡ ፤

አይርቡ ፤

አስታውቡ ፤

Annex VI: Ethiopia MOH Vitamin A Policy

Universal Distribution Schedule for Vitamin A

Target group	Dosage (IU)	Frequency	Timing /Schedule
* Lactating mothers: - not pregnant	200,000 (4x50,000 IU capsules)	Only once	At delivery or during BCG vaccination, (within 4 weeks of delivery)
- pregnant or at risk of being pregnant	10,000 (1x10,000 IU capsules*)	During each contact	During each MCH and/or other contacts
Children: - 9-12 months	100,000 (2x50,000 IU capsules)	Once	During measles vaccination/Any other contact
- 1-5 years	200,000 (4x50,000 IU capsules)	Every 4-6 months	During any MCH contacts

*Note: 1. Dosage above 10,000 IU should not be given to pregnant women/ those at risk of pregnancy.
2. Lactating women who may be pregnant to receive only the special 10,000 IU capsules.

Disease Targeted Supplementation:

For children with severe protein-energy malnutrition, acute or prolonged diarrhea, or acute lower respiratory infections.

Children 1-5 years	200,000 IU at first contact with health unit for each episode of illness.
Infants < 1 year and children of any age who weigh < 8kg.	100,000 IU at first contact with health unit for each episode of illness.

Treatment for children with Measles/Xerophthalmia

Schedule	Dose IU	
	Children < 1 year	Children ≥ 1 year
Immediately on diagnosis	100,000	200,000
Next day	100,000	200,000
1-4 weeks later	100,000	200,000

Note: All vitamin A supplementation must be recorded on the child's immunization or other cards to avoid duplicate dosing

Vitamin A Supplementation in Ethiopia,

Consume

Green leafy vegetables like,
("Gommen" & Spinach)

and

Yellow vegetables like.
(Carrots & Tomatoes)

to improve Vitamin A Status

March/ 1996

Ministry of Health

Vitamin A Supplementation in Ethiopia.

Vitamin A deficiency is a major public health problem in Ethiopia. When the prevalence of Bitot's spot is above 0.5%. WHO considers the deficiency to be of public health significance. In Ethiopia, prevalence of Bitot's spot is reported to be at 0.87% nation wide, with recent reports suggesting that it may be as high as 1%.

The major clinical manifestations of Vitamin A deficiency include:

- ◆ Night blindness
- ◆ Bitot's spot
- ◆ Corneal lesions
- ◆ **Xerophthalmia/blindness**

Vitamin A deficiency has been associated with increased morbidity and mortality among young children. Improvement of Vitamin A status has been associated with an average of 23% reduction in young child mortality. In areas such as Ethiopia, where diarrhea and measles are among the major causes of young child mortality, improved Vitamin A status is likely to have a greater role in reducing young child mortality.

Strategies for improving Vitamin A status are:

- ◆ Improved intake of Vitamin A rich foods (green-leafy vegetables, yellow fruits and vegetables like carrots, papaya, tomatoes..)
- ◆ Fortification of foods with Vitamin A
- ◆ Capsule supplementation for vulnerable groups.

The FDRE is promoting an improvement in Vitamin A status through all the above strategies.

Vitamin A capsule supplementation is being promoted through two strategies:

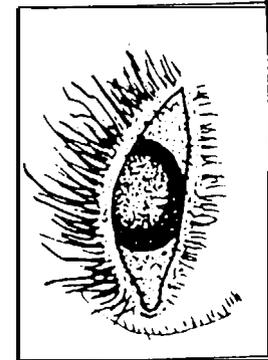
- ◆ Universal preventive supplementation schedule
- ◆ Disease-targeted supplementation.

Capsule distribution is recommended through both the EPI-Plus program and the MCH programs. The EPI program has recently been modified to the EPI-Plus. The "Plus" part refers to the delivery of Vitamin A supplements with the measles vaccine. The Vitamin A supplementation schedule is outlined in the following tables.

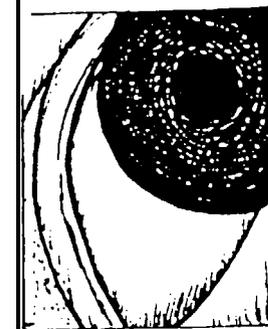
L

STAGES OF XEROPHTHALMIA

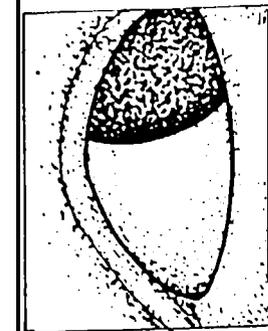
(Eye Symptoms and Signs of Vitamin A Deficiency)



Turning Gray



Bulging



White Spots



Night Blindness

Annex XI: IEF-CCF Sub-agreement

Cost Reimbursable Sub-Grant
for Implementation of the Agreement
Between
The Christian Children's Fund, Inc.
and
The International Eye Foundation
for a
Child Survival/Vitamin A Project
in Basona Werena and Taremaber Districts, Ethiopia
Cooperative Agreement No.: FAO-A-00-95-00018-00
1997-2000

This sub-grant consists of:

Schedule - Twelve pages

Annex A - Program Description Executive Summary

Annex B - Detailed Pipeline, Budgets, and Narrative

Annex C - USAID "Mandatory Standard Provisions for U.S., Nongovernmental Grantees, "
and the "Optional Standard Provisions for U. S. Nongovernmental Grantees,"
Standard provisions, and 22 CFR Part 226.

In temational Eye Foundation
Sub-Grant for Technical Services to
Christian Children’s Fund, Inc.

SCHEDULE

SUB-GRANT AGREEMENT, made and entered into by and between International Eye Foundation, Incorporated, a nonprofit corporation located at 7801 Norfolk Avenue, Bethesda, Maryland 20814 (hereinafter referred to as the “Grantor” or “**IEF**”) and The Christian Children’s Fund, Inc (CCF) located at 2821 Emerywood Parkway, P.O. Box 26484, Richmond, VA 23261-6484 (hereinafter referred to as “CCF” or “Sub-grantee”).

WHEREAS, International Eye Foundation and the United States Agency for International Development, as a part of Cooperative Agreement No.: FAO-A-00-95-00018-00 (the Cooperative Agreement), shall provide funding for the program specified below.

NOW, THEREFORE, THIS AGREEMENT WITNESSETH:

A. BACKGROUND

The International Eye Foundation (IEF) submitted a competitive proposal for funding under the **USAID/BHR/PVC** Child Survival PVO Child Survival Program (CS XI cycle) to fund the Cooperative Agreement (C.A.).

As the C.A. is awarded to IEF by USAID for implementation, and is legally responsible for overall design, implementation, management of funding, reporting requirements, and Standard Provisions as set forth in the C.A., and;

As the design of the project was developed in conjunction with the CCF and through the CCF structure to ensure sustainability, and;

As the IEF and the CCF have agreed to principals for implementation and administration of the project to adhere to Ethiopian Government and USAID concerns for sustainability and have entered into a joint Agreement;

This sub-grant is developed to comply with Standard Provisions set forth in the C.A. to regulate transfer and administration of funding to implement this project.

ARTICLE I

PURPOSE

IEF hereby awards a Sub-grant to the CCF to carry out program objectives, jointly with the IEF which are consistent with the purposes set, forth in IEF's amended CA. to develop and implement Child Survival/Vitamin A Project in Basona Werena and Western Tarmaber, Ethiopia:

1. The Sub-grantee shall provide the general management, technical support and other resources necessary to support the implementation of the project.
2. The Sub-grantee shall participate fully in all key project cycle events including development of the detailed implementation plan, baseline and other surveys, annual workplans, and annual reports.
3. The Sub-grantee shall participate directly in the mid-term and final evaluations of the project.
4. The Sub-grantee shall provide outputs and reports as required by AID and IEF, in conjunction with the IEF to document its support activities.

ARTICLE II

PERIOD OF AGREEMENT

The period of this agreement shall be from January 1, 1997 through September 29, 2000. Any amendments will be written and mutually agreed by IEF, CCF and authorized by USAID. All expenditures paid with funds provided by this agreement must be incurred for authorized activities that take place or commence during the period of the agreement.

ARTICLE III

AMOUNT AND PAYMENT

- A. The total estimated amount of this Sub-grant Agreement for the period shown in Article II above is \$718,802.
- B. IEF hereby obligates the amount of \$718,802 for program expenditures during the period January 1, 1997 through September 29, 2000.
- C. IEF shall provide CCF with advance funds equal to approximately one month of the estimated CCF Headquarters and in-country field expenses. The recipient is required to provide IEF with a Cash Flow Projection for three month intervals. IEF may request a revised cash flow schedule as needed. The CCF shall request reimbursements from IEF on a monthly basis (by the 11th of each month), after submission of a detailed invoice corresponding to the approved budget line items listed in Article IV (A) listed below.

ARTICLE IV

BUDGET AND ACCOUNTING DATA

- A. The following is the Agreement Budget, including local cost financing items, if authorized. Revisions to this budget shall be made in accordance with 22 CFR 226.25.

Beginning 01/01/97 and ending 09/29/00	
	<u>\$total</u>
Personnel	251,130
Travel/Per Diem	168,077
Consultants	37,875
Procurement	21,613
Other Direct Costs	86,313
Subtotal Direct Costs	565,008
Indirect Costs*	153,794
Total USAID Amount	718,802
Total CCF Amount**	278,544
TOTAL AGREEMENT	997,346

* Budget includes **CCF's** NICRA agreement.

** CCF is expected to match USAID funding by 33.3% or total agreement funding by 25%.

- B. The budget plan is the financial expression of the project. The Recipient is required to report deviations from budget and program plans, and request prior approvals for budget and plan revisions to IEF in accordance with 22 CFR Part 226.25 and the procedures outlined in the Standard Provision entitled "Revision of Sub-grant Budget."
- C. The Recipient shall comply with all laws, rules, procedures and regulations concerning Federal Sub-grants as they may relate to the administration of this Sub-grant made pursuant to the Act, including the Office of Management and Budget Circular A-110 "Uniform Administrative Requirements," Attachment IV, the United States Agency for International Development "Mandatory Standard Provisions for U.S., Nongovernmental Sub-grants," and the "Optional Standard Provisions for U. S. Nongovernmental Sub-grants."
- D. Title to property acquired by the recipient under this agreement shall vest with CCF in accordance with Optional Standard Provision No. 21 - "Title to and Care of Property (U.S. Government Title)" with the substitution of "CCF" for the term "U.S. Government."
- F. The authorized geographic code for procurement of goods and services under this Agreement is the United States Agency for International Development Geographic Code 000.

ARTICLE V

ALLOWABILITY OF COSTS

Allowability of costs incurred under this agreement will be determined in accordance with Office of Management and Budget A-122 "Circular A-122 "Cost Principles for Nonprofit Organizations. "

- A. CCF shall use United States flag carriers and economy class service for travel supported under this agreement. Per diem costs charged to this agreement by CCF and any sub-recipients shall be limited to the per diem amounts stipulated in the applicable schedules in effect on the date of travel.
- B. Compensation to consultants must be approved in advance by IEF on the basis of salary history and standards of comparability.
- C. Under no circumstances are expenditures for entertainment, gifts, gratuities, donations, alcoholic beverages, fines, or penalties allowable under this Sub-grant.

ARTICLE VI

SUBSTANTIAL INVOLVEMENT

CCF shall abide by the requirement of "Substantial Involvement" defined in the IEF C.A. with USAID. Substantial Involvement covers the following:

- A. USAID approval of a detailed implementation plan (DIP); and any subsequent revisions; substantial changes, resulting in any revisions to specific interventions, activities, locations, beneficiary population, budget, training, indirect cost elements, and procurement plan that may require a modification to the C.A.
- B. USAID approval of key personnel including any associated changes. The Personnel subject to approval of USAID are Headquarters technical backstop, Program field director, and Evaluation team leader.
- C. USAID approval of the monitoring and evaluation plans, and **USAID** involvement in monitoring progress toward the achievement of program objectives during the course of the C.A. The monitoring and evaluation plan submitted in the proposal will be amplified in the DIP, and will be reviewed for approval.

REPORTING AND EVALUATION

CCF shall provide to IEF and retain in its permanent files the following written reports necessary to monitor the progress of program activity and ensure compliance with legislative requirements.

- A. Program
 1. CCF, in conjunction with the IEF, shall submit a Detailed Implementation Plan (DIP) at a date negotiated with USAID but no later than the expected date for the First Annual Report due approximately September 29 1997. The DIP includes a detailed budget and is to be based on completion of a standardized Knowledge, Practice and Coverage baseline survey, following recommended guidelines.
 2. CCF, in conjunction with the IEF, shall submit annual reports including Annual Work Plans. The annual report shall be timed and formatted to include relevant information required to comply with USAID's reporting requirements. The mid-term and final evaluation reports are considered substitutes for the annual reports.

3. CCF shall periodically brief IEF on project status during coordination meetings between IEF and CCF headquarters. These briefings will include a short discussion (maximum two pages) of the status of project activities including progress made, implementation problems and recommended solutions, and plans for the next reporting period. These briefings are considered a time to mutually discuss progress and problems and jointly share information and plan schedules. The format and schedule for meeting will be jointly agreed by CCF and IEF.
 4. CCF, in conjunction with IEF, shall conduct a mid-term and final evaluation according to USAID guidelines.
 5. CCF, in conjunction with IEF, shall prepare a Final Report, including a comprehensive and detailed report of activities, and an evaluation of accomplishments under the Agreement. The final evaluation can serve as the final report. The Final Report will be due sixty days after the end date of the project.
- B. Financial - CCF shall provide financial reports according to an agreed format that includes information to process budget expenditure and further budget transfers. Reports are to be provided on a monthly basis.
- C. Expenditure Estimates - CCF shall provide modifications to expenditure estimates to ensure that excess funds do not accumulate in CCF accounts, as set forth in Article III (C).

ARTICLE VII

RESPONSIBILITIES

- A. In carrying out the purposes of this agreement, CCF shall be responsible for planning, organizing, and administering the program to conduct activities consistent with the purposes of IEF and the program objectives stated in Article I. CCF shall not provide Sub-grant funds to other organizations unless mutually agreed.
- B. CCF shall be subject to the appropriate IEF oversight procedures. These procedures include the following:

1. **Record-keeping.** CCF agrees that it shall keep separate accounting records with respect to Sub-grant funds. These separate records shall fully disclose the **amount** and the disposition of the funds Sub-granted under the terms of this agreement and facilitate an effective audit. The records maintained by the CCF shall reflect the total cost of the project or undertaking in connection with which such funds are given or used, and the nature of that portion of the cost of the project or undertaking supplied by other sources. Sub-grant records shall be maintained for three (3) years following the date of the submission of the final financial report.
2. **Audit.**
 - a. CCF shall establish procedures and assign responsibility so that IEF can perform (or require to be performed) selective, independent auditing or other forms of verification of the information submitted **by** sub-recipients to ensure compliance with Sub-grant terms and objectives.

CCF shall have an organization-wide financial statement audit usually conducted annually. The audit shall be conducted in accordance with generally accepted government auditing standards for financial audits contained in the Government Auditing Standards (1988 revision) issued by the Comptroller General of the United States and as required under the provisions of Office of Management and Budget Circular A-133 "Audits of Institutions of Higher Education and Other Non-Profit Institutions."

The audit shall **be conducted at** the place or places 'where the accounts of CCF are normally kept. All books, accounts, financial records, reports, files and all other papers, things or property belonging to or in use by CCF and necessary to facilitate the audit shall be **made** available to the person or persons conducting the audit; and full facilities for verifying transactions with any assets held by depositories, fiscal agents, and custodians shall be afforded to such person or persons.

- b. Should the audit disclose any material instances of noncompliance or indication of fraud, abuse or illegal acts, such information shall be included in the report with appropriate recommendations. The report of each **such** independent audit shall be provided to IEF.

- c. The financial transactions of CCF for each fiscal year may be audited by United States Agency for International Development and 'the Comptroller General of the United States. Any such audit shall be conducted at the place or places where accounts of CCF are normally kept. The representatives of the United States Agency For International Development and the General Accounting Office shall have access to all books, accounts, records, reports, files and all other papers, things, or property belonging to or in use by CCF pertaining to financial transactions relevant to this Sub-grant and necessary to facilitate the audit; and they shall be afforded full facilities for verifying transactions with any assets held by depositories, fiscal agents and custodians. All such books, accounts, records, reports, files, paper, and property of CCF shall remain in the possession and custody of CCF.
- d. IEF reserves the right to conduct or have conducted its own audit of **CCF's** records in the exercise of its obligations under this Sub-grant.

ARTICLE VIII

NONEXPENDABLE PERSONAL PROPERTY

The provisions of Office of Management and Budget Circular A-1 10 "Uniform Administrative Requirements shall apply to any nonexpendable personal property purchased with funds provided by. this agreement.

ARTICLE IX

DISCRIMINATION

CCF agrees to comply with:

- A. Title VI of the Civil Right Act of 1964, as amended, 42 U.S.C. 2000d et. seq., which prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving federal financial assistance.
- B. Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794, which prohibits discrimination on the basis of handicap in programs and activities receiving Federal financial assistance.

- C. Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. 1681 et. seq., which prohibits discrimination on the basis of sex in education programs and activities receiving Federal financial assistance.
- D. The Age Discrimination Act of 1975, as amended, 42 U.S.C. 6101 et. seq., which prohibits discrimination on the basis of age in programs or activities receiving Federal financial assistance.

ARTICLE X

INDEMNITY

CCF agrees to indemnify IEF and its Officers and Directors, including cost of defense, for any claim made against them arising out of CCF's performance of this Sub-grant agreement. This indemnity shall be in excess of **IEF's** insurance policies, but not limited by the scope of such policies.

ARTICLE XI

AMENDMENTS AND MODIFICATIONS

No amendment or modification of this Agreement shall have any force or effect unless it is in writing and signed by an authorized representative of IEF and the authorized representative of CCF.

ARTICLE XII

TERMINATION

- A. If the United States Agency for International Development deems it in the best interest of the United States to terminate its agreement with IEF, IEF may terminate this Sub-grant by giving CCF thirty (30) days notice in writing. CCF may terminate the agreement for any reason by giving IEF thirty (30) days notice in writing. In the event this agreement is terminated under this provision, CCF shall immediately terminate any Sub-grants or other obligations that it may have entered into involving funds provided under this agreement and shall settle all outstanding liabilities and all claims resulting from the termination of Sub-grants and other obligations. Any balance of funds received from IEF that is unused and found to be unnecessary to liquidate outstanding obligations shall be returned to IEF.

- B. IEF may terminate this Sub-grant if it is determined that there are significant noncompliance by CCF with the terms and conditions of the agreement. In the event IEF believes there is significant noncompliance, it shall so inform CCF in writing. Within thirty (30) working days after receipt of notification, CCF may respond to IEF indicating steps taken to remedy its noncompliance. Should IEF determine that these actions are insufficient, it reserves the right to terminate the Sub-grant. Such termination must be in writing and must set forth the reasons for termination must be in writing and must set forth the reasons for termination. In the event of any such termination, IEF reserves the right to take such action as may be necessary to recover any unexpended, unobligated, and unallowable funds provided hereunder.

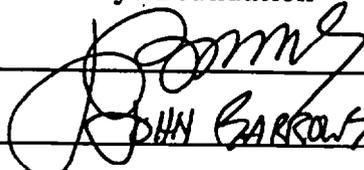
ARTICLE XIII

DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

In accepting this Sub-grant, CCF certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this agreement by any U.S. Government department or agency.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the dates indicated herein below.

For and behalf of the International Eye Foundation

Signature 

Name JOHN BARROWS

Title Director of Programs

Place, Date 7/28/97 Bethesda, MD

For and behalf of the Christian Children's, Fund, Inc.

Signature _____

Name _____

Title _____

Place, Date _____

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Annex XII: Budgets

Annex IX: Facility Assessment

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MOH/IEF/CCF CHILD SURVIVAL PROJECT

**FACILITY ASSESSMENT OF BASONA WERANA AND
DEBRE BIRHAN WOREDAS**

Survey Team: **Fikru** Tesfaye (MD,MPH), CSP Manager
Solomon Tesfaye (MD, MPH), CSP D-manager
Hailu Bekele (nurse), Section head in Basona
Worena woreda health office
Endrias Adamu (nurse), Section head in Basona
Worena woreda office

August 1997

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1 .O. EXECUTIVE SUMMARY

The child survival project in Basona Werana and Debre Birhan woredas of North Shewa zone have a catchment population of **159,818**. The region is poor, rural and characterized by environmental degradation and periodic drought. There are high infant and child mortality rate (105 and 159 per 1000 respectively); low immunization rates (15.5%); high rates of malnutrition, 17% severe and 29% moderate. The diseases pattern is characterized by ARI, vaccine preventable diseases, and diarrhea diseases due to poor environmental sanitation.

The goal of this project is to decrease infant and child morbidity and mortality through immunization, control of diarrhea diseases and promotion of Vitamin A/nutrition. The knowledge, practice and coverage (**KPC**) related to major interventions of the project is available from a recent **KPC** survey in the project area. This facility survey was conducted to determine the knowledge and practice of health workers with regards to child health programs and the capacity of health institutions to implement the child survival interventions, and to use the information obtained for improving the child health services in the project area.

The sampling frame for this **survey** comprised of all the health facilities in **the two woredas**, all infants, and children under five years of age presenting to health **facilities during the** period of observation as well as, all caretakers of infants and children under five observed. A total of six health facilities, eight health assistants, ten infants and children, and ten caretakers were enrolled in the survey.

Health workers knowledge of vaccination schedule was found to be high. A low proportion of cases were asked history questions related to their presenting illness. Questions which are considered important for assessing the severity of illness were asked much less frequently, and a lower proportion of cases were treated appropriately. No care taker knew the sign/symptom of a child's illness getting worse.

All the health workers mentioned that Vitamin A prevents night blindness but only one knew the correct dosage of Vitamin A. Majority of the growth monitoring sessions were taken and recorded/plotted correctly but only few were able to correctly interpret it.

The majority of health facilities had all essential equipment. ORT corners were present in only few health facilities. All facilities were lacking at least one essential medication on the day of the survey, and all of the facilities had experienced at least **one** stock out of essential medications in the previous three months.

Most health workers had a supervisor who had visited at least once in the previous 12 months. Only a **few** of all health **workers** had received feedback from their supervisors. Only one health worker received training in the previous 12 months prior to the survey.

It is believed that the different child health services in the project area could be improved by conducting in-service training for the health workers, strengthening the supervisory activity and improving supplies, and establishing proper management of drugs, equipment, and other supplies.

2.0. INTRODUCTION

The child survival project in Basona Werana and Debre birhan woredas of North shewa zone, Amhara regional state, Ethiopia, will be implemented by the International Eye Foundation (IEF) through sub-grant to the Christian Children's Fund (CCF). The total population of the area includes 159,818 people living in 23 peasant and 9 urban dwellers associations. The project will reach over 60,000 women and children in the districts of Basona Werana and Debre Birhan.

The region is poor, rural and characterized by environmental degradation and chronic periodic drought. There are high infant and child mortality rates (105 and 159 per 1000 respectively).

National data on immunization coverage are available from a recent multiple indicator cluster survey (MICS), MOH, June 1996, 33.5% of children 12-23 months were fully immunized, with 44.8% OPV₃ and DPT₃ and 37.5% immunized against Measles. Immunization in parts of the project area was found to be DPT₃ 21.3%, Measles 21.3% and fully immunization 15.5%. The current level of coverage for TT₂ of women in the project area is 22.3%.

In Ethiopia, 45% of childhood mortality is attributed to diarrhea diseases according to MOH. A UNICEF survey from 1993, found that in the two weeks preceding the survey 35% of children had suffered an episode of diarrhea. The MICS showed 18.7% were reported to have diarrhea in the preceding two weeks. In the KPC survey of the project area 32.6% were identified to have diarrhea in the preceding two weeks. ORT use was very high at 95.2% Nationally. A recent facility survey conducted by BASICS in the southern region of Ethiopia revealed that only about 20% of health facilities in that area had a functional ORT corner.

A UNICEF study conducted in 1992 revealed a level of 38% total malnutrition at the national level. The rate of severe malnutrition in CCF project areas is 20%. The majority of house holds are considered food insecure. National data indicate Vitamin A deficiency is a significant public health problem with a national XIB (Bitot's spot) average of 1.0% and estimated total xerophthalmia rates of 6%. A large scale study in Shewa region (1981) found XIB prevalence to be above 0.5%, serum retinol levels in children 6-71 months of age have been found to be as high as 59.6% below 0.70umol/l.

The available health infrastructure are limited. In Debre Birhan there is one hospital serving for the entire zone. There are six health stations and seven health posts in Basona Werana woreda.

The goal of this project is to decrease infant and child morbidity and mortality through immunization, control of diarrheal diseases and promotion of vitamin A / Nutrition. The project will build on the existing MOH infrastructure and expand community outreach capabilities by enlisting participation of communities through the 23 peasant and 9 urban dwellers associations and gaining of 52 community health workers and 600 community health promoters to reach approximately 24,600 house holds. The approach to sustainability will be creating capacity and demand for the

The knowledge, practice and coverage level related to major interventions of the project were available from the recent WC survey in the project area and others at national level. However the knowledge and practice of health workers and the capacity of the health institutions to implement the child survival interventions were not available for the project area. There are some data for other areas, like the one done by BASICS in the Southern region.

3.0. OBJECTIVES OF THE SURVEY

1. To determine the level of:
 - a. Current knowledge and practices of health workers at out-patient clinics regarding the assessment and management of sick children
 - b. Adequacy of training and supervision of health workers.
 - c. Adequacy of facilities capacity and
 - d. Barriers against implementation Of child health services effectively.
2. To use information obtained on case management practices, training and supervision, facilities capacity and barriers to child health services to;
 - a. Prioritize and plan improvements in out patient health facilities at all levels, includes clinic organization, equipment requirements, drug and material supplies and communications.
 - b. Improve in service training for the health workers in the out patient clinic setting.
 - c. Improve and develop a strategy for supervising and monitoring health worker
 - d. Improve the child health services.

4.0. METHODOLOGY

The sampling frame for the survey comprised of all health facilities in the two woredas (Basona Werana and **Debre Birhan**), Only one facility (Tija Sar Health Station), which was not accessible during data collection period was excluded from the survey.

The sample consisted of all infants and children under five years of age presenting to the health facilities during the period of observation. The total number of infants and children therefore represent clusters brought to the sampled health facilities. Care takers of all infants and children under five years of age treated during the observation were enrolled for the exit interview. All the health workers working in the out patient clinic treating sick children were in the sampling frame for assessing the knowledge and practice of health workers.

The survey instruments were designed to obtain information on key aspects of the knowledge and practices of health workers and of care takers leaving the health facility. In addition, information was gathered on the health facility including the availability of materials and supplies.

Four survey instruments were used at each health facility

- a. Observation of how a health worker treats the sick child
- b. Interviews of health personnel regarding knowledge and practice of case management of sick children.
- c. Exit interview with the care taker of the child as they leave the health facility.
- d. Assessment of facilities and supplies

Field work was conducted by two teams (One team for each facility), each comprising a supervisor and one surveyor. At each health facility, the supervisor was responsible for introducing the team and explaining the purpose of the visit. During the clinic visit the surveyor was stationed in consulting room and conducted the health worker observation component of the survey, at the end of the clinic the surveyor also conducted the health worker interview. The supervisor conducted exit interviews with the care takers as they left the clinic with the child. In addition, the supervisor conducted the facility equipment and supply review section of the survey. At the end of the day, the supervisor reviewed all questionnaires for completeness and accuracy.

Training of survey teams was conducted for half a day. Training included a review of survey methodology and objectives, conduct of the field activities and careful review of the survey instruments.

The data collected was tabulated manually and descriptive data analysis was made and summarized and discussed among survey teams.

5.0 . RESULTS

5. I. HEALTH WORKER BACK GROUND

Eight Health Assistants working in the Health stations were interviewed to assess their knowledge related to different child health services using a list of questions.

Six out of eight (75%) know the right schedules for the different vaccines of the EPI, 87.5% (7 out of 8) knows correctly the interval between different doses of vaccines for a child and all health workers know to whom Tetanus toxoid is given.

Three out of eight (37.5%) know two or more sign/symptoms to asses a child with cough, only one health worker mentioned about looking for respiratory rate. Only one health worker knows the cut off point of respiratory rate for childhood pneumonia. Two out of Eight (25%) know correctly how to classify AIU. Only one described correctly the different forms .of pneumonia treatment, most describe prescribing different forms of antibiotics. Four out of eight (37.5%) know two or more signs/symptoms which necessitate referring a child with pneumonia, severe illness was mentioned only by one health worker.

Four (50%) know at least two signs/symptoms to ask for the a child with diarrhea. All Health Assistants know at least two signs/symptoms to look for a child with diarrhea, tears in one out of eight, eyes in four out of eight and skin turgor in eight out of eight. 50% (4/8) classify diarrhea correctly while 25% (2/8) classify dehydration correctly. 25% (2/8) describe the different forms of treatment correctly; ORS was mentioned in 6 out of 8 with out considering the degree of dehydration, Antibiotics were mentioned for bloody diarrhea in three out eight (37.5%) and for other forms of diarrhea in four out eight (50%). Referring severe cases was mentioned in two out eight (25%) and advice in home care in only one of the health worker.

25% (2/8) health assistants classify the nutritional status of a child based on the weight and age parameter correctly. 50% (4/8) know at least two additional signs/symptoms for assessing the nutritional status of a child.

All the Health Assistants mentioned Vitamin A will help to prevent night blindness and five out of eight (62.5%) additionally mentioned Vitamin A rich foods will help to prevent night blindness. 87.5% (7/8) know at least one sign/symptom of Vitamin A deficiency. Only one health worker knew the dosage of Vitamin A correctly. All health workers knows at least one food rich in Vitamin A; Carrot in seven out eight (87.5%), green leafy vegetables in four out of eight (50%), liver in two out of eight (25%) and Tomatoes in one out of eight (12.5%).

All health workers know at least one sign/symptom of Iodine deficiency. All health workers know at least one preventive measures for Iodine deficiency; Iodine capsules in five out of eight (62.5%), Iodine salt in six out eight (75%) and both Iodine capsule and Iodized salt were mentioned in three out of eight (37.5%).

5.2. OBSERVATION FINDINGS

A total of ten under five children (2 in the health stations and 8 in the hospital) were observed while a health worker was assessing, diagnosing and treating them using a list of questions. The age of the children ranged from 4 to 60 months and averaged 19 months.

Table 1: Common complaints of children

<u>Complaint</u>	<u>Frequency</u>	<u>%</u>
Diarrhea/vomiting	4	40
Fever	2	20
Cough/difficulty		
<u>in breathine</u>	4	40
<u>Total</u>	10	100

Five out of ten (50%) of care takers were asked about important history related to the child complaint by the health worker. History of home treatment was not asked in nine out of ten (90%), history of **other place** for medical care was not asked in eight out of ten (80%) and history of convulsions was not asked in six cases with related complaint. Only two out of ten (20%) of children were checked for important signs related to their complaints. Respiratory rate was not counted in seven cases with related complaint, Skin turgor and sunken eyes were not looked in five cases with diarrhea and temperature of a child was not assessed in four out of ten (40%) children.

Table 2: Common diagnosis by the health worker

<u>Diagnosis</u>	<u>Frequency</u>
Diarrhea	5
Pneumonia	4
URTI	3
<u>Coniunctivitis</u>	2

Only one patient out of ten was diagnosed using WHO classification for diseases. Six out of ten children were diagnosed appropriately based on the assessment. Common treatment prescribed by the health worker; Antibiotic (7),

Antipain (3), ORS (2) and Vitamin (I). Four out of ten children (40%) received appropriate treatment for their diagnosis.

Table 3 : Counseling of care takers by health workers

<u>Counseled on</u>	<u>Frequency</u>		
	<u>Yes</u>	<u>No</u>	<u>Total</u>
Explain how to administer medication	3	7	10
Demonstrate how to administer	1	9	10
Ask open ended question	1	9	10
Explain home care	2	8	10
Explain when to return	3	7	10

Health worker asked child's immunization card in four out of ten cases (40%) and only one out of nine mothers for immunization card. The only action observed was for one child and one mother with out the card to come for immunization day.

Growth monitoring sessions were observed in 11 cases; 8 out of 11 (72.7%) cases taken correctly, 10 out of 11 (90.9%) cases recorded/plotted it correctly, 4 out of 11 (36.4%) cases interpreted it correctly and only one care taker was counseled.

Three health education sessions were observed. Topics covered were; family planning, Immunization and diarrhea. All the three sessions used lecture methods. In one out of 3 sessions no materials were used while the other two used flip charts and ORS sachets. Two out of three sessions tried to participate their audience. No one asked an open ended question to verify whether the audience understood the message or not. The average time spent for the health education session was 10 minutes.

5.3. EXIT INTERVIEW

All the care takers of sick children (10) treated during the observation were interviewed.

The average distance for the rural residents travel to the health station was 1 hour and 45 minutes The rural residents traveled 3 hours while the urban dwellers traveled 15 minutes to come to the hospital.

Only one out of ten (10%) of care takers had a problem to come for medical care, problem in finding money to cover the medical expenses. The duration of child's illness before visiting health institution ranged 1 to 30 days and averaged 7 days.

Type of home care for the sick child; Only one out of ten (10%) received home made fluids, three out of ten (30%) of children received different types of medications at home and six out of ten (60%) of children received nothing at home. Only one out of ten (10%) cases went to other place (private clinician) before coming to the health institutions.

Only two out of ten care takers were told about the child's problem. Four out of ten (40%) care takers did not know what type of medication is prescribed for the child. Only four out of ten (40%) were able to explain the administration of medication to the child. Of those four, only two were able to correctly explain the dose, frequency and duration of administering the medication.

No care taker knew at least one general and one specific aspects of home case management. Four out of ten (40%) care takers knew at least two signs of child getting worse at home. There was no child referred. The money spent for medical care ranged from free to six Birr and average **5.25 Birr**.

5.4. FACILITY CAPACITY

Assessment of the health institution was done in Debre-Birhan hospital and Five health stations (Gosho-bado, Chimbire, Keyit, Angolela and Metkoria). In Debre-Birhan hospital only the MCH unit was assessed.

All the health stations are in good conditions with seven rooms each, while the hospital MCI-I unit is in a very poor condition with three rooms. All the health institutions except the hospital MCH unit have a covered waiting area. All the health institutions except Angolela health station have potable water supply. The hospital uses pipe water while the other four health stations use protected springs. All the health institutions have a functional toilet/latrine, one uses VIP latrine and the others' use pit latrines.

Health information posters were displayed in all health institutions. All the health institutions have ORT corner. Those in Keyit health stations and Debre-Birhan hospital are not being used. Those ORT corners in Gosho-bado, Chimbire and Angolela health station have incomplete mixing and measuring utensils.

Table 4: Catchment area by health institution;

Type of health institution	No. of PA's	Total population	No. of outreach sites
Gosho-bado health station	9	9,515	8
Chimbre “ “	6	6,443	7
Keyit “ “	42	46,560	26
Angolela “ “	12	13,000	11
<u>Metkoria</u> “ “	4	4,600	5

All the health stations visit each OR site once per month. **The hospital** is serving as a referral hospital for the zone and is responsible for the **9 UDAs of** Debre-Birhan town reaching a total population of 41,969. No outreach visit is conducted by the hospital. All the health institutions know their eligible populations for different programs. The range of walking distance that the farthest communities travel to reach the respective health stations was **2-7 hours**. **The** average walking distance that the farthest community travel to reach respective health stations was 4 hours and 20 minutes. The farthest urban kebele to reach the hospital took only 30 minutes.

The health institutions are open regularly five days per week for an average of eight hours a day. Range of distance of referral facilities to the health stations; **2:30** hours to 12 hours on foot, 15 min. to 2 hours by car, and **1:30** hours to 9 hours by animal ride. Average distance of referral facilities to the health stations was five hours by walk, one hour by car and 3:45 hours by animal ride. The referral hospital to Dibre Birhan hospital is Addis Ababa hospital which is 3 hours by car. All the health stations provide polyclinic, FP, EPI, delivery, health education, ANC, PNC, GM, CDD and under 5 clinic service.

Only Keyit health station have three health assistants while the other health stations have two health assistant each. In Debre-Birhan hospital one physician and one nurse are responsible for pediatric clinic. Only one health assistant in Gosho-bado health stations was found to be trained in child health **related** topics; integrated maternal and child health in the last 12 months.

All the health stations have one or two types of treatment guidelines. Four have diarrhea treatment guidelines and two have STD treatment guidelines. There is no treatment guideline in the hospital.

All the health institutions charge service fees for sick children, 0.50 Birr in the health stations and 2 Birr in the hospital. Delivery service charge is payed for in Chimbre health station (3 Birr) and hospital (7 Birr). No other services were charged for well

baby clinic, ANC, Immunization and FP. The average cost for treating childhood pneumonia in the health institutions **was 4.65 Birr.**

Three out of five health stations (Gosho-bado, Keyit and Angolela) have motor cycle. Those in Gosho-bado and Keyit are in good condition. The hospital have one vehicle and one motor cycle serving multiple purposes.

Concerning type of health education materials in health institutions; all the health institutions have flip charts, three have cards/leaflets and three health stations (Chimbre, Angolela and Keyit) have loud speaker, and only Angolela health stations have tape recorder.

All the health institutions have adult scale. Except Angolela and Metkoria health stations the others have baby scale. Except Angolela health stations the others have salter scale.

Vitamin A is not available in all health institutions. The other drugs not available in stock were; Amoxicillin (5/6), IV fluids (4/6), Antimalarial (3/6), **paracetamol (2/6)**, **Chloramphenicol (2/6)**, ASA (1/6), Iron (1/6) and Mebendazole (1/6). Needles and syringes for treatment are reported to be out of stock once in two out of six health institutions and gloves in one out of six. Drugs reported to have been out of stock more than once in the last 3 months were; **Chloramphenicol (2/6)**, Paracetamol (1/6), Cotrimoxazole (1/6), Procain penicillin (1/6) and Metronidazole (1/6). Needles and syringes for immunization and treatment are reported to be out of stock more than once in the last three months in 2/6 and 1/6 health institutions respectively. The other drugs and supplies attached in the annex are available always in all health institutions

Drugs found expired in the health institutions were; IV fluids (3/6), Metronidazole (2/6), **Vitamin A capsules** (1/6), Niclosamide (1/6), Procain Penicillin (1/6), **ASA** (1/6), Ergometrine (1/6), CAF eye ointment (1/6), CAF tablet (1/6), Ampicillin syrup (2/G), Chloroquine (1/G) and Cotrimoxazole (1/6). There was no expired vaccines or , frozen vials of DPT, or TT in all the health institutions.

Equipment's not available in the health institutions were; IV stand (2/G), Fetoscope (2/6), **Otoscope** (1/G), Stitching material (1/6) and incomplete delivery set (1/6). Other equipment in the list were available in all health institutions. Furniture's (chair, table, drug shelves and book shelves) were available in all health institutions.

All the health institutions have a refrigerator. All except the hospital (with electric) have refrigerator working with Kerosene. Refrigerators in Chimbre and Metkoria

temperature reading ranges from 0 to 8°C. Three health stations have a temperature chart and there **was no** reading above 8°C or below 0°C. All the health institutions with functional refrigerators have frozen cold boxes. Two health institutions have cold boxes which were functional and all the health institutions have functional vaccine carrier.

All the health institutions arranged vaccines properly. Only three out of six health institutions arranged drugs and supplies properly. All the health stations received their supplies from woreda health office while the hospital is receiving the supply from Addis Ababa. The most common causes of a delay in delivery of supplies were a delay in distribution from woreda health office and transportation..

All the health institutions submit report weekly for epidemic diseases, monthly for morbidity and other service/program activities, quarterly for drug and other supply, health activity and inventory report and annually for drug and other supplies. All the health institutions keep a copy of the reports. Reports coincide with records in five out of six health institutions. Records coincide with individual cards in five out six health institutions and diagnosis coincide with treatment in three out of six health institutions.

Monitoring chart for EPI were available in all health institutions while for FP, ANC and Delivery in only one health institution. The information collected in the health institutions were used by the health workers to; Assess performance/level of achievements (4/6), identify strength and weakness (2/6), identify problems (1/6), trace defaulters/ drop outs of immunization (1/6) and plan the future activity (1/6). Three health institutions received **feedback** during the monthly evaluation meeting while the other 3 had not received any feedback.

The hospital has **no** noticeable diseases report, all essential monthly report and patient register. Only Chimbire health station has no noticeable diseases report forms while the other health stations have all the formats.

52 to 164 (mean=89) adult patients and 10 to 55 (mean=26) 0-4 age patients were seen by the health stations. The average patients seen per day by the health stations was eight. The hospital saw 500 under five age patients in the last month and average number of under five per day is 22.

All except the hospital have a functional supervisor. No supervision was conducted in the last six months, while only once in the last 12 months to each of the health stations. Observation of different activities and discussions were the major activities conducted by the supervisors. Only three health stations receive supervisory feedback.

Difficult problems faced by the health worker in conducting

A. Immunization are;

- 1 -Low community participation
- 2-Poor support from the community leaders
- 3-Lack of community awareness
- 4-Shortage of Needles and syringe
- 5-**Poor** maintenance of refrigerator
- G-Lack of transport facility to reach distant places
- 7-Lack of incentive for the health workers

B. Acute respiratory tract infection;

- 1 -Delayed seeking of medical care
- 2-Poor paying capacity of the community for medical care
- 3-Lack of training for health workers
- 4-Improper Usage of medication

C. Control of diarrheal diseases;

- 1 -Delayed seeking of medical care
- 2-Lack of awareness by the community
- 3-Preference of injections by the community
- 4-Cultural problem, like restricting fluid
- 5-Care takers don't have time to stay for demonstration.
- 6-**Lack** of IV fluids to treat severe dehydration
- 7-Lack of rooms for ORT comer and no ORS for demonstration in the hospital
- 8-**Lack** of on job training

D. Growth monitoring and promotion;

- 1 -Cultural barriers, not willing to expose the child
- 2-Failure to come for growth monitoring
- 3-Lack of hanging scales for out reach sites

Suggestions/proposals by the health worker to improve the child health activities are;

- 1 -Training of community health worker and community groups as health promoters
- 2-Intensive health education using different health education material and other methods
- 3-On job training of health workers
- d-subsidizing the cost of medical care
- 5-Provision of scale for outreach activity
- 6-Expansion of rooms in the hospital MCH unit.

6.0. DISCUSSION, CONCLUSION AND RECOMMENDATION

Only one health station which is inaccessible were not included in the survey. All under five sick children in the health station on the day of the survey were included but the number of children were very few to observe the 'management of sick children that could be due to the rainy and farming season.

The majority of facilities had all essential equipment available as well as adequate seating, potable water and latrines. All of these are required for the provision of basic child health services at health facilities.

Each health stations are responsible on average for 15 peasant associations, 11 outreach sites and a population of 16,024. The average distance that the farthest community travel to reach respective health stations is 4 hours and 20 minutes. Only half of the health institutions have a motor cycle. Each health stations are staffed with an average of two health assistants. The limited health personnel, shortage of transport and a large catchment area because of few number of health institutions limit the extension of services to the community. This issue will be addressed by extending the community health services and provision/support with the transport facilities.

Health worker knowledge of the vaccination schedule for mothers and children was found to be high. A functional refrigerator was present in only 4/6 facilities (66.6%) which limit the ability of at least 33 percent of facilities to provide regular immunization services; a first step in improving the capacity of facilities to deliver immunization services will be rehabilitating existing refrigerators and to strengthen the ability of health workers to provide regular refrigerator maintenance. Awareness of the important of checking the vaccination cards of children and their mothers is low. Vaccinating a child and their mother or referring them for vaccination at the time of the sick visit is a critical strategy for reducing missed opportunities to vaccinate. Health workers training could stress the importance of the activity.

Functioning ORT corner were presented in only few health facilities; this may reflect a lack of awareness of the importance of giving oral rehydration in the health facility. This can be improved by supervisory visit, in service training and assisting with the materials needed for ORT corners.

Majority of the growth monitoring sessions were taken and recorded/plotted correctly but only few were able to correctly interpret and only one care taker was counseled. Most of the health institutions had the necessary scales. This can be improved during supervision and in-service training. All health workers mentioned that Vitamin A prevent night blindness but only one knew the correct dosage of Vitamin A. Vitamin A was not available in all health institutions. Training of health worker and provision of Vitamin A will improve the present status.

The average duration of child's illness before visiting health institutions was seven days and only one child received the proper care at home. A low proportion of all cases were asked history questions about the presenting illness and questions which are considered important for assessing the severity of illness were asked much less frequently. Improved training could reinforce the importance of each of these areas when assessing all sick children.

A lower proportion of cases of simple diarrhea were treated appropriately; although ORT was given frequently **Antibiotics** were also over used. Antibiotics were also given for high proportion of cases of simple URTI. Only two out of ten (20%) of care takers knew correctly on how to give/administer medication. Appropriate treatment for common diseases and explaining/demonstrating the medication for care takers should be reinforced as part of in-service training and supervision.

All facilities were lacking at least one essential medication on the day of the survey and all of the facilities had experienced at least on stock out of essential medications in the previous three months. Drug availability in the public facilities is important for ensuring that health workers can provide quality case management. Defiance in the distribution and transportation were the major problems identified for the shortage of drugs and improving these will reinforce the quality of case management. Most facilities did not have written treatment guidelines for the health workers. The introduction of treatment guidelines should be considered as part of a strategy to improve routine quality of care.

No care taker knew on how to manage the sick child at home and only few knew the sign/symptom of child getting worse. Health education messages on the management of sick child at home and on signs of severity at home are considered essential for the management of sick child at home in order to prevent mortality. This component of **the** case management was least well conducted by the health workers and could also be addressed through training and supervision.

All the health education sessions observed used lecture methods. No one asked an open ended questions to verify whether the audience understood the message or not. Only few health institutions have all the necessary health education materials. This could be addressed through improved training and provision of health education materials.

Most health workers had a supervisor who had visited at least once in the previous 12 months. Only few of all **health** workers had received feedback from their supervisors. A systematic approach to supervisory activities, including the use of standard **supervisory check lists, a schedule of supervisory visits and strategies for providing** feed back and education to health workers is required.

Only one health worker had received training in the 12 months prior to the survey. This training was in the areas of integrated health care. Regular training for introducing and maintaining new skills. A clear in-service training strategy is required.

All health **workers** reported that they submitted routine reports and used the data from routine reports in some way. The interpretation, reporting and dissemination of routine information will need to be addressed as the health information system is further developed.

References

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3. Multi indicator cluster survey report, MOH, June 1996
4. UNICEF survey report, 1992.
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Health Facility Survey

Part one ; 1. Observation Check List

Identification

Child's Name _____

Address _____

Age (months) _____

Health workers Name _____

Category _____

Facility Name _____

Category _____

Date _____ / _____ / _____

1. What complaint does the mother give for bringing the child to the health institution? /Multiple answers possible/

a. diarrhea /vomiting[]

b. fever[]

c. cough/difficulty breathing[]

d. other (specify) _____

2. Does the health worker ask questions about

a. Feeding pattern

- Drinking or Eating []

- Breast feeding []

b. History of convulsions []

c. History of fever []

d. History of cough/difficulty of breathing []

e. History of vomiting []

f. History of diarrhea []

If yes - duration of diarrhea []

- blood in stool []

g. History of home treatment []

h. History of other place for seeking care []

3. Does the health worker look for;

- a. Temperature - by thermometer
- by touch
- b. Respiratory rate
- c. Pallor
- d. Visible wasting
- e. Skin turgor
- f. Sunken eyes
- g. Thirst
- h. stridor in calm child*
- Chest indrawing
- Wheezing

I. Other (specify) _____

4. What is the clinical diagnosis made by the health workers? _____

Does the health worker use any of the WHO classification for

a. ARI Y N

if yes (specify) _____

b. Diarrhea Y N

if yes (specify) _____

c. Other Y N

if yes (Specify) _____

Is the diagnosis appropriate for the assessment ? Y N

5. What type of treatment does the health worker administer or prescribe for the child (multiple answers possible)

a. Antibiotic [1

b. Antipain or analgesics [1

c. Anthelmithies []

d. ORS [1

e. Vitamin (specify) [1

f. Child is referred [1

f. Total time spent _____(minute)

Part One; 2. Exit Interview

Where do you live?

Town /urban kebele _____

Rural village _____

How long did it take you to get here today?

By car _____ (minutes)

Animal ride _____ (minutes)

Walk _____ (minutes)

15. What signs and symptoms made you to seek medical care?

16. Did you have any problems coming here today to seek medical care? Y N

If yes (specify) _____

17. How long was the duration of the child's illness before you visit the health institution today? _____ (days)

18. What did you do for the child at home? _____

19. Did you take your child anywhere before coming to the health facility? Y N

If yes , where did you take ? _____

20. Did the health worker tell you what problem the child has? Y N

if yes, what problem _____

21. What type of medication did you receive ? _____

22. Can you explain how you give/administer the medication for the child? Y N

Caretaker knows correctly;

a. How much each time Y N

b. How many times/day Y N

c. How many days Y N

23. What will you do for the child when you return home? _____

- Mother knows atleast 1 general and 1 specific aspects of home case management Y N

24. How will you know if the child's illness gets worse at home?

Mother knows atleast two signs of child getting worse at home Y N

25. Is your child referred to a higher facility? Y N

If yes ; have you decide to go? Y N

If no; why _____

26. How much money have you spent today for medical care? _____
(birr)

7. when do you refer a child with pneumonia?

8. What do you ask for in a child with diarrhoea?

9. What do you look for in a child with diarrhoea?

10. How do you classify diarrhoea? _____

11. How do you classify dehydration? _____

12. What type of treatments do you provide for different types of diarrhoea?

13. How do you classify a child's nutritional status using weight and age parameters?

14. What additional signs do you look for assessing the nutritional status of a child?

15. How do you prevent "night blindness"

a. Vitamin A

b. Doesn't know or other

16. What are the signs/symptoms of vitamin A deficiency?

17. What is the dosage for vitamin A? _____

18. What type of foods are rich in vitamin A? _____

19. What are the signs/symptoms of Iodine deficiency? _____

20. How do you prevent Iodine deficiency? _____

Part three

Facility capacity survey

Name of Health worker _____

Category/Position _____

Facility Name _____

Facility category _____

Facility status

Condition a. good b. fair c. poor

No. of rooms _____

Is there a covered waiting area Y N

Potable water Y N Specify _____

Functional toilet or latrine Y N Specify _____

1. Are there health information posters displayed? Y N

2. Is there an ORT corner? Y N

If yes a. is it being used? Y N

b. do they have measuring and mixing utensils? Y N

c. do they have cups and spoons? Y N

3. How many peasant villages are under the catchment area of the health facility?

4. What is the total number of population served by the health facility? _____

5. Do the health workers know the eligible groups for different service? Y N

If yes; for which services _____

6. How **many** out reach posts does this clinic operate? _____

7. How many days per month does this clinic make out reach visits? _____

8. What is the farthest community that this facility serves?(km)

9. What is the longest possible time it would take someone from that community to reach this facility (in hours)? _____

10. How many days of the week is this facility _____ to treat children?

II. What hours is this facility open on those days? _____

From _____ To _____

12. Which is the nearest referral facility? _____

13. How long does it usually take to reach it? (hours)

a. Walk _____

b. Animal ride _____

c. Car _____

14. What type of services are provided in this clinic? _____

15. What is the total No. of clinical staff in the facility?

Category	Number
_____	_____
_____	_____
_____	_____

16. What is the total number of clinical staff who had received training on child health related topic in the last 12 months?

Type of Training	No. of staff trained		
	Physicians	Nurses	Health assistants
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

17. Do you have a copy of the national treatment guidelines? Y N

If yes , List a. for diarrhea []

b. for AFU []

c. for malaria []

d. other (specify) _____

18. Do you charge fees for any services at this clinic? Y N

if yes, what are the fees for each service?

Service	Cost (birr)
a. Sick child out patient clinic	_____
b. Well baby clinic	_____
c. ANC	_____
d. Immunization	_____
e. FP	_____

23. Drugs and medical supplies

DRUGS	In stock now			During the last 3 month		
	Y	N	Quan. (unit)	In stock always	out of stock once	out of stock >once
1. Cotrimoxazole						
2. Amoxacyllin						
3. Procain Pencillin						
4. Chloramphenicol						
5. Ampicillin						
6. Antimalarial						
7. Mebendazole						
8. Metronidazole						
9. Paracetamol						
10. Aspirin						
11. Tetracycline eye oint.						
12. Iron						
13. Vitamin A						
14. ORS						
15. Gentian Violet						
16. IV fluids						
17. Needles/treatment						
18. Needles/vaccination						
19. Syringes/treatment						
20. Syringes/vaccination						
21. Gloves						
VACCINES						
1. BCG						
2. DPT						
3. OPV						
4. Measeles						
5. Tetanus Toxoid						

23.1. Are there expired drugs available? Y N

If yes; which ones _____

23.2. Are there expired vaccines available? Y N

If yes; which ones _____

23.3. Are frozen vials of DPT or TT in fridge? Y N

23.4. Which of following medical equipment are present?

1. Sphngnomanometer []

2. Stethoscope _ Regular []

_ Obstetric []

3. Thermometer []

4. Otoscope []

5. Tongue depressor []

6. Scissors/forceps []

7. Stitching material []

8. Delivery coach []

9. Examination bed []

10. Screen /IV stand []

11. Delivery set []

12. Steam sterilizer []

13. Cooker or stove []

23.5. Are the following furniture are available?

1. Chair Y N if yes; Quantity _____

2. Table Y N if yes; quantity _____

3. Drug shelves Y N if yes; quantity _____

4. Book shelves Y N if yes; quantity _____

23.6. Do they have Refrigerator? Y N

If yes; 1. Type _____

2. Condition _____

3. Thermometer inside Y N temp: _____

4. Temperature Chart Y N

In the last 30 days, temperature recorded up to date? Y N

Temperature above 8°C(number of days)

Temperature below 0°C (number of days)

23.7. Are vaccines arranged properly? Y N

23.8. Frozen cold packsY N

23.9. Cold boxes/vaccine carrierY N

Condition: a. functional b. non functional

24. Are drugs and other supplies stored appropriately? Y N

25. Where do you usually get medication and supplies? _____

26. What is the most common causes of a delay in delivery of supplies? _____

27. Do you have to submit any reports? Y N

If yes: Type of report How often/year

28. Do you keep a copy of the reports you send? Y N

If yes; Are the reports available? Y N

If yes: a. Do the reports coincide with the records in the registration book?

Y N

b. Do the records in the registration book coincide with the individual card? Y N

c. Do the diagnosis and treatment coincide Y N

(review atleast 20 under 5 cases)

29. In which of the following programmes do you use monitoring charts?

a. EPI [] e. GM []

b. FP [] f. AR1 []

c. ANC [] g. CDD []

d. Delivery []

30. How do use the information collected in these reports to help you with your job?

31. What type of feed back do you get from these reports?

32. Which of the following items are present?

- a. Immunization register, immunization tally sheets
- b. A stock of vaccination /child health card
- c. A stock of IT/maternal health cards
- d. Notifiable diseases report forms
- e. All essential monthly report forms
- f. A patient register

33. polyclinic service

- a. NO. of patients seen during the last month _____
- b. NO. of patients 0.4 year age seen in the last month _____
- c. Average NO. of patients seen per day _____

34. Do you have a functional supervisor? Y N

If yes: how many times have you had a visit from the supervisor in the last

- a. Six months _____
- b. 12 months _____

35. What did your supervisors do last time they supervised **you**?

36. Did you receive any feed back from the supervisory sessions? Y N

37. What are the most difficult problems you face in child health activities?

EPI _____

AR1 _____

CDD _____

GM& promotion _____

38. What is your suggestion/proposal for improvement?

Annex X: Baseline KPC Survey Report

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Map of Baso and Warana and clusters (expected from Lily)

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Executive Summary

A Knowledge, Practice and Coverage (KPC) Survey was carried out in the Baso and Warana Woreda of the North Shoa Region of Ethiopia between July 15 and July 25, 1997. This work was achieved through cooperation between the private voluntary organizations (PVO) International Eye Foundation (IEF) and Christian children's Fund (CCF) with the local and Zonal Ministries of Health and USAID/FHA/PVC.

Objectives of the survey were to obtain information on the knowledge and practices of mothers with children under two years of age in the proposed IEF/CCF Child Survival Project area concerning immunization coverage for children 12-23 months of age, and to identify health factors most commonly involved at the household level for childhood illness. The objectives of the survey were accomplished within two weeks.

Core Team members were trained in the Johns Hopkins PVO Child Survival Support Program (JHU/CSSP) Rapid KPC methodology by Ms. Riva Clement of IEF. The Core Team subsequently trained the interviewers and supervisors in proper survey techniques based on the JHU/CSSP method which uses the WHO 30 cluster sampling method. Each cluster included 10 consecutive household survey interviews with mothers of the children. A total of 300 mothers were interviewed.

Major findings include:

For management purposes of the program it is important to note that almost a third of mother's reported being able to read and write. The vast majority are available at their homes during the day and are from the ethnic group Amhara.

Immunization coverage was below the national rate. as expected in this predominantly rural area. Measles and DPT coverage were at

the same rate, 21%. Full immunization was only 15.5% The drop-out rate was calculated at 31.4%.

Mother's knowledge of immunization is also low. Only 15% of mother's reported knowing that the measles vaccine should be given at 9 months and 92.2% reported not knowing why TT vaccination was given.

Mother's were asked to identify children with ARI (22.3%) or diarrhea (32.6%) in the past two weeks. Treatment seeking behavior for diarrhea was assessed. The majority of mother's sought treatment from a hospital (58%) while only 6% sought treatment from a health post and none from community health workers (CHA or TBA).

Only 5.6% of mothers stated that rapid initiation of fluids was an important action to take during diarrhea. A few mothers stated that withholding fluid or food was an important response to diarrhea.

Continuous breast feeding was not found to be a problem in the project area with 82.4% of mothers with children 20 to 23 months of age reporting to still be breast feeding. However, exclusive breast feeding was only at 17.7%. Weaning practices were at a reasonable level with 46.7% of mothers giving solid or semi-solid foods to their 6 through 9 month olds.

Initiation of breast feeding was a particularly problematic area with 18.3% of women waiting more than 8 hours (1/2 day) to begin and 33% waiting three days. Only 6% of mothers reported that their child had ever received a vitamin A capsule.

1.0 Introduction

The International Eye Foundation (IEF) which has a long history of successful child survival programs recently partnered with the Christian Children's Fund (CCF) who has been in Ethiopia since 1971 to propose a child survival program for the Baso and Warana Woreda of Ethiopia.

National data on immunization coverage and health practices is available from a recent multi cluster survey (MOH, June 1996). 33.5% of children 12-23 months are fully immunized, with 44.8% OPV3 and DPT3 and 37.5% immunized for measles. ORT use is very high at 95.2% nationally. A recent facilities survey conducted by BASICS in the Southern region of Ethiopia revealed that only about 20% of health facilities in that area had a functioning ORT corner. Health indicators for rural areas are in general lower than those in urban centers.

The majority of the Baso and Warana Woreda is rural highlands with **some** lowlands and an urban center, Debre Birhan. The survey took place during the rainy season which made transport difficult. The **survey** took only one additional day from the original schedule due to the weather conditions.

The proposal for the program targets maternal and child health interventions which are proven to reduce child mortality rates. **The** proposed interventions are also supportive of the Ministry of Health (MOH) goals for the nation and the region and address the **major** causes of mortality in Ethiopia. The objectives of, the project as stated in the proposal are:

Immunization

- 1) 70% of children 12-23 months of age are fully immunized,
- 2) 30% of women 15-49 years will be immunized against tetanus.

Case Management of Diarrhea

- 1) 75% of children will receive ORT during diarrheal episodes,
- 2) 75% of children will receive the same amount or more liquids during a diarrheal episode,
- 3) 75% of children will receive the **same** amount or more of breast milk during a diarrheal episode,
- 4) 75% of mothers can correctly identify dehydration and appropriate therapy,
- 5) 75% of mothers can correctly identify the 3 rules of home management of diarrhea.

Nutrition and Vitamin A

- 1) 60% of children 6-71 months **receive** high dose vitamin A **semi-**annually,
- 2) 30% of post-partum women **receive** high dose vitamin A within 30 days following delivery,
- 3) 40% of children 0-4 months will be exclusively breastfed,
- 4) 80% of children at CCF project sites identified with severe malnutrition **or measles** will be treated with high dose vitamin A.

Objectives **will** be modified in the DIP development process to reflect the KPC survey results.

2.1 Survey Methodology

All methods for the survey were utilized directly from the JHU/CSSP Rapid KPC Training Guide. Mother's of children up to two years old were included in the survey. Only the youngest child in the proper **age** range was used for questioning (index child). **Cluster** selection was based on the Probability Proportionate to Size (**PPS**) Cluster Sampling technique, performed by the CCF staff prior to the start of survey activities. A **total** of 30 clusters were chosen from all peasant villages and kebeles in the woreda. House

selection was random, using a sampling frame of tax payers' list available for each population unit. Once the first house was identified, subsequent households were chosen by nearest proximity. If the mother of a child under two was identified to live in the home but was unavailable, the interview rescheduled a visit for later the same day. Mothers that were away from their homes for longer than the survey day were skipped.

The Core Team was trained for a total of two days and Supervisor/Interviewer training took three days. A questionnaire was developed from the standard JHU/CSSP format which was modified during the training and field tested in kebele 05 of Debre Birhan and in a rural village. Neither field test area had be chosen as a survey cluster. In general teams of one supervisor and two interviewers were used per cluster.

2.2 Conduct of Survey

The survey was conducted from Monday, July 21 through Friday, July 25, 1997. It was originally thought that the heavy rains would preclude the team from reaching some of the more remote clusters. Teams and drivers were advised to use caution, however all clusters were reached as originally selected and by Friday afternoon all teams had returned safely. The maximum distance that was traveled was nine hours walking from Debre Birhan (see annex). Teams traveling to the most remote clusters spent the night in the village, usually at the home of the peasant association head or with an interviewed family.

Supervisors were given the name of the first household to 'select and were responsible for correcting the questionnaires (see annex for list of errors). Relatively few errors were found on the questionnaires indicating the quality of the team. An events calendar was devised by the CCF Staff prior to survey activities which was used to determine the age of the child in months.

3.0 RESULTS

The following answers were given to 41 questions. 300 questionnaires were entered into EPI/INFO and analyzed by consultant statistician.

3.1 Identification Module

The ages reported by mothers are thought to be accurate. During the survey training it was decided that as mothers rarely know their exact age, the interviewer would need to probe for an estimated age. It was also decided that interviewers would not expend great effort to determine mothers' age accurately, but would focus on the child's age.

The mean age reported by mothers surveyed is 29 years. 13.7% of mothers who were surveyed are under 21 years. Seventy two (24%) mothers are over 35 years (Table 1).

Sixty two (20.7%) of children in the survey are under four months of age. 40.7% (122 out of 300) children in the survey are 12- 23 months of age. The mean age of children in the survey is 10 months (Table 2).

3.2 Mothers' Education and Occupation

Only 31.7% (95 out of 300) of mothers surveyed reported that they could read and write. Only 71 mothers (23.7%) reported having any formal education

Only 18 mothers (6%) reported that they were out of their home for long periods of **time**, while only 54 (18.1%) mothers reported doing any income generation work. 139 mothers (46.3%) reported that they took their child with them when they leave home.

9(3%) mothers reported that their husband takes care of the child.

86(28.7%) mothers reported that older sisters or brothers takes care of the child. 56(18.7%) leave their child with relatives, 8(2.7%) with neighbors and six with a maid.

96.7% of the population is Amhara, and the remaining is Oromo.

3.3 Breast feeding/Nutrition Module

Of all the mothers interviewed, 275 (91.7%) were breast feeding currently. Of those mothers in the survey with children 20-23 months of age (34 mothers), 28 mothers (82.4%) were still breast feeding their child.

Sixty-four mothers (21.3%) reported that they had breastfed their child within one hour after delivery. 33 mothers (11%) reported breast feeding their child between one and eight hours after delivery. 199 mothers (68%) reported breast feeding more than eight hours after delivery, two mothers did not remember when they first breast feed and 7 mothers (2.3%) stated that they never breast feed their child after delivery. Among those who breast feed their child after 8 hours, 19 (6.6% of mothers ever breastfed) mothers started after one day, 24 (8.2% of everbreastfed) after two days and 90 (30.7% of ever breastfed) after three days (Table 3).

Of the children 0,1,2, and 3 months of age (62 children), 11 (17.7%) were being exclusively breastfed; in other words, they were not being given any food or fluids. Of those children 6,7,8 and 9 months of age (46 children), 22 (46.7%) were being given solid or semisolid foods (Table '4).

Of the children in the survey six months of age and older. (156 children), 55 (35.3%) were being given a food enriched with dark green leafy vegetables, 47 children (30%) were being given fruits, 29 (18.5%) were being given foods rich in vitamin A, 137 (45.5%) were being given **meat** and fish, 74 (47.4%) were being given beans and 93 (59.6%) were being given eggs or yogurt. Hundred and twenty

eight mothers (82.1%) reported adding sugar to the child's diet and 111 (71.2%) reported adding fat. Ten (3.4%) mothers add Iodized salt to the child's food (Table 5).

When asked when a mother should start giving a child foods in addition to breast milk, 31.3% (94 out of 300) mothers responded with an age later than six months. Eighty-eight mothers (29.3%) responded with about 6 months of age, 77 mothers (25.7%) responded between 4-6 months of age, 27 mothers (9.0%) indicated that they did not know and 15 (5.0%) before the fourth month of age (Table 6).

When asked what foods additional to breast milk should be, 25% (75 of 300) responded with a food rich in iron, and 14.7% (44 of 300) responded with a food rich in vitamin A. Thirty mothers (10%) stated that a mother should add butter or oil to the child's food. 66.3% (199) responded with a category other than those listed in question 13. 30 mothers (10%) said that they did not know what these foods should be.

When asked which foods can you given to prevent night blindness, 41 mothers (13.7%) responded that they did not know. 32 mothers (10.2%) responded with green leafy vegetables, 20 (6.7%) responded carrots, 35 (11.7%) Fruits, 41 (13.7%) Liver, 40 (13.3%) breast milk, 38 (12.7%) Egg yolk and 19 (6.3%); others. 26 (8.7%) mothers know vitamin A prevents night blindness.

3.4 Maternal Care Module

Of the mothers interviewed, 90 (30%) had TT vaccination card. Twenty-four (8%) reported having lost their TT vaccination card, while 186 (61.3%) stated that they never had a TT card.

Of the 90 mothers who had a TT card, 67 (22.3% of all mothers) had

at least two Tr injections indicated on the card. Twenty mothers (6.7%) of all mothers had one TT injections indicated on the card.

When asked how soon after a women knows she is pregnant should she see a health professional, 44 mothers (14.7%) indicated a **time** period within the first trimester of pregnancy, 44 mothers (14.7%) indicated a time period within the second trimester, and 28 mothers (9.3%) indicated a **time** period within the third trimester. One mother indicated that there was no need to see a health professional during pregnancy, and 183 mothers stated that they did not know when a pregnant woman should see a health professional.

When asked what foods are good for a woman to eat to prevent pregnancy anemia, 41 mothers (13.7%) indicated a protein food rich in iron and 48 'mothers (16%) indicated a green leafy vegetables rich in iron. 75 mothers (25%) indicated a food type other than the categories listed, and 136 (45.3%) mothers stated that they did not know which foods would help prevent anemia.

Fifty-eight mothers (19.3%) stated that they visited a health institution for prenatal care.

Twenty mothers (6.7%) stated that they ate more food than usual during pregnancy and 101 mothers (33.7%) stated that they ate the same as usual during pregnancy. 168 mothers (56%) said they ate less than usual. Ten mothers did not know.

When asked who tied and cut the cord at the chid's delivery, 45 (15%) mothers indicated a health professional. Nine mothers did not know who had tied and cut the cord. Hundren and **eighteen** (39.3%) mothers indicated a traditional birth attendant, 93 mothers (31%) indicated a family member, and seven mother stated that they themselves tied and cut the cord. Twenty-eigh (9.3%) mothers indicated someone else had done it.

3.5 Vitamin A

Eighteen (6%) mothers responded that their child received vitamin A capsules at least once, 168 (56%) never received and 114 (38%) did not know. Thirteen (4.3%) mothers received **vitamin A** capsules after delivery while 260 (86.7%) did not receive and 26 (8.7%) did not know.

3.6 Diarrhoeal Disease Module

Ninety-eight mothers (32.6%) stated that their child had diarrhoea within the two weeks prior to the survey.

Of the 98 children with diarrhoea during the two weeks prior to the survey, 77 (88.8%) were still being breastfed. Of these 77 children, 10 (13.0%) were given more breast milk than usual and 48 (49.0%) were given the same amount of breast milk as usual. In sum 58 of the 98 children (59.2%) were being given more or the same amount of breast milk than usual during the diarrhoea episode (Table 7).

Twenty-nine mothers (29.6% of 98) gave their children less breast milk than usual during diarrhoea, and 4 mothers (4.1%) stopped giving their child breast milk completely during the diarrhoeal episode. In sum, 33 out of 98 (33.6%) gave less breast milk or stopped giving breast milk completely (Table 7).

Out of 98 children with diarrhoea during the two weeks prior to the survey, 52 (53%) were being given fluids other than breast **milk**. Of these 52 children, 7 (13.5%) were given more fluids than-usual and 21 (40%) were given the same amount of fluids as usual. In sum, 28 (53.8%) of the 52 children were being given fluids other than breast milk more or the **same** amount as usual during the diarrhoea episode (Table 7).

Twenty-four mothers (24.5%) gave their child less fluids than usual during diarrhoea, and 11 mothers (11.2%) stopped giving their child fluids completely during the diarrhoeal episode. In sum, 35.7% (35 out of 98 mothers) gave less fluids or stopped giving fluids other than breast milk completely during their child's diarrhoea episode.

Twenty-six mothers (26.8%) gave their child less food than usual during diarrhoea, and 14 (14.4%) mothers stopped giving their child food completely during the diarrhoea episode. In sum, 40.8% (40 out of 98 mothers) gave less food or stopped giving food completely during their child's diarrhoea episode.

Of the 98 children with diarrhoea during the **two** weeks prior to the survey, two children **were** given ORS sachets and cereal based ORT each, **while** four children each were given salt-sugar solution and home fluids.

Sixty-one (62.2%) of mothers did not give any treatment for their child's diarrhoea, and 32 mothers (32.6%) gave something other than the categories listed. Two mothers gave their children medicine as treatment for their child's diarrhoea (Table 8).

Of the 98 mothers of children with diarrhoea during the two weeks prior to the survey, 33.6% (32 mothers) sought advice or treatment for their child's diarrhoea (Table 8).

Of the 33 mothers who sought advice or treatment for their child's diarrhoea 57.7% (19 mothers) went to a hospital, 6.0% (2 mothers) went to a health post, and none of them went to community health workers or traditional birth attendants, or a traditional healer. One mother (3.0%) sought advice from relatives for her child's diarrhoea.

Mothers were asked what signs/symptoms would cause them to seek advice or treatment for their child's diarrhoea. Fifty-nine

mothers (19.6%) stated that "fever" is a sign/symptom and mothers 22 mothers (7.3%) responded to this question with vomiting as a sign/symptom. Twenty-five mothers (8.3%) stated that blood in the stool was a sign/symptom and 22 mothers (7.3%) stated that loss of appetite was a sign/symptom that would cause them to seek advice or treatment for their child's diarrhoea. Twelve mothers (4.0%) responded that prolonged diarrhoea would cause them to seek advice or treatment.

Hundred and ten (36.6%) women stated that taking the child to the hospital or clinic is an important action to take if the child has diarrhoea. Seven mothers (2.3%) stated that giving the child smaller more frequent feeds is an important action, and 17 mothers (5.6%) stated that initiating fluids rapidly is an important action, and 4 mothers (1.3%) stated that feeding more than usual after the diarrhoea episode is an important action. Hundred and seven mothers (35.6%) did not know any action to take when their child had diarrhoea. Eighty-four mothers (28.0%) stated another action. Four mothers (1.3%) stated that withholding fluids is an important action, and two mothers stated that withholding foods is an important action to take if the child has diarrhoea.

Twenty-two mothers (7.3%) responded with giving the child foods with high caloric content as important action to take when the child is recovering from diarrhoea. Twenty-nine mothers (9.6%) responded to this question by indicating that giving more fluids than usual is an important action. Forty-six mothers (15.3%) stated that giving the child smaller, more frequent feeds is an important action to take when the child is recovering from diarrhoea.

3.7 Immunization Module

Ninety mothers (30.0%) stated that their child had received at least one immunization.

Forty-six mothers (15.3%) stated that a child should receive its measles vaccine at age nine months. Ten mothers (3.3%) gave an age other than nine months. Hundred and eighty-nine mothers (63.0%) stated that they did not know that a child should receive measles vaccine. In sum 84.6% of mothers did not know that a child should receive the measles vaccine at nine months of age.

Twenty-three mothers (7.6%) stated that the main reason pregnant women need to be vaccinated with the tetanus toxoid vaccine is to protect both the mother and child. Two hundred and seventy seven (92.3%) of mothers stated that they did not know, or stated something other than the categories listed in the question.

Sixty-five mothers (21.6%) stated that a pregnant women needs **more** than two tetanus toxoid injections to protect the newborn infant from tetanus, and 8 (2.6%) stated that a pregnant women needs two TT injections. In sum, 73 (24.3%) of mothers stated that a pregnant women needs at least two TT injections to protect the newborn infant from tetanus.

Two hundred and twenty six mothers (75.3%) stated that they did not know how many TT injections a pregnant woman needs, or stated that one or no TT injection is needed to protect the newborn.

Seventy-nine (26.3%) had an immunization card for their child. Twelve (4.0%) stated that they had lost their child's immunization card, and 207 (69.0%) never had a card for their child or did not know.

The immunization status of children 12-23 months of age is based on the immunization card actually seen by the interviewers. There are 122 children in the survey 12-23 months of age. The following are the coverage figures for BCG, OPV, DPT, and Measles (Table 9).

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Table 1. Distribution of Mothers by Age

AGE in years	Number	Percent
16 - 20	41	13.7
21 - 25	89	29.3
26 - 30	63	21.0
31 - 35	35	11.7
36 - 40	36	12.0
41 - 45	31	10.3
46 - 50	5	1.7

Table 2. Distribution of Children by Age

Age in Months	# Children	Percent
1	31	10.3
2	14	4.7
3	17	5.7
4	22	7.3
5	13	4.3
6	15	5.0
7	19	6.3
8	7	2.3
9	5	1.7
10	13	4.3
11	22	7.3
12	16	5.3
13	18	6.0
14	9	3.0
15	7	2.3
16	9	3.0
17	8	2.7
18	12	4.0
19	9	3.0
20	11	3.7
21	9	3.0
22	5	1.7
23	9	3.0

Table 3. Breast Feeding Pattern of Children 0-23 Months

Pattern	Number of Children	Percent
Currently Breast Feeding (N=300)		
Yes	274	91.6
No	25	8.4
Ever Breastfed (N=21)		
Yes	14	66.7
No	7	33.3
Initiation of Breast Feeding (N=155)		
Within one hour	34	21.3
Within one half day	55	35.5

Table 4. Weaning Pattern of Infants Below Four Months of Age.

Type of diet (N=62)	# Infants	Percent (%)
Herbal tea	8	12.9
Cow's milk/milk powder	17	27.9
Porridge, gruels, food made of 'Somolino' or 'furno-flour'	2	3.3
Dark green leafy vegetables such as Kale or 'Kosta'	1	1.6
Meat or fish	1	1.6
Egg, yogurt, cheese	1	1.6

Table 5. Weaning Pattern of Infants Four to Six Months of Age.

Type of Diet (N=50)	# Infants	Percent (%)
Herbal tea	16	32.0
Cow's milk/milk powder	23	46.0
Pottage, gruels, food made of 'Somolano' or 'furno-flour'	5	10.0
Fruits	3	6.0
Egg, yogurt, cheese	5	10.0

Note. Multiple answers are possible, rates are overlapping

Table 5. Knowledge about Age of Introduction of Weaning Food

Age	# Mothers (respondants)	Percent (%)
before four months of age	15	5.0
four to six months of age	77	25.8
around the sixth month	88	29.4
after the sixth month	93	31.1
don't know	27	9.0
Total	300	100.0

Table 7. Feeding of Infants during Diarrhoeal Episodes

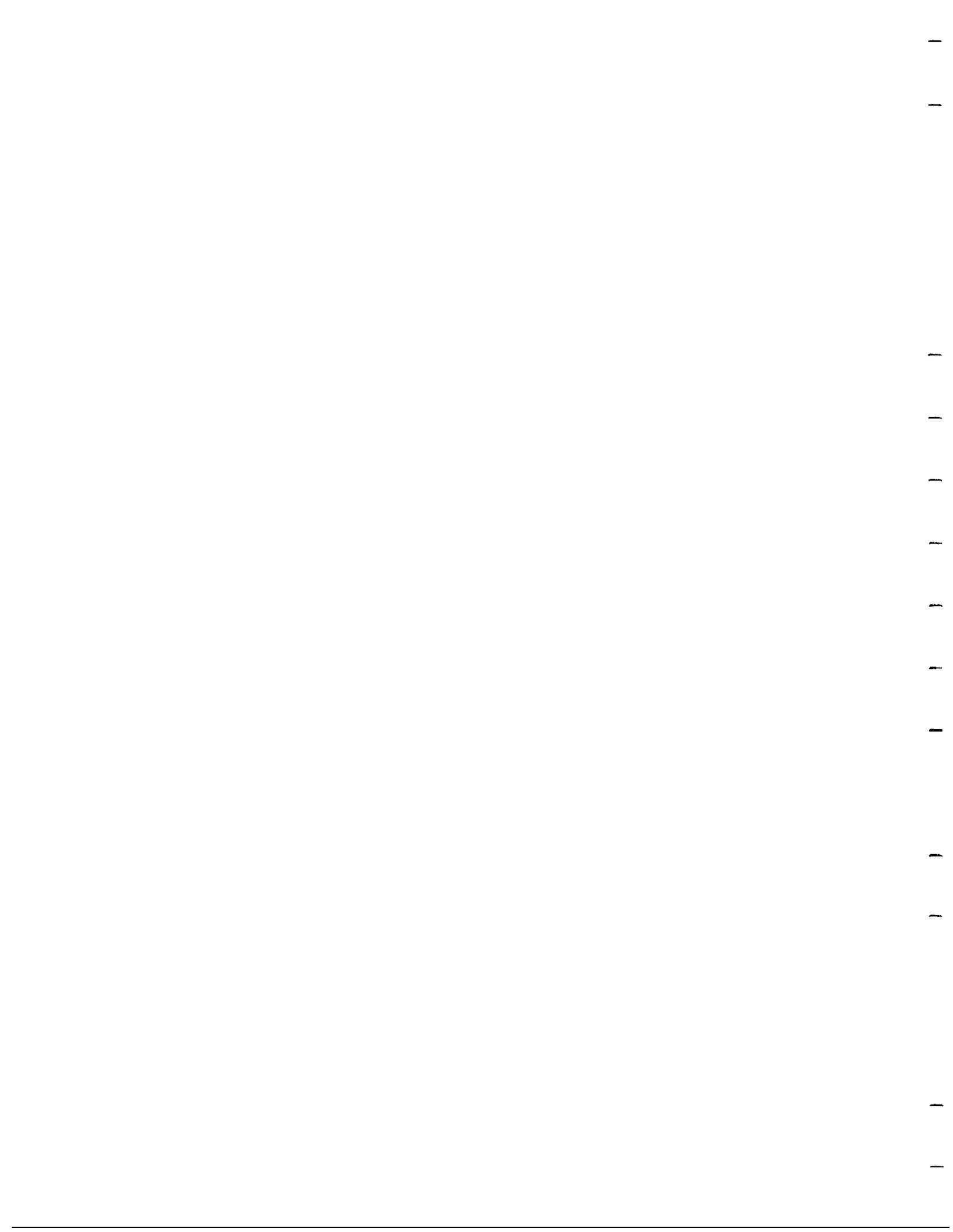
Feeding type/pattern (N=97)	# Infants	Percent (%)
Breast feeding		
same as usual	48	49.5
less than usual	10	10.3
stopped/discontinued	28	28.9
	4	4.1
Fluids		
same as usual	21	21.6
less than usual	7	7.2
stopped/discontinued	23	23.7
	11	11.3
Foods		
same as usual	19	19.8
more than usual	6	6.3
stopped/discontinued	25	26.0
		14.6

Table 8. Source of Medical Care/Advice Sought during Diarrhoeal Episodes

Source of Care/Advice (N=32)	# Children	Percent (%)
Health station	18	56.2
Private clinic/physician	8	25.0
Pharmacy/drug store	1	3.1
Health	1	3.1
Friends, relatives	2	6.2
Other places	1	3.1
	1	3.1

Note.

No medical care/advice was sought from community health workers (CHAs, or TBAs), or from traditional healers.



Tabel 9. Immunization Status/level of Children
12-23 Months of age

	Number of Children	Percent
Antigen		
BCG	37	30.3
OPV-1	35	28.6
OPV-2	30	24.5
OPV-3	24	19.6
DPT-1	37	30.3
DPT-2	33	27.0
DPT-3	26	21.3
Measles	26	21.3
Drop-outs		
(OPV-1 - OPV-3)/OPV-1	11/35	31.4
(DPT-1 - DPT-3)/DPT-1	11/37	29.7
Overall Immunization Status		
Not immunized at all	84	68.8
Partially immunized	19	15.5
Fully immunized	19	15.5

Village Number	Population	Cumm. Population	Cluster Number
1	3962	3962	1/2
2	1773	5735	
3	2854	8589	3/4
4	11355	9944	
5	2211	12155	5
6	3930	16085	6/7
7	850	16935	
8	1927	18862	8
9	530	19392	
10	3988	23380	9/10
11	1244	24624	11
12	1261	25885	
13	1662	27547	12
14	933	28480	
15	1214	29694	13
17 16	1512 901	30595 32107	14
18	754	32861	
19	1653	34514	15
20	1405	35919	16
21	766	36685	
22	1504	38189	17
23	1624	39813	
24	2070	41883	18
25	1492	43375	19
26	1927	45302	20
27	1122	46424	
28	1350	47774	21
29	1737	49511	22

Village Number	Population	Cumm Population	Cluster Number
30	1396	50907	
31	1027	51934	23
32	757	52691	
33	1356	54047	24
34	1393	55440	
35	1006	56446	25
36	899	57345	
37	1124	58469	26
38	2043	60512	
39	1305	61817	27
40	974	62791	
41	2291	65082	28
42	1042	66124	29
43	1263	67387	
44	863	68250	30

random # = 1523

samp interval = $68250/30 = 2275$

4.0 Discussion/conclusions/Recommendations

The present KPC survey attempted to address three major areas in child health; diarrhoeal diseases, immunization and also childhood nutrition (breast feeding and vitamin A), which correspond to the primary intervention strategies of the child survival program planned in and around Debrebirhan. The assessment was generally focused on two aspects; knowledge/practice of mothers related to the child health issues, and the corresponding program coverage by health institutions.

A total of 300 mothers with children below age of 23 months and the same 300 children were included in the survey. Age of mothers ranged from 16-50 years, while 122 of the 300 children were in the age group 12-23 months.

Initiation of breast feeding in the study area was found out to be late. Only 21.3% of mothers recalled to have breastfed their newborns within the first hour after delivery. A considerable proportion of women (68.0%;) started breast feeding more than eight hours after delivery, out of which 90 (30.7%) breastfed their newborns three days after delivery.

Hot water with sugar, and in some cases, a bolus of uncooked butter have been the usual substitute of breast milk before initiation. Eventhough the questionnaire was not designed to identify reasons for delayed initiation of breast feeding, generally it appears to be more of a tradition inherited from older parents, rather than to have some particular reasons. T this end, lack of knowledge about the importance of early initiation of breast feeding in general and of the colostrum in particular can not be ruled out. Accordingly, a lot has to be done through health education of mothers addressing the importance of early initiation of breast feeding.

Exclusive breast feeding to infants below four months of age was considerably low in this study, partly because the computation identified a high rate of hot water with sugar, and/or swallowing butter during the first few hours up to three days after delivery, as a result of the delayed initiation of breast feeding.

On the other hand, the 82.4% of continuation of breast feeding (to children 20-23 months of age) is even higher than the Multiple Indicator Cluster Survey (MICS) report of 77.0% among children up to age 12 months (1). This difference is even more apparent when considering the age group of children involved. The overall rate of breast feeding (91.7%) is also quite high considering the age group of children breastfed, which ranges from zero to 23 months.

Age at introduction of weaning was not determined in this study. However, about 30.0% of infants below four months of age were being given weaning food; cow's milk (27.4%), "Herbal tea" (12.9%), porrage, gruel, etc. (3.2%), and carrots, dark green leafy vegetables, egg, etc. Likewise, 46.7% of children in the age group six to nine months were getting weaning food.

About 35.3% of the children studied were being given food enriched with dark green leafy vegetables and 18.5% were getting other foods rich in Vitamin A. In the MICS study (1), mothers were reported to give to their children Ethiopian cabbage and carrots in 18.1% and 17.5% of the cases respectively.

Only 6.0% of mothers reported that their children received Vitamin A capsules at least once, and only 8.7% of the mothers know Vitamin A prevents night blindness. Whereas, in the MICS report 21.0% of women have heard any messages about Vitamin A.

The Vitamin A supplementation program through the EPI-plus approach is still in its early days of implementation at the lower levels of health facilities. So as to promote the EPI-plus strategy and increase coverage of Vitamin A supplementation activities, there is a need to work on the health education part of interventions on the importance of Vitamin A and its sources.

The two week prevalence of diarrhoea found out in this study, 32.6%, is higher than other reports (2-5) which are in the range of 11-26.2%. Part of the explanations has to do with methodological differences between the studies, particularly the age group studied, which in this study included children zero to 23 months old. The prevalence of childhood diarrhoea could be higher in the younger age group (0 to 23). This possibility is supported by another study (5) where 80.0% of the childhood diarrhoea was reported in children below age 23 months.

Continuation of breast feeding during diarrhoeal episodes was at 88.8% in this study. On the other hand 59.2% of children with diarrhoea received more or the same amount of breast milk than usual during the diarrhoeal episodes. More than 33% of mothers gave less breast milk or stopped giving breast milk completely. In another study, 71.2% of mothers gave more or the same amount of breast milk during diarrhoeal episodes (5).

More than 35% of mothers gave less fluids or stopped giving fluids other than breast milk completely, while 40.8% gave less food or stopped giving food completely during their child's diarrhoeal episode. Both figures above are considerably large indicating the need for an effective health education intervention addressing basic principles in the home care of children with diarrhoeal diseases.

The overall immunization status determined in this study indicates that out of 122 children aged 12-23 months, 68.8% were not immunized at all, whereas 15.5% were fully immunized and another 15.5% were partially immunized. In a similar study (6) on immunization coverage, 37.1% of children 12-23 months of age were fully immunized while 35.7% were not immunized at all. In the MICS report 33.5% of children were fully immunized (1). In another report (7) of a joint national review of the EPI (1994 coverage) as determined by a household cluster survey in June 1995, routine childhood immunization coverage was 37% with DPT-3. In another study by Worku (10), the immunization status was determined to be 42.1% for BCG, 24.3% for DPT3, 24.3% for OPV3, 28.8% for Measles, and 32.3% for maternal TT2.

Though the study was not designed to find 'out reasons for poor immunization coverage, the reasons already identified elsewhere in the country through various studies are believed to hold true. Some of these reasons for failure of immunization include, poor and inadequate health infrastructure particularly in rural areas, deficiency in the surveillance system, high defaulter rates and missed opportunities, weakness exhibited in Information Education and Communication (IEC) efforts, and lack of involvement on the part of the other partners and the community at large.

The poor immunization coverage in our study area, as well as, the probable reasons necessitate attempts to increase accessibility of immunization programs, promote IEC activities and community participation, which constitute the intervention strategies of the forthcoming child survival program (CSP).

Assessment of the knowledge of mothers revealed that about 85% of them do not know that a child should receive measles vaccine at

nine months of age. About 75% of them did not know how many TT injections a pregnant women needs so as to protect her newborn from tetanus. This remarkable lack of knowledge indicates the need for intensive community health education efforts coupled with more accessible services.

In general the KPC survey conducted as a baseline to the forthcoming child survival program has identified various deficiencies in terms of knowledge of communities and program coverage by health facilities. Accordingly, intervention strategies such as an intensive community health education program, improving accessibility of child health programs, as well as, capacity building at health institutions, should make up vital components of a CSP to be implemented in the area.

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Annex A.

Name of UDA or PV	Population	Cumulative Population
1. Kebele 01	3611	3611
2. Kebele 02	4662	8273
3. Kebele 03	4545	12818
4. Kebele 04	5713	18531
5. Kebele 05	3377	21908
6. Kebele 06	5138	27046
7. Kebele 07	3819	30865
8. Kebele 08	3885	34750
9. kebele 09	4643	39393
10. Tija Sar	1399	40792
11. Mati	452	41244
12. Assahi	814	42058
13. Angui	982	43040
14. Chinbire	783	43823
15. Chachat	1139	44962
16. Wodebka	1059	46021
17. Gedemanna Argane	1130	47151
18. Gifit	1129	48280
19. Mesensa	1059	49339
20. Woulgim	875	50214
21. Metkoria	1183	51397
22. Dinbuna Gedenge	1189	52586
23. Gushima Wouha	773	53359
24. Dinjan	1517	54876
25. Kasma	1254	56130
26. Zigbina Mekecha	1606	57736
27. Ginbi Wajja	893	58629
28. Zendo Gur	830	59459
29. Chelema Washa	1150	60609
30. Nitona Weidme	1094	61703
31. Talak Amba	1342	63045
32. Moi	1028	64073
33. Gashwot	1292	65365
34. Meskeleyes	700	66065
35. Keterana Genansa	1186	67251
36. Ate Washa	1222	68473
37. Birbirsa	1203	69676
38. Wabina Ketanit	1293	70969
39. Genet	1036	72005
40. Tebase	587	72592
41. Kaset/AmoraGedel	654	73246
42. Daletti	1616	74862
43. Angulala	1287	76149
44. Weina Abadera	855	77004
45. Alloberet	1219	78223
46. Milki	1225	79448
47. Kermargefia	1249	80697
48. Faji	1153	81850
49. Karafino	804	82654

50. Wainio	710	83364
	477	83841
52. Wonlichu	522	84363
53. Etiyo	938	85301
54. Saria	571	85872
55. Ametegna Ager	858	86730
56. Ganguna Tenkole	1395	88125
57. Zanjira	1361	89486
58. Woushwoushign	1418	90904
59. Tiliku Dilila	1000	91904
60. Atakilt	1000	92904
61. Tinishu Dilila	1231	94135
62. Keba	1125	95260
63. Bere Egir	1431	96691
64. Arsi Amba	1435	98126
65. Debele	1553	99679
66. Motatit	1168	100847
67. Selam Amba	1294	102141
68. Muter	2347	104488
69. Telasa	1047	105535
70. Anget Mewgia	1295	106830
71. Dinkwanina Gunagunit	1844	108674
72. Bakello	1934	110608
73. Anbato Defer	1288	111896
74. Dinbaro	1450	113346
75. Tiraro Debir	1563	114909
76. Debreko	1623	116532
77. Legefada	1414	117946
78. Lanjagind	1817	119763
79. Birze	544	120307
80. Abore Ager	1057	121364
81. Gosh Ager	974	122338
82. Loye Ager	1038	123376
83. Amer Ager	946	124322
84. Asfe	1224	125546
85. Buli	1037	126583
86. Abamote	1476	128059
87. Gimel Jerba	1021	129080
88. Negarit Bahir	989	130069
89. Mezerzir	936	131005
90. Mehal Amba	1309	132314
91. Motina Endod Washa Maider	966	133280
	843	134123
	1679	135802
93. Nehas Kum Amba	981	136783
94. Chachatna Sefedamba	1040	137823
95. Metaf Washa	1214	139037
96. Lay Mush	1107	140144
97. Dube Ager	1005	141149
98. Tach Mush	939	142008
99. Abisa Ager	1532	143620
100. Adgo Ager	1273	144893
101. Tikurit Bado		

102 Kura Mariam	1103	145996
103 Gudo Beret	1523	147519
104 Gine Beret	1041	148560
105 Baso Dengora	1777	150337
106 Andit Tid	1386	151723
107 Adisege	1085	152808
108 Wonberona Teko	1485	154293
109 Gedana Deme Ayetemesh	1550	155843
110 Tembezena Beterige	1384	157227
111 Senbeyena Mochet Washa	1308	158535
112 Zenjero Gedel	1283	159818
TARMABER		
113 Tikur Chika	1111	160 929
114 Mehal Mojo	2493	163 422
115 Gudo	2431	165 853
116 Wonfesna Endod Mosho	3034	168 887
117 Mesen Terater	2613	171 500
118 Jen Gudo	2446	173 946
119 Segetna Jure	1856	175 802
120 Weger	1160	176 962
121 Wegana Gero	1903	178 865

Note

Selected clusters are indicated in bold

Sampling Interval:

$$159\ 818/30 = 5327$$

Random Number = 1641

Annex A.

Cluster Selection Table

Annex B.

Age Conversion Calender

Age Eligibility

Date of Birth: August 26, 1995 - day of interview
(Nehasse 19, 1987 - " " ")

<u>Year and Month of Birth</u>		<u>Age in Months</u>
July	1997 (Hamle 1989)	0
June	1997 (Sene 1989)	1
May	1997 (Ginbot 1989)	2
April	1997 (Miazia 1989)	3
March	1997 (Megabit 1989)	4
February	1997 (Yekatit 1989)	5
January	1997 (Tir 1989)	6
December	1996 (Tahisas 1989)	7
November	1996 (Hidar 1989)	8
October	1996 (Tikimt 1989)	9
September	1996 (Meskerem 1989)	10
August	1996 (Nehasse 1988)	11
July	1996 (Hamle 1988)	12
June	1996 (Sene 1988)	13
May	1996 (Ginbot 1988)	14
April	1996 (Miazia 1988)	15
March	1996 (Megabit 1988)	16
February	1996 (Yekatit 1988)	16
January	1996 (Tir 1988)	17
December	1995 (Tahisas 1988)	18
November	1995 (Hidar 1988)	19
October	1995 (Tikimt 1988)	20
September	1995 (Meskerem 1988)	21
August	1995 (Nehasse 1987)	22
July	1995 (Hamle 15, 1987)	23

Annex C.

Evaluation of Training and Pretesting Sessions

An evaluation exercise was attempted to identify and improve problems in the conduct of the KPC-Survey.

The majority of interviewers/supervisors agreed that the topics covered each day during the training **sessions have been well** understandable and the presentation have been of high quality. The interaction of the trainees was also be described as participatory.

The pretest was also described as being very helpful to the actual data collection process.

The training environment was described by **most** of the interviewers/supervisors as being below their expectations, particularly referring to the inadequacy of payments.

Annex D.

Errors Identified on the Questionnaire and during Filling

Question 32 has been the main area of potential problems. In five different forms, inconsistencies were identified between the corresponding antigens of vaccines which should otherwise have been given at the same time. This may not necessarily be an error during filling the questionnaire. But could also be due to lack of the particular vaccine whereby it was not given at the same time with the other counterpart. The interviewers/supervisors also claimed that they copied the immunization cards correctly.

A few other minor errors were corrected by consulting the interviewers.

Annex E.

List of Interviewers/Supervisors for the CSP-KPC Survey

No	Name of Interviewer /Supervisor	Educational Status	Work Place/ Residence	Placement in the Survey
1	Ayalew Shewangizaw	12 grade	Gudoberet Re	Data Collect
2	Senite Abebe	" "	" Resident	" "
3	Anteneh Solomon	" "	" "	" "
4	Eshetu Bizuneh	Social Work	" Project	" "
5	Tekliye Aklile	" "	" Project	" "
6	Hailemariam Aseffa	" "	Bakelo Proj	" "
7	Haile Gebre Giorgis	12 grade	" Res	" "
8	Tesfaye Tadesse	" "	" "	" "
9	Astatkie Tirugeta	" "	Keiyt Reside	" "
10	Kidist Manyahilohal	" "	" "	" "
11	Degisew Woldie	Social Work	" Project	" "
12	Zerihun Shewaye	Social Work	" "	" "
13	Abraham Tibebu	12 grade	Mush Resid	" "
14	Almaz Hailu	12 grade	" "	" "
15	Tibebe Wouhib	Social Work	" Project	" "
16	Getachew Arage	Social Work	" "	" "
17	Shewarega Letyebel			" "
18	Aseggedech G/hiwot			" "

19	Befekadu Zewdie			" "
20	Aberra Kebede			" "
21	Mistir Birhanu			" "
22	Emagnu Amare	BA degree	Gudoberet Pr	Supervisors
23	Eshetu Tadesse	Diploma (Agr)	" "	"
24	Melaku Lisanework	MSc	Bakello Proj	"
25	Alemayehu Shiferaw	BA	Mush Project	"
26	Alemayehu Nigussei	Diploma (Agr)	" "	"
27	Getaneh Bialfew	MSc	Keyit Proj.	"
28	Hiwot Mekonnen	Diploma (Agr)	" "	"
29	Mekonnen Lakew	Diploma (San)	NS Hlth Dept	"
30	Fikru Lemmu	Diploma (Nur)	" " "	"

Annex F. Logistics Plan/ Schedule for Data Collection

DAY 21/07/97	Cluster Name (1st Household)	Team		Car #	Travel distance	
		Supervisor	Interview.		drive	walk
	Keb 01 (361)	Dr. Fikru	Shewarega Astatke T	1	--	
	Keb 02 (065)	Emagnu O	Tibebu W Tesfaye T	1	--	
	Keb 03 (243)	Dr. Solomon	Abraham T Aseggedech	1	--	
	Keb 04 (156)	Hailu B	Senite A	1	--	
	Keb 06 (104)	Dr. Yared	Getaneh B Kidist M	2	--	
	Keb 07 (418)	Melaku L	Eshetu T Eshetu B	2	--	
	Keb 08 (362)	Alemayehu Negussie	Tekliye A Getachew A	2	--	
	Keb 09 (006)	Befekadu Z	Ayalew Sh. Mistir B	2	--	

Faji (Mulugeta)	Tekalign W	Almaz M Degisew M	3	10Km	--
Weinabadera (Nigusse)	Mekonen L	Haile G/G. Anteneh S.	3	15Km	--
Atakilc (Tafesse)	Alemayehu Shiferaw	Zerihun Shewangiza	4		--
Dinguan gunagun (Tamene)	Fikru L	H/Mariam A Aberra K	4		--

Day II 22.07.97	Cluster Name	First Household	Team		Car #	Order	Travel Distance		Return
			Supervisor	Interviewers			Drive	Walk	
	Dube Ager		Befekadu Zewdie	Ayalew Sh Anteneh S.	1	1st	45'	2 hrs.	same day
	Andit Tid		Hiwot Wanyan	Abraham J Aseggedech	1	2nd	20'	55'	same day
	Chiraro Debir		Getaneh B	Tekalign W Astatkie T Almaz H	2	1st	20'	2 hrs.	same day
	Negarit Bahir		Melaku Lisanework	Tibebu W Zerihun Sh	2	2nd	30'	5 hrs.	next day
	Amer Ager	Fantaye W/Kidan	Alemayehu Negussie	Tekliye A Getacher A	2	3rd	30'	2 hrs.	same day
	Ganguna Tenkole		Hailu Bekele	Kidist M Tesfaye T	3	1st	20'	1 hr.	same day
	Lanja Gind		Emagnu Amare	Eshetu T Eshetu B	3	2nd	30'	2 hrs.	same day
	Kura Mariam		Mekonen Lakew	Degisew W Senite A Mister B	3	3rd	45'	--	same day

Arsi Amba		Fikru Lemu	Hailemariam Abere	q	1st	30'	z hrs.	same day
Muter		Alemayehu Shi feraw	Shewarega Haile G/G	4	2nd	1 hr	8 hrs	third day



Day III 23.07.97		Cluster Name	First Household	Team		Car #	Order	Travel Distance		Rtrn.
				Supervisor	Interviewer			Drive	Walk	
	Meskeleyes	Ato Fikre Tekle	Alemayehu Nigusse	Getacher A Ayalew Sh	1	1st	35'	4 hrs	Next day	
	Woulgim	Ato Abebe Adafre	Fikru Lemu	Asegedech Senite A	1	2nd	1 hr	4 hrs	Next day	
	Chachat	Balkew G/Meskel	Hailu Bekele	Tesfaye T Abere K	1	3rd	25'	2 hrs	Next day	
	Nasina Kumamba	Teklewold Bekele	Getaneh Bialfew	Abraham T Eshetu T	2	1st	45'	5 hrs	Third day	
	Tebez	H/Silasse Yediru	Emagnu Amare	Anteneh S Eshetu B	2	2nd	20'	6 hrs	Third day	
	Wabina Ketanit	W/O Tafesech Desta	Mekonen Lakew	Hiwot M Almaz H Kidist M Mistir B	3	--	25'	15'	Same day	
	Kasma	Birhane Banjaw	Tekalign Wondimu	H/Mariam A Astatkie T	--	--	--	9 hrs	Third day	
	Chelema Washa	Teferra T/Wold	Befekadu Zewde	Degisew W Tekliye A	--	--	--	7 hrs	Third day	

Fuel Consumption Monitoring Chart
CSP-KPC Survey
Debre-Birhan

Car type (Plate #) Fuel type	Date of Filling	Fuel in Litres (+oil)	Cost of Fuel and oil (Birr)	Km reading (current)	Distance travelled (Km)	REMARK (Km/Lt)
Nissan Patrol [59373] (Regular)	19/07/97	38	100.00	095480	--	5.4
	19/07/97	48	126.20	095610	130	
	20/07/97	38	100.00	095800	190	
	21/07/97	38	100.00	095932	322	
	24/07/97	30	79.00	096035	103	
	26/07/97	10	79.00	096131 096483	318 130	
Toyota Land Cruiser Long base [51549] (Regular)	19/07/97	25	66.00	084948	--	2.8
	20/07/97	89	234.00	085098	150	
	23/07/97	71	200.00	085238	140	
	26/07/97	38	100.00	085441	203	
				085571	130	
Toyota Land Cruiser [00298] (Diesel)	19/07/97	10	58.5	265387	--	d, d
	20/07/97	71 (+1kg)	136.5 (+14)	265517	130	
	23/07/97	63	122.00	265892	ETS	
	26/07/97	32.5	60.00	266215 266345	223 130	
Toyota Land Cruiser [58730] (Regular)	14/07/97	60	156.60	179598	--	J, S
	17/07/97	80	210.40	179887	284	
	22/07/97	76 +.5kg	200 (+7.15)	180205	323	
	26/07/97	35.59	92.89	180338 180468	133 130	

Annex I.

Budget: Summary of the CSP-KPC Survey, 14-26 July, 1997

Trip I (to Debre Birhan, for preparatory work)

Hotel accommodation and food = 305.05 Birr

Trip II

Hotel accommodation and food = 537.05 Birr

Other expenses = 45.00 Birr

Final preparation:

1. Stationary = 798.30 Birr

2. Photocopy Services = 381.85 Birr

3. Transport:

Vehicle rent; 1 car for three weeks at 300/day = 6,300.00 Birr

3 cars for eight days each, 300/d = 7,200.00 Birr

Fuel and Oil , . . . = 2,518.65 Birr

4. Per diem for Interviewers/Supervisors/Core-team = 12,620.00 Birr

5. CCF Staff Accommodation Expenses:

Food and drinks = 1,451.55 Birr

Room rent = 1,160.00 Birr

6. Computer Rent: 30 Birr X 30 days = 900.00 Birr

7. Data Analyst's Consultancy Fee, 5 days at 500/d = 2,500.00 Birr

8. Stationary, photo-copying, typing, and

duplication of questionnaire = 490.00 Birr

8. Consumables (coffee, tea, etc.) = 591.00 Birr

Total Cost of SCP-KPC Survey = 37,798.45 Birr

Annex J.

Dissenimation Plan

Debriefing;

USAID, BASICS, MOH, UNICEF, SCF/UK, Africare, CRDA and other PVOs will be communicated about the results of the KPC-Survey on two or three different debriefing sessions.

North Shewa Zonal Health Department and Woreda Health Office will have a separate occasion for debriefing in Debre-Birhan.

Local Communities will be communicated about the survey results over a one year period through health education sessions on various occasions.

Lessons Learned

The fact that the survey has been conducted during the rainy season seems to have worsened the inaccessibility of some of the study area due to muddy, slippery and difficult roads. The logistics could have been much easier if it were carried out during the dry season.

The use of local interviewers/supervisors who are familiar with the area could be considered as strengths of the study. We believe this has minimized the burden of logistic problems and the additional expenses of hiring guides, which may not be available easily.

Throughout the training process, as well as, during the data collection, a good team spirit was created among the core team, interviewers/supervisors, drivers and others. Likewise, at most collaboration with the local health departments and other bodies has been maintained.

Attempts were also made to spare ample time to familiarize the interviewers/supervisors with the questionnaire and allow adequate exposure to the practical exercise through role plays and pre-testing exercise.

Country _____ Peasant Association / Urban Dwellers' Assoc. _____

house Number _____ Serial Number _____

A questionnaire prepared to assess the **knowledge**, practice and coverage of **services** related to **child survival activities** of charity organization.

This questionnaire is prepared for mothers who have children younger than two years (24 months) at present.

A consent request format for the data collection

The Christian Children's Fund in collaboration with the North **Shewa Zonal Health** Department wants to gather basic information that help for the child survival activity planned. For this, your at most cooperation h required. **We** hope you **will** cooperate.

Thank you in advance for your cooperation

Name and age of the mother

Name _____ Age(in years) _____

State Relation to the child (if not a mother) _____

2. Name and age of child (for youngest child below age **two**)

Name _____ Age (in months) _____

Birth date _____ / _____ / _____
Date Month Year

3. What is your **ethnicity**?

1. Amhara _____ I: I
2. Other (**specify**) _____ [3

4. What is your educational status?

1. **unable** to read and **write**-----[]
2. able to **read** and **write**-----[]
- 3 **elementary** school education-----[]
4. **high school** education-----[]

5. Do you have any income **generating** work?

(more than one answer is possible, record all answers, don't read the choices)

1. I don't work-----[1
2. Hand craft, clay work, weaving. etc..-----[]
3. Selling crops and daily **products**-----[]

- 4. House made / daily labour ----- []
- 5. Trading in shops treat / small vendors-----[]
- 6. **Employed by salary**-----[]
- 7. Selling fire-wood ----- []
- 8. Brewing and selling "Tela, "Arakie"----- []

6. At what time are you usually available at home

- 1. During the **morning**----- []
- 2. During the **afternoon**----- []
- 3. The whole day----- []
- 4. I am not available at **none** during the whole day---[]

7. Who **will** take care of (name of child) when you are out of home?

(more than one answer is possible, record all responses, don't read the choices)

- 1. The mother **will** take the child with her _____
- 2. Her husband will take care of him _____
- 3. His older sisters or brothers will take care of him _____
- 4. His relatives **will** take care of him _____
- 5. Neighbors or friends will take care of him _____
- 6. A house maid will take care of him _____
- 7. Other **/specify/**- _____

8. Do your breast-feed (give breast milk) to (name of child) currently?

- 1. Yes-----[] **If yes, to 10.**
- 2. I don't breast-feed----- []

9. Have you ever breastfed (name of child)?

- 1. **Yes**----- []
- 2. No----- []

10. **After** you gave birth to (name of child) when did you first breastfeed / give **breast** milk/?

- 1. within one hour after delivery-----[]
- 2. within half a **day** after delivery-----[]
- 3. After a day after **delivery**-----[]
- 4. I don't remember----- []
- 5. Other (specify)----- []

11. A. Do you **give** water or herbal tea (Tosign-tea) to (**name** of child)?

- 1. Yes----- []
- 2. No----- []
- 3. I don't know ----- []

B. Do you give him cow's **milk** or **milk** powder?

- 1. **Yes** ----- []
- 2. No----- []
- 3. I don't know----- []

- C. Do you give him porrage, gruel, or food made of somolino or "Fumo-flour"?
1. Yes----- []
 2. No----- []
 3. I don't know----- []
- D. Fruits?
1. **Yes**----- []
 2. No----- []
 3. **I don't know**-----[]
- E. Carrots, papaya, food made of "FAFA" or "Dube-flour"?
1. Yes----- []
 2. No----- []
 3. **I don't know**-----[]
- F. Dark green vegetables such as tale or "Kosta"?
1. **Yes**----- []
 2. No----- []
 3. **I don't know**-----[]
- G. Meat or fish?
1. Yes----- []
 2. No----- []
 3. **I don't know**-----[]
- H. Lentils, peas, food made of "FAFA" or "Doube-flour"?
1. Yes----- []
 2. **No**----- []
 3. **I don't know**-----[]
- I. Egg, yogurt, cheese?
1. Yes----- []
 2. No----- []
 3. **I don't know**-----[]
- J. Do you add dark green vegetables in the food?
1. Yes----- []
 2. No----- []
 3. **I don't know**----- []
- K. Honey or sugar'?
1. Yes----- []
 2. No----- []
 3. **I don't know**----- []
- L. Oil or Butter?
1. Yes----- []
 2. No----- []
 3. **I don't know** ----- []
- M. Iodized salt ?
1. Yes----- []
 2. No----- []
 3. I don't know----- []

12. At what age should additional food be added to a child in addition to breast milk?

1. Before the fourth month of age-----[]
2. Between the fourth & sixth months of age-----[]
3. Around the sixth month of age--- _____ []
4. After [the sixth month of age----- _____ []
5. I don't know----- []

13. What should these additional foods be?

(more than one answer possible, record all responses, don't read choices)

1. I don't know----- []
2. Foods with oil or fat----- []
3. Kale, carrots, "FAFA" "Kosta", "Dube-flour"-----+ []
4. Fried barley "Injera with wet" (Berbere spice)-----[]
5. Other (specify)----- []

14. Which vitamin helps to prevent night-blindness (Dafint)?

1. Vitamin A----- []
2. I don't know or other----- []

15. Which foods have to be fed to prevent night blindness (dafit)?

(more than one answer possible, record all responses, don't read choices)

1. I don't know----- []
2. Green vegetables (tale, "Kosta")-----[]
3. Carrots----- []
4. Fruits (Mango)----- []
5. Liver----- []
6. Breast milk----- []
7. Egg Yolk----- []
8. Other (specify)----- []

16. Was (name of child) sick of diarrhea during the last 2 weeks'?

/ Note diarrhea means passing unusually loose stools

1. Yes----- []
2. No----- []
3. I don't know----- []

17. Did you breastfeed (name of child) when he had diarrhea'?

/ Read choices 1-4 to the mother, don't read the 5th'

1. Breast fed more than usual----- []
2. Breast fed as usual----- []
3. Breast fed less than usual----- []
4. Stopped / discontinued breast feeding----- []
5. The child doesn't breast feed even before----- []

18. When (name of child) had diarrhea, did you give additional fluid to (name of child) in addition to **breast** milk?

(Read choices 1 - 4 to the mother, don't read the 5th)

1. Did you give more than usual?-----[1
2. **Did you give as usual?**----- []
3. Did you **give** less than usual?-----[1
4. Did you discontinue or stop completely?----- []
5. The child is only breast fed even before? ----- []

19. When (name of child) had **diarrhea**, did you continue to give various foods?
(Read choices 1-4 to the mother, don't read the 5th)

1. Did you give more food than usual'?-----[]
2. **Did you give as much food as usual?**----- []
3. Did you give less food than usual'?-----]
4. Did you discontinue / stop giving food?-----t]
5. The child is only **breast** fed even before?----- []

20. **When** (name of child) had **diarrhea**, how did you **try** to help him at home?

1. **No help has been done** ----- []
2. ORS (Dehydrating English-salt)----- []
3. **Mixture of salt & sugar** ----- []
4. **Grain based diarrhea drug** ----- []
5. Home fluids appropriate for diarrhea, such as soup, tea,
" Abish", etc. given-----[1
6. Antidiarrheal drugs (drugs that stop diarrhea)-----[]
7. Given antibiotics----- []
8. **Other (specify)** ----- []

21. Did you try to get medical help or **advise** when (name of child) had diarrhea?

1. Yes-----[1
2. No-----[] If no, pass to 23

22. When (name of child) had diarrhea, where did you **try** to get medical help or advise?

(more than one **answer** possible, record all responses, don't read choices)

1. From hospital----- []
2. **From a clinic**----- []
3. From a private clinic /private physician---v----- []
4. From pharmacy /drug store/ ----- []
5. From health post ----- []
6. From a community health worker ----- []
7. From traditional health worker-----[]
8. From traditional birth attendant -----[1
9. **From friends & relatives** ----- []
10. From other place (specify) ----- []

23. If (name of child) develops diarrhea, what signs make you seek medical help or advise? (more than one answer possible, record all responses)

1. I don't know ----- []
2. vomiting ----- []
3. Fever ----- []
4. Sunken eyes, sunken fontanel, marked thirst, shrinking body----- []
5. **Diarrhea** if more than **two** weeks ----- []
6. Stool mixes with blood ----- []
7. Loss of appetite ----- []
8. Weakness or tiredness ----- []
9. Other (**specify**) ----- []

24. If (name if child) should **develop diarrhea** what measures should be taken (more than on response possible, record all)

1. I don't know ----- []
2. Give fluids rapidly ----- []
3. Give fluids more than usual ----- []
4. Give small & frequent food ----- []
5. Give ORS (Rehydrating English salt) ----- []
6. Other (specify) ----- []

25. When the child is recovering from diarrhea, what are the important things you have to do? (mote than one answer possible, record all responses)

1. I don't know ----- []
2. Feed the child small & frequently ----- []
3. Give food more than usual ----- []
4. Give foods rich in calorie ----- []
5. Other (**specify**) ----- []

26. Did the child have **difficulty** of breathing or unusual cough in the **past** two weeks?

1. Yes ----- []
2. No ----- []

27. Has (name of child) ever received any **immunization**?

1. Yes----- []
2. No----- []
3. **Doesn't know**----- []

28. At what age should the child received measles **vaccination**?

1. **Specify** in months ----- []
2. Doesn't know----- []

29. Can you tell me why pregnant mothers need to be vaccinated with tetanus toxoid vaccine?

1. To protect mother and newborn against tetanus-----[]
2. To protect only the mother against tetanus-----[]
3. To protect only the newborn against tetanus-----[]
4. Doesn't know or other----- []

30. How many times should the mother receive tetanus toxoid injection during pregnancy in order to protect the newborn infant against tetanus?

1. One----- []
2. Two----- []
3. More than two-----[]
4. None-----[]
5. Doesn't know----- []

31. Does (name of child) have an immunization card?

1. Yes-----[] (must see card and fill the next box)
2. **Lost it**-----[] **go to 33**
3. Never have one -----[] **go to 33**

32. Look at the vaccination card and record the dates of all the immunization ✓
in the space below.

		(dd/	/mm/	/yy/)
BCG		____	/	____
OPV(polio)	1st	____	/	____
	2nd	____	/	____
	3rd	____	/	____
DPT	1st	____	I	____
	2nd	____	/	____
	3rd	____	I	____
Measles		____	I	____

33. Did the child ever **received** vitamin A capsules? (show the capsule)

1. Yes----- []
2. No----- []
3. **Doesn't know**-----[]

31. Did you receive vitamin A capsule after **delivery** of (name of child)?

1. Yes----- []
2. No----- []
3. **Doesn't know**-----[]

35. Do you have mothers tetanus immunization card?
1. Yes-----[] (must see card)
 2. Yes it's with the child's card-----[]
 3. Lost it----- []
 4. No----- []

36. Look at the mothers tetanus immunization card or child's card and record the number of tetanus tosoid vaccination in the space below:
1. One----- []
 2. Two or more----- []
 3. None----- []

37. Have you ever attended antenatal care visits?
1. Yes----- []
 2. No----- []

38. When should a pregnant woman first see a health professional (physician, nurse, trained traditional birth attendant).
1. In the **first** three months, 1 - 3 months-----[]
 2. At the middle of **pregnancy**, 4 - 6 months-----[]
 3. In the last three months, 7 - 9 months-----[]
 4. No need to see health worker-----[]
 5. Doesn't know-----C 1

39. What type of foods should a pregnant mother eat to prevent pregnancy anemia?
1. Doesn't know-----[1]
 2. Egg, **fish**, meat----- []
 3. Green leaf vegetables(cabbage)-----[]
 4. **Other (specify)**-----[]

40. When you were pregnant with (name of child) was the amount of food you ate (Read the choices)
1. **More** than usual----- []
 2. Same as usual----- []
 3. Less than usual----- []
 4. Doesn't **know**----- []

41. At the **delivery** of (name of child) who tied and cut the cord?
1. **Your self**----- []
 2. Family member----- []
 3. Traditional birth attendant----- []
 4. Health professional (physician, nurse, trained traditional birth attendant---[]
 5. Other (specify)----- []
 6. Doesn't know----- []

Interview date _____ / _____ / _____
(dd) (mm) (vv)

Interviewer name _____

supervisor name _____

Kebele _____

Peasant village _____