IMPROVED CHILD SURVIVAL IN NSANJE DISTRICT, MALAWI THROUGH COMMUNITY BASED INTERVENTIONS AND STRENGTHENING OF THE HEALTH DELIVERY INFRASTRUCTURE

DETAILED IMPLEMENTATION PLAN
FINAL DOCUMENT POST DIP REVIEW

Presented to:
UNITED STATES AGENCY FOR
INTERNATIONAL DEVELOPMENT
CHILD SURVIVAL HEALTH GRANT PROGRAM

FY 2002 CS XVIII
Cooperative Agreement No.:
HFP-A-00-02-00027-00
Begin: 09/30/2002 - End: 09/29/2006

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June 30, 2003

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante-Natal Care
ARI	Acute Respiratory Infection
BCC	Behavior Change Communication
BCI	Behavior Change Intervention
CHAM	Christian Hospitals Association Malawi
CHAPS	Community Health Partnerships Program
CO	Clinical Officer
CSMC	Child Survival Management Committee
DA	District Assembly
DHI	District Health Inspector
DHO	District Health Officer
DRF	Drug Revolving Fund
DTC	District Technical Committee
EBF	Exclusive Breastfeeding
EHA	Environmental Health Officer
EN	Enrolled Nurse
EPI+	Expanded Program for Immunization Plus
GMV	Growth Monitoring Volunteer
H/C IMCI	Household/Community Integrated Management of Childhood Illness
HA	Health Assistant
HBC	Home Based Care
HC	Health Center
HFA	Health Facility Assessment
HH/C IMCI	Household and Community Integrated Management of Childhood Illness
HIV	Human Immunodeficiency Virus
HSA	Health Surveillance Assistant
IEC	Information Education and Communication
IPT	Intermittent Presumptive Treatment
ITN	Insecticide Treated Net
KPC	Knowledge, Practice, Coverage
LSFEH	Lions SightFirst Eye Hospital
MA	Medical Assistant
MOAI	Ministry of Agriculture and Irrigation
MOAI	Ministry of Agriculture and Irrigation
MOEC	Ministry of Education and Culture
MOGYCS	Ministry of Gender, Youth and Community Service
MOHP	Ministry of Health and Population
NDH	Nsanje District Hospital
NID	National Immunization Day
NMTC	National Malaria Technical Committee
NRU	Nutrition Rehabilitation Unit
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PDI	Positive Deviant Inquiry
PI	Performance/Process Improvement
PMTCT	Prevention of Mother-to-Child Transmission (of HIV/AIDS)
PRA	Participatory Rural Appraisal
QA	Quality Assurance
QECH	Queen Elizabeth Central Hospital
SP	Sulphadoxine-pyrimethamine
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TBA	Traditional Birth Attendant
TfT	Training for Transformation
TH	Traditional Healer
TTV	Tetanus Toxoid Vaccine
U-5	Under Five
VCT	Voluntary Testing and Counseling
VHC	Village Health Committee

TABLE OF CONTENTS

A. EXECUTIVE SUMMARY

The International Eye Foundation (IEF), in collaboration with the Child Survival Management Committee (CSMC) of Nsanje District, Malawi, is submitting this Detailed Implementation Plan to the U.S. Agency for International Development DCHA/PVC's Child Survival Grants Program. The proposal was submitted in FY 2002 and funded under Cooperative Agreement No.: HFP-A-00-02-00027-00. The DIP describes a four-year child survival project entitled *"Improved Child Survival in Nsanje District, Malawi, Through Community-Based Interventions and Strengthening of the Health Delivery Infrastructure."*

The Republic of Malawi remains one of the poorest countries in sub-Saharan Africa. Nsanje District, in the southern extreme of the Lower Shire Valley, is one of the poorest districts in Malawi, and has many of the country's lowest health indicators. Infant and under-five mortality rates in Nsanje are the highest in the nation, while under-five malnutrition is second highest. Unacceptably high and preventable mortality rates from pneumonia, malaria, and diarrhea impede child survival. HIV/AIDS results in thousands of under-five and adult deaths each year. Maternal mortality has dramatically increased in Malawi over the past ten years, directly impacting Nsanje women of childbearing age and, as a result, child health status.

The majority of Nsanje's population are subsistence farmers living below the poverty line. The 1998 national census shows Nsanje District's total population at 194,481. Of these, approximately 33,000 (17%) are children under five years of age, and 45,000 (23%) are women of childbearing age (15-49 years). Literacy rates are extremely low, especially among women. This is devastating because a high association exists between education levels, healthy behaviors, and health-seeking actions in Malawi.[1] The need for external assistance is great, but Nsanje District receives very limited support. For this reason, IEF responded to the District's request in early 2000 to help develop this project – currently the only *major* project in Nsanje striving to improve service delivery, increase community participation, and implement HH/C IMCI to reduce morbidity and mortality rates.

The Ministry of Health and Population (MOHP) infrastructure consists of the Nsanje District Hospital, one mission hospital, 11 health centers and eight health posts providing basic services. The District's management is plagued by an inefficient use of resources, a lack of supervision and training, and logistical and transport bottlenecks. Coupled with very little external assistance, this makes Nsanje one of the neediest districts in Malawi.

The project's Strategic Objective is:
Families and caretakers with young children increase the practice of healthy behaviors and seek medical care from quality sources.

To achieve this, the project will address four main Intermediate Results:

IR1. <u>District Organizational Effectiveness and Management Support for Quality Child Care Strengthened</u>. This will be achieved by strengthening planning, training, supervision, and

[1] 2000 Malawi Demographic Health Survey.

evaluation skills; increasing inter-sectoral coordination, and introducing new financial sustainability strategies.

IR2. Health Provider Skills in Prevention and Management of Childhood Illness Improved. This will be achieved by increasing inter-sectoral understanding of Household/Community IMCI (HH/C IMCI)[2], increasing the skills of health facility providers at all levels, and increasing the skills of community volunteers.

IR3. Availability and Accessibility to Quality Preventative and Curative Health Services Increased. This will be achieved by strengthening under five and ante-natal clinic services; increasing the availability to malaria ITN/ITP services, evaluating and improving the Drug Revolving Fund strategy; improving nutrition by adopting the Hearth strategy, and expanding HIV/AIDS prevention, testing and counseling services.

IR4. Community Participation, Ownership, and Demand for Health Services Increased. This will be achieved by improving community mobilization and support to Health Surveillance Assistants (HSA) and Community Health Volunteers (CHV) in prevention and promotion activities; increasing access to appropriate and quality care and information by trained CHVs, and improving district communication skills using the BEHAVE framework.

Child survival interventions will focus on the following:

- Improve Pneumonia case management (HH/C IMCI, training volunteers, and BCC). **20%**
- Improve Malaria case management and prevention (HH/C IMCI, training volunteers, bed net promotion, drug revolving funds, training shopkeepers, and BCC). **20%**
- Improve Diarrhea case management and prevention (HH/C IMCI, training volunteers, drug revolving funds, community-based promotion, and BCC). **15%**
- Improve Nutrition (HH/C IMCI, Hearth Positive Deviance Model, exclusive breast feeding promotion, vitamin A/iron campaigns, and BCC). **20%**
- Strengthen EPI (HH/C IMCI, training health workers, and immunization/vitamin A campaigns, and BCC). **5%**
- Reduce MTCT (Establish VCT services, train health workers, promote exclusive breastfeeding, introduce "EBF role models," and BCC). **20%**

Facility and Community Based IMCI will be used as a strategy, focusing on all three elements of HH/C IMCI at the health system, health facility and household/community levels. The project will create a synergy between communities and facilities and strengthened CSMC capacities. Management systems and supervisory structures will be strengthened to improve capacities at the community, health facility, and district health system levels. The project will stimulate coordination between different District departments, as well as coordination between villages and health facilities. Furthermore, a team approach will be used for decision-making by the Child Survival Management Committee (CSMC) comprised of IEF/CSMC staff. Innovative sustainability strategies generating revenue for the District will also be introduced to lay the

[2] Henceforth, IMCI is referred to as Household and Community IMCI (HH/C IMCI) to be consistent with the new standards and definitions.

foundation for the District to achieve greater autonomy and gain greater control over their resources.

The project's main partners are the District Health Management Team, the 21 MOHP health centers, and the District's 450 villages. This project has been discussed with the SO8 Team Leader, Mexon Nyirongo, of the USAID Mission in Lilongwe. The Mission supports this project as it combines health system, health facility, and community strengthening with increasing local CSMC capacity.

The starting date for the project was October 1st of 2002, with an expected completion date of September 29th 2006. This proposal falls under the "New Program" award category, with a total budget amount of US$2,225,838 of which, $1,112,811 is federal, and $1,113,027 is IEF match.

This document's main authors from Malawi are Geoffrey Ezepue, MD, IEF Country Director, and Mr. K. J. Chikonde, District Health Officer, Nsanje Ministry of Health and Population (MOHP). From IEF/HQ in Maryland, Gwen O'Donnell, MA, MHS, Child Survival/Vitamin A Coordinator, and John M. Barrows, MPH, Director of Programs.

B. CSHGP DATA FORM

Child Survival Grants Program Project Summary

DIP Submission: May-02-2003
IEF Malawi

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Project Information:

Project Description:	The International Eye Foundation (IEF), in collaboration with the District Health Management Team (DHMT) of Nsanje District, Malawi, is implementing a four-year child survival project entitled "Improved Child Survival in Nsanje District, Malawi, Through Community-Based Interventions and Strengthening of the Health Delivery Infrastructure." The project will create a synergy between community and facility-based HH/C IMCI and strengthened DHMT capacities. Management systems and supervisory structures will be strengthened to improve capacities at the community, health facility, and health system levels. Health interventions include immunization, vitamin A, nutrition, diarrhea, pneumonia, malaria, and HIV/AIDS. The project will stimulate coordination between different district departments, as well as coordination between villages and health facilities. Furthermore, a team approach will be used for IEF/DHMT decision-making. Innovative sustainability strategies generating revenue for the district will also be introduced. These strategies will lay the foundation for the district to become financially self-sufficient.
Partners:	The main partners in the project are the District Child Survival Management Committee, 2 hospitals (1 MOHP and 1 CHAM), 11 MOHP health centers and 8 MOHP health posts. At the community level, the project will work with the existing network of 180 Health Surveillance Assistants, and the existing networks of Village Health Committees, community volunteers, local businesses, and traditional healers in Nsanje District's 450 villages. IEF will

	also partner with other Malawi-based NGOs such as Save the Children, US/UK (for Hearth Model technical assistance), Population Services International (for the provision of bed nets), and Malawi AIDS Counseling and Research Organization- MACRO- (for VCT/PMTCT technical assistance). The project will also facilitate increased coordination with the Safe Motherhood Program.
Project Location:	The project is located in Nsanje District, in the southern extreme of the Lower Shire Valley. The district is one of the poorest districts in the nation, and has many of the country's lowest health indicators. The 1998 national census shows Nsanje District's total population at 194,481. Of these, approximately 33,000 (17%) are children under five years of age, and 45,000 (23%) are women of childbearing age (15-49 years). The population in the district is dispersed in 450 villages under nine traditional authorities.

Grant Funding Information:

USAID Funding:(US $)	$1,112,811	**PVO match:(US $)**	$1,113,027

Target Beneficiaries:

Type	Number
0-59 month old children:	33,000
Women 15-49:	45,000

Beneficiary Residence:

Urban/Peri-Urban %	Rural %
5%	95%

General Strategies Planned:

Strengthen Decentralized Health System

M&E Assessment Strategies:

KPC Survey
Health Facility Assessment
Organizational Capacity Assessment with Local Partners
Organizational Capacity Assessment for your own PVO
Participatory Rapid Appraisal
Lot Quality Assurance Sampling
Community-based Monitoring Techniques
Participatory Evaluation Techniques (for mid-term or final evaluation)

Behavior Change & Communication (BCC) Strategies:

Interpersonal Communication
Peer Communication
Support Groups

Capacity Building Targets Planned:

PVO	Non-Govt Partners	Other Private Sector	Govt	Community
US HQ (General) Field Office HQ CS Project Team	(None Selected)	Pharmacists Traditional Healers Private Providers	Dist. Health System Health Facility Staff	Health CBOs CHWs

Interventions:

Immunizations 5 **%**
** IMCI Integration
** CHW Training
** HF Training
*** Polio
*** Classic 6 Vaccines
*** Vitamin A
*** Surveillance
*** Cold Chain Strengthening
*** Injection Safety
Nutrition 10 **%**
** IMCI Integration
** CHW Training
** HF Training
*** Comp. Feed. from 6 mos.
*** Hearth
*** Cont. BF up to 24 mos.
*** Growth Monitoring
Vitamin A 2.5 **%**
** IMCI Integration
** CHW Training
** HF Training
*** Supplementation
*** Post Partum
*** Integrated with EPI
Micronutrients 2.5 **%**
** CHW Training
** HF Training
*** Iron Folate in Pregnancy
Acute Respiratory Infection 20 **%**
** IMCI Integration
** CHW Training

** HF Training
*** Pneum. Case Mngmnt.
*** Case Mngmnt. Counseling
*** Access to Providers Antibiotics
*** Recognition of ARI Danger Signs
Control of Diarrheal Diseases 15 **%**
** IMCI Integration
** CHW Training
** HF Training
*** Water/Sanitation
*** Hand Washing
*** ORS/Home Fluids
*** Feeding/Breastfeeding
*** Care Seeking
*** Case Mngmnt./Counseling
Malaria 20 **%**
** IMCI Integration
** CHW Training
** HF Training
*** Training in Malaria CM
*** Adequate Supply of Malarial Drug
*** Access to providers and drugs
*** Antenatal Prevention Treatment
*** ITN (Bednets)
*** Care Seeking, Recog., Compliance
Breastfeeding 5 **%**
** IMCI Integration
** CHW Training
** HF Training
*** Promote Excl. BF to 6 Months
*** Support baby friendly hospital
HIV/AIDS 20 **%**
** CHW Training
** HF Training
*** Treatment of STIs
*** Behavior Change Strategy
*** Access/Use of Condoms
*** STI Treat. with Antenat. Visit

Indicator	Numerator	Denominator	Estimated Percentage	Confidence line
Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)	118	299	39.5	0.0
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	0	0	0.0	0.0
Percentage of children age 0-23 months whose births were attended by skilled health personnel	201	299	67.2	5.5
Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of their youngest child	206	299	68.9	5.5
Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours	42	77	54.5	0.0
Percentage of infants age 6-9 months receiving breastmilk and complementary foods	31	42	73.8	14.0
Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	94	150	62.7	0.0
Percentage of children age 12-23 months who received a measles vaccine	105	150	70.0	7.5
Percentage of children age 0-23 months who slept under an insecticide-treated bednet the previous night (in malaria-risk areas only)	51	299	17.1	0.0
Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment	64	299	21.4	5.0
Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks	52	139	37.4	0.0
Percentage of mothers of children age 0-23 months who cite at least two known ways of reducing the risk of HIV infection	150	260	57.7	6.5
Percentage of mothers of children age 0-23 months who wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated	8	299	2.7	2.0

C. DESCRIPTION OF THE DIP PREPARATION PROCESS

The Detailed Implementation Plan process (DIP) began in November of 2002 with the development of the Knowledge, Practice, and Coverage (KPC) survey, the KPC Survey Orientation Workshop, and the implementation of the KPC survey. Analysis of the survey and writing of the report took place during subsequent months.

In February of 2003, the Health Facility Assessment (HFA) was developed, field tested, and supervisors and enumerators participated in an Orientation Workshop. IEF and Nsanje District MOHP staff then carried out the HFA. Analysis of the assessment took place over the next several months. A small community assessment was also carried out. Ten villages were visited by an IEF/CSMC team and the VHCs, HSAs, and GMVs in each village were interviewed. Questions focused on perceived roles and responsibilities, training history, relationship with health services, supervision, knowledge of micronutrients (vitamin A and iron), and performance constraints.

Since the onset of the project, IEF has been working to locate office space in the Nsanje Boma (i.e. central administrative/governing site of the district and location of the Nsanje District Hospital - NDH). The NDH did not have the capacity to provide IEF with office space. Office space close to the hospital that once housed the District Assembly became available and IEF established its field office there. In addition to setting up a field office, equipment was procured for the project, most notably computers for the Blantyre and Nsanje offices.

Staff recruitment has also been completed. All project staff have been identified and hired, namely the Maternal and Child Health Coordinator, the Monitoring & Evaluation Coordinator, the HH/C IMCI Coordinator, the HIV/AIDS Coordinator, the Project Manager, and the Project Administrator)

It took approximately three months to complete the DIP, including research, meeting with partners, and the actual writing of the text. Aside from the MOHP, the principal partners of the project are Population Services International (PSI), Malawi AIDS Counseling and Research Organization (MACRO), and Save the Children US/UK. Meetings and discussions have taken place with each in the context of Nsanje project planning.

Several meetings with PSI took place to determine the means of collaboration. PSI recently began distributing nets in Nsanje District. They have trained the majority of health facility staff on the difference between the three nets offered, net distribution, re-treatment procedures & schedules. PSI has agreed to continue net distribution and refresher trainings at the health facility level, while the project will establish a link between health centers and communities (through HSA, GMV, and VHC strengthening) to facilitate community distribution. PSI will also supply WaterGuard bottles (filled with a chlorine-based solution) for water purification to health centers, to be available for purchase by mothers at a subsidized price.

Meetings with MACRO have taken place to discuss collaboration for the provision of test kits. It appears that MACRO's supplier of test kits, the Center for Disease Control (CDC) in the USA has put a hold on supplying kits for wide distribution to PVOs. MACRO is in the process of

resolving this issue. Due to a high demand and a lack of available staff, MACRO is also in the process of training more trainers who can offer integrated HIV/AIDS prevention, VCT & STI management training. MACRO is enthusiastic about partnering with the CSMC in Nsanje District.

Discussions with Save the Children US/UK have also occurred regarding technical assistance from Save the Children on the PD/Hearth Model. Nsanje Child Surival Project members, namely IEF's Maternal and Child Health Program Manager and her counterpart in the Ministry, will participate in an exchange visit to Save the Children's Mangochi Hearth Project sites. Save will also provide technical assistance to the project in Nsanje, however the details have yet to be specified.

During January and February of 2003, IEF HQ in Maryland gathered preliminary information for the DIP was gathered at IEF Headquarters in Maryland. A Memo of Understanding was drafted and sent to the field for comments. (It was completed and signed soon after the DIP Orientation Workshop - refer to Annex 6). A schedule and program for the DIP Orientation Workshop was also developed . The Nsanje District Health Management Team provided IEF with suggestions and materials were finalized.

The four-day DIP Orientation Workshop took place in early April. At the end of the four days, the following learning objectives had been met:

1. Participants were aware of the requirements of the Child Survival and Health Grants Program (CSHGP) and the Nsanje Child Survival (CS) Project.
   - CSHGP History, Goals, Strategic Objectives and Requirements
   - IEF/CSMC CS Project Purpose
   - Proposed Project Design – goal, intermediate results, outcomes, activities, and major milestones
   - Detailed Implementation Plan and Guidelines

2. Participants understood CSMC roles and responsibilities, and capacity building strengths and weaknesses
   - Reviewed roles and responsibilities
   - Drafted 1 page Child Survival Management Committee (CSMC) charter
   - Drafted outline for common project vision statement

3. Participants understood district health status and service delivery capacity
   - Reviewed KPC data
   - Reviewed HFA data
   - Reviewed MOHP Annual Plan

4. Participants demonstrated planning skills in Log Frame/Results development
   - Introduced planning approaches (problem analysis, data, solution, objectives, indicators, timelines)
   - Explained Log Frame and Results planning

5. Participants completed planning process for two to three interventions

- Introduced process for group/team design
- Participants established schedule and teams to complete the DIP

The common vision statement drafted by workshop participants states:

> *The Nsanje District Child Survival Management Committee (CSMC) aims at improving the health status of mothers and children with community participation through the provision of an integrated strategy to successfully plan and implement an equitable, accessible, effective, efficient and sustainable child survival project by 2006.*

The group officially named itself the *Nsanje District Child Survival Management Committee* and wrote a charter. The purpose of the group was defined as follows:

> *The purpose of the CSMC, as decided by its members, is to promote a spirit of teamwork among project partners such that child survival is encouraged and enhanced throughout Nsanje District. The role of the group is to verify and monitor project strategies and processes to ensure project sustainability. The CSMC will stimulate the exchange of information between partners and stakeholders to secure project ownership, as well as to avoid the duplication of activities. Formation of the CSMC will enable project partners to share resources and consolidate ideas in project planning and implementation. The CSMC will strengthen the relationship between the MOHP and IEF, thus promoting a joint common vision to achieve project goals.*

Responsibilities were defined as including, but not restricted to:

- Project planning, monitoring and evaluating
- Project supervision
- Providing technical support to the project
- Reviewing technical content of the project
- Monitoring financial issues

Official CSMC members are recognized as:

- IEF and MOHP Program Coordinators:
  a. IEF: Project Manager, Project Administrator, MCH, HH/C IMCI, HIV/AIDS, Program Managers
  b. MOHP: Malaria, HIV/AIDS, MCH, HH/C IMCI, Reproductive Health Program Managers
- Core CSMC members
- IEF Country Director and CS Project Manager
- Director of Planning from the District Assembly
- CHAM
- Other project partners as warranted on a quarterly basis

A spirit of cooperation, teamwork and excitement permeated all activities undertaken to prepare the DIP. This fact made the process a very satisfactory experience for all those involved in writing the DIP.

List of Participants

IEF Staff:

- John Barrows, MPH, Director of Programs
- Gwen O'Donnell, MA, MHS, Child Survival/Vitamin A Coordinator
- Geoffrey Ezepue, MD, Malawi Country Director
- Lovemore Mvula, Assistant to the Malawi Country Director
- Edna Tembo, Child Survival Project Manager
- Elton Chiumia, HIV/AIDS Advisor, Child Survival Project
- Frank Chola, Administrator, Child Survival Project
- Linda Khunga, Office Assistant, Child Survival Project
- George Mekiseni, Survey Coordinator, Child Survival Project

Nsanje District Staff

- Kennedy J. Chikonde, District Health Officer
- Kenneth Kandaya, Deputy District Health Officer
- Charles Nyirenda, Hospital Administrator
- Alice Batoni, District Nursing Officer
- Kennedy Ndau, District EPI Officer
- Patricia Chiyendausiku, Malaria Control Coordinator
- Hellen Ndisale, Reproductive Health Officer
- Ruth Kaliza, Maternal and Child Health Coordinator
- McLean Sosono, HIV/AIDS Coordinator
- Linbani Chaponde, Laboratory Technician
- J. Chirwa, Kalemba Clinical Officer
- Wasili Mathumula, District Health Environmental Officer
- Emmanuel Mthabwa, Senior Accounting Assistant

Other Organizatons

- Peter Benson, Project/ADP Manager, Nsanje District, World Vision International

The immediate next steps for the project will be for IEF's Malawi Country Director and Child Survival/Vitamin A Coordinator to participate in the DIP Mini University and to complete a final version of the DIP. Following that, training for the CSMC on planning methods, supervision, and monitoring & evaluation will begin. The process of developing training curriculums and checklists for supervision will also begin.

D. REVISION FROM ORIGINAL PROPOSAL

No major revisions from the application are reflected in this DIP. Several moderate changes were made, however, along with discussions with district staff led to several changes in the HIV/AIDs intervention. It was decided by the CSMC that due to financial and human capital constraints, it will not be feasible to implement the mobile VCT outreach or to extend VCT services to all health centers. Instead, integrated HIV, STD, and anemia services will be provided at the district hospitals, while health centers offer syndromic management of STIs, referring patients to one of the hospitals for VCT services.

Weaknesses identified in proposal reviewer comments have been addressed and suggestions incorporated into the project design. For a complete review of IEF's response to reviewer comments, please refer to Annex 1. Highlights from the response include:

- *Monitoring and Evaluation*: The monitoring and evaluation framework was extensively revised based on post-proposal review, reviewer comments, discussions with the CSMC, and peer discussions (CORE working groups, etc). The Results Framework was reorganized and a range of result/outcome and output indicators identified and incorporated into the design. In order to simplify the indicators as much as possible, and to ensure that the CSMC can routinely measure progress, the KPC 2000+ and Rapid Catch were used as the foundation for the Results Framework.

- *Supervision Standards*: The DIP clarifies the supervision and monitoring of health workers at all levels from the health facility to the community. Strengthened supervision includes revising the training of health workers based on expected performance indicators, designing and using observational performance checklists, and clarification of quality indicators.

- *Training*: The DIP clarifies how the project will organize and train health workers including Growth Monitoring Volunteers (GMVs), based on HH/C IMCI and the priority interventions (EPI, DCM, ARI, malaria, nutrition, and PMTCT).

- *Immunization*: Support for the Expanded Program for Immunization plays a central part of the project design as described in the DIP.

- *Neonatal Health*: The project does not included neonatal heath due to the short timeline (four years), in addition to staffing and budgetary constraints. However, neonatal health will be explored with the CSMC and in-country resources (Safe Motherhood and SCF) to determine what can be undertaken within the current project. Likely activities are to clarify the extent of the problem, assist in the review of strategies, activities and indicators, establish links to technical resources, prepare proposals, update current technical content and training curriculum, and potentially support training.

E.1. PROGRAM MONITORING AND EVALUATION PLAN

Overview

Central to the project is support to the District Health Office to improve skills in supportive supervision practices, and improved monitoring and evaluation. Although the Ministry of Health and Population has made recent improvements to the Health Information System (HIS) from the central level in preparation for implementing the Malawi Essential Health Package (EHP), the systems for supervision and monitoring progress at the district level require strengthening. The current HIS system is based primarily on collection and flow of facility based patient data from the facility to the district for reporting and forwarding on to the central level. Health Surveillance Assistant (HSA) and Community Health Volunteer (CHV) reports reflect community-based activities.

However, during the DIP development process this reporting was identified as inconsistently implemented. Data is of poor quality and does not reflect the roles and responsibilities of health workers, nor does it represent a comprehensive approach to providing preventative and curative health services. Furthermore, data is not consistently analyzed at the district level for management decisions, nor is it used to provide feedback to health facilities, HSAs, and the communities themselves. The lack of reinforcement of health worker performance contributes to the erosion of morale, diminished accountability, and a lack of ownership.

The challenge of the project is to build on the existing HMIS and support further improvements reflecting the HH/C IMCI approach that can be sustained by the Child Survival Management Committee (CSMC). Central to the plan for monitoring achievements and learning why certain results are or are not being achieved is based on the project design and results framework itself. Until recently, the district planned their activities on vertically driven interventions (EPI, ORT, GM, MCH etc) carried out by the facilities with some penetration into the communities through extension workers - HSAs and CHVs. More recently, the MOH has defined the Essential Health Package that provides a number of nationally defined, priority objectives. The value of this project is the elaboration of a Results Framework that incorporates these priorities and provides further definition to performance, standards, and coordination.

Results Monitoring
Progress will be monitored and results measured using several data collection methods and sources. In Table 1, *Data Collection System*, four levels of data collection are outlined including (1) household surveys to measure household knowledge, practices and use of services, (2) facility and capacity surveys to measure service quality, (3) Supervision and monitoring reports to measure outputs, service quality and service accessibility; and (4) project records and reports to document project processes and outputs. See Table 3, *SO and IR Indicators*, for additional detail on indicators, including their definition, source, and frequency of measurement.

Table 1: Data Collection System

	Method & source	Frequency	Purpose	Method and sample	Respon. Persons	SO/ IR
1	***Household surveys***					
	KPC 2000+	BL, EOP Annual/MTE	Outcome: Qualitative & quantitative measure caretaker and family knowledge, practice, service use	KPC 30 Cluster & Annual Rapid Catch (LQAS in Zone)	CSMC & M&E team	SO
	Nutrition Survey	BL	Outcome: Qualitative & quantitative assessment of child feeding practices, cultural factors affecting child feeding, availability of foods, adult anthropometric status & anemia prevalence	Household interview, focus groups, market survey, weighing, Hemacue	CSMC & Nutrition team	SO IR3 IR4
	PD HEARTH Sites	BL, EOP	Outcome & Output: Qualitative & quantitative assessment of child feeding practices & anthropometric status	As per PD HEARTH methodology	CSMC & Nutrition team	SO IR3 IR4
2	**Facility & capacity surveys**					
	M/OCAT & CSSA	BL, EOP	Outcome & Output: Qualitative measure of CSMC organizational & sustainability capacities	Modified OCAT; Participatory review	IEF	IR1
	HFA	BL, MTE, EOP	Outcome & Output: Qualitative measure service quality, and current practices in health facilities, logistics, practices, availability drug supplies	Part 1: Modified BASICS HFA in 11 HFs and DH	CSMC	IR1, IR2
	HFA	BL, MTE, EOP Bi-Annual	Outcome & Output: Qualitative measure health provider IMCI skills in assessment, classification, treatment practices	Part 2: Observation of health workers and exit interviews of mothers	CSMC	IR1, IR2

	Method & source	Frequency	Purpose	Method and sample	Respon. Persons	SO/ IR
3	**Supervision & Monitoring reports**					
	Health Facility HIS	Mo.	Output: Measure of patient service statistics OPD, ANC, EPI	MOH HMIS report format	MOH HF Medical Assistant, Nurse	IR1, IR2
	Zone Health Surveillance Assistants	Mo.	Output: Measure HSAs activities: training, supervision VHC, CHVs	HSA mo. report format	HSA & Zone supervisor	IR2, IR3, IR4
	Zone Health Surveillance Assistants	Biannual	Outcome: Qualitative measure of knowledge and skills in EPI, counseling, supervision of VHCs & CHVs	LQAS survey & observation checklist	Zone supervisor & HF	IR2, IR3, IR4
	Zone Community Health Volunteers	Mo.	Output: Measure CHVs activities: family rosters, training/ counseling mothers, referrals	Family roster, referral book	Zone HSAs, Zone supervisor	IR2, IR3, IR4
	Zone Community Health Volunteers	Biannual	Outcome: Qualitative measure of knowledge and skills in EPI, GM, counseling, supervision of women	LQAS survey & observation checklist	Zone supervisor & HF	IR2, IR3, IR4
	Zone Drug Revolving Funds	Mo.	Output: Reports on DRF progress, and sale of ITNs	Checklists	Zone supervisor	IR3
4	**Project reports**					
	Meeting reports	As needed	Output: Reports on meetings held	Minutes	As needed	IR1, IR2, IR3, IR4
	Training & workshop reports	As needed	Output: Report on individual training and workshops conducted including design, curriculum, materials, outputs	Training report	Training teams	IR1, IR2, IR3, IR4
	Progress Rpts. - PD/HEARTH - DRFs - VCT - BCC	Mo., Qtr., Annual	Output: Reports on: Zone supervision progress summary CSMC sector progress summary	6 Zone qtr reports Sector reports (M&E, IMCI, BCC, Nut., DRF, HIV/AIDS)	Zone supervisors CSMC supervisors	IR1, IR2, IR3, IR4

1. Household surveys

A series of surveys and assessments are planned and include the following:

Baseline, Mid Term and End of Project Surveys
IEF together with the CSMC conducted a baseline Knowledge Practice and Coverage (KPC 2000+) survey in November 2002. This survey provided one of the first experiences for the CSMC in conducting a population-based survey using a standardized methodology. The IEF HQ Child Survival Coordinator, and IEF national staff with prior experience implementing surveys in neighboring Chikwawa district, organized the survey. The survey was completed with the CSMC prior to the rainy season and the data entered into EpiInfo version 6.04b by a data entry clerk. The preliminary results of the survey were presented and discussed with the CSMC during the DIP workshop in April and data was used to reevaluate priorities and set targets.

To ensure quality of data, the questionnaire was carefully designed following protocols established in the KPC 2000+ training manual. Survey teams and interviewers were trained and team supervisors reviewed every fifth questionnaire on a daily basis. An IEF staff person with previous experience in data entry completed the data entry. After all forms had been entered, the data was cleaned and frequencies were generated with additional assistance from IEF HQ.

The KPC survey will also be repeated at the Mid Term Evaluation (MTE) and End of Project (EOP) periods using the same survey questionnaire and methods. During the MTE, however, the CSMC will evaluate whether to apply the entire set of questions or the Rapid Catch questions only. This decision will be based on discussion of data needs, time, and cost factors. The MTE survey will be part of the planned participatory evaluation using an external consultant and will assist in determining the progress made, providing an opportunity to adjust strategies and the work-plan. Results from the final KPC survey will help the CSMC to measure achievement of the SO and IRs and help plan for a new phase of programming.

Both the MTE and EOP surveys will be conducted, analyzed and reported prior to the external evaluations and the report findings summarized and reported within the CSMC and with the DTC and DA.

In addition to the baseline KPC survey, a qualitative nutrition survey will be designed and conducted to gather information in preparation for refining the nutrition interventions, such as PD/HEARTH and the behavior change intervention activities. The data will be collected through (1) household interviews, (2) focus group discussions on child feeding practices, cultural factors affecting child feeding and traditional beliefs on nutrition, and (3) a market survey of available foods.

There is little data specific to the district on nutritional status of women and children. The information collected will assist in evaluating the district's current strategies for nutrition promotion and for designing new approaches. The results of these assessments will be evaluated by the CSMC with the District Technical Committee (DTC) represented by the Ministry of Agriculture and Irrigation, Ministry of Gender Youth and Community Services, and Ministry of Education and

Culture. It will be important to include the DTC members as many of the underlying problems of nutrition in the district are also addressed through these other institutions.

The project plans to introduce PD HEARTH to the district beginning in February 2004. As part of the methodology, additional nutrition survey activity is planned at the specific HEARTH sites. Although these assessments are not representative of the entire district they are necessary to implement and measure the results of the PD HEARTH methodology.

2. Facility and Capacity Assessments

A major emphasis of the project is the strengthening of district systems supporting health centers and health posts, as well as the introduction of HH/C IMCI practices to the district. In order to measure service quality, several assessments will be conducted.

Facility Assessments

The CSMC and IEF conducted a Health Facility Assessment (HFA) at the two hospitals and eleven health centers in the district using tools published by BASICS and others to establish baseline measures for improving logistics and monitoring health worker performance. The initial assessment, the first of its kind in the district, focused on measuring district logistical support and supervision of health facilities and health workers.

IEF and members of the CSMC conducted the survey during March of 2003. A draft HFA questionnaire was designed based on the standard BASICS facility assessment. The questionnaire was field tested in a health facility in neighboring Chikwawa district and subsequently revised. The initial HFA report was discussed with the CSMC for comments and additional analysis and the summary results used to design the DIP. To complement the HFA, a second tool was designed to assess supervision of HSAs, and participation of Villages Health Committees (VHC) and Growth Monitoring Volunteers (GMV). The purpose of these short questionnaires was to identify the current status of knowledge and training needs and the frequency and quality of supervision. Data was collected over five days and data entered into EpiInfo v6.04b and analyzed by IEF.

The initial HFA did not evaluate the clinical practice of Medical Assistants and Nurses at health centers and health posts. Observation of provider/client interaction was not undertaken due to time constraints. However, baseline health worker performance will be assessed during a second phase of HFA in July 2003. The CSMC will conduct observation of Medical Assistants and Nurses to establish a baseline of performance to prepare for the introduction of the HH/C IMCI clinical training. Although it is assumed that providers are not following the IMCI protocols there is no data in the district on the quality of clinical practice. Such data will assist the District Health Officer and the CSMC to understand the need to establish standards, and protocols and to understand client perspectives.

The tools to be used to measure provider practices will be adapted from the BASICS HFA and also drawn from quality assurance tools developed in the neighboring Chikwawa district. Teams of two persons each will be formed and trained on how to conduct observational assessments and exit

interviews of patients. This data, gathered in July, will be analyzed by the CSMC and a report will be prepared and disseminated to health facility personnel.

Organizational Assessments

The IEF headquarters will conduct a third Discussion Oriented Self-Assessment (DOSA) in 2003 as part of its own strategic and organizational planning. At the project level, a similar organizational assessment will be conducted with the CSMC at the District Hospital. The purpose of the assessment is to provide the CSMC with new ways of understanding organizational capacity and sustainability, and to develop an improvement plan based on the self-assessment exercise.

The tool and process is in not yet designed. However, IEF will draft the tool and processes based on the Organizational Capacity Assessment Tool (OCAT) developed by PACT and the Child Survival Sustainability Assessment (CSSA) framework developed by the Child Survival Technical Support (CSTS) project. The tool and process will facilitate a self-assessment to ensure that the process itself is participatory, instructional and valued by the participants. The process is likely to include a planning meeting in country to "field test the tool," and to orient and train the Country Director in the process. The Director of Programs at IEF HQ will conduct the assessment during a one to two day meeting depending on the availability of CSMC members. To enhance the assessment process, members of the DTC will also be invited to widen the scope and impact of the exercise and to foster inter-sectoral coordination.

The results of the assessment will be presented to the CSMC during a short one day follow up workshop in order to develop an action plan with specific objectives and planned activities. Monitoring of the action plan activities will be done on a quarterly basis and a review of activities will be conducted as part of annual reports. The final report of the exercise will also be provided to the Ministry of Health and Population (MOHP), the USAID Mission during quarterly coordination meetings and to CSTS for feedback.

3. Supervision and Monitoring Reports

Health Facility HIS

As previously mentioned, every attempt will be made to use and support the MOHP Health Information System for routine reporting on health facility and health post activities to maximize sustainability.

The MOHP introduced a new national HMIS System in 2002 with the goal of improving record keeping and reporting. The system is based on three types of documentation:

- Clinic registers: Clinic registers include Tetanus Toxoid vaccine, antenatal clinic, maternity inpatient and delivery rosters, postnatal rosters, family planning rosters, under-one and under-five clinic registers, outpatient and ward registers. The system also includes standardized health cards for adults and children that must be purchased in advance by clients (MK15 for child card and MK15 for adult card) in order to receive services. These cards include information on family, recording vaccine, growth monitoring, and clinic attendance. The rationale for the

purchase of cards is to reinforce a sense of ownership by patients of the value of services, increase retention of essential health cards, and reduce the costs of re-supply of cards.

- Health Profiles: Health profiles include women, children, and general community member health profiles. The under five health profile includes the date of birth, village or TA of residence, doses of vaccines received, date of vitamin A administration, growth monitoring, treatment of illness, record of development, and any special attention. Similarly, the health passport of women contains history of pregnancies, outcome of pregnancies, Tetanus Toxoid Vaccination received, any special attention given, and diagnosis and treatment for other diseases.

- Monitoring and Reporting Forms include
  1) Data and monitoring worksheets for health facility and district levels;
  2) Quarterly reports from the health facility to the District Health Officer (DHO); and
  3) Quarterly reports from the DHO to Health/ Management Information Unit at MOHP HQ, and two other forms for the district hospital.

Under the current system, the Officer in Charge of the health facility serves as the HMIS officer at the health facility. S/he provides information to the District HMIS Officer on a monthly basis who in turn has the responsibility to feed data into the HMIS system. S/he also has the responsibility to and compile a monthly report for submission to the District Health Officer that is then forwarded on to the national database.

In addition to the facility HIS, the Health Surveillance Assistants and Community Health Volunteers have reporting forms. Their report includes information on vaccination, growth monitoring, water and sanitation and disease surveillance in the area. They also provide a descriptive report describing major activities during the period of report. Health Assistants and Health Surveillance Assistants are responsible for vaccination, the promotion of prevention practices (ORT, etc) and the promotion of water and sanitation. The HA, HAS forms are summarized in a summary report that is completed and forwarded to the district.

Some of the CHVs have also been provided with forms to report on their monthly activities including water and sanitation (counting latrines, water sources, health education, and disease surveillance). This information, in theory, is compiled on monthly basis by the HSAs who then send the reports to health centers which is then sent to hospitals. It should be noted that the community assessment showed that CHVs received little or no training and support for these activities. To improve reporting, the project will assist the CSMC in the design, training and implementation of tools to help the HSAs and the CHVs perform their jobs more effectively.

HSA Reporting Formats:

The HSA reporting formats are under review to clarify a standard set of activities linking the health facility to the community. Although HouseHold/Community IMCI (HH/C IMCI) has been introduced to Malawi, the HH/C IMCI is not well-defined and implemented. In order to change this, HSA, VHC and CHV training will be redesigned.

Supervision Checklists: The project is developing supervision checklists to be used by the CSMC, Zone Supervisors, HAs and HSAs. These checklists are based on the content of the training content and include a review of:

1) Vaccination practices
2) Growth monitoring practices
3) Health communication on essential health behaviors
4) Counseling practices on ORS, complementary feeding, and referral for malaria and pneumonia.

Use of the checklists requires that the supervisor meet with the HSAs and review the list of activities completed and observe HSA performance in vaccination, growth monitoring, and health communication. The HA or Senior HSA at the health facility will supervise the HSAs on a quarterly basis.

The observation of HSA practices will be conducted on a biannual basis with assistance from the Zone Supervisor. Based on these observations immediate feedback will be provided to the HSAs and areas of support identified. The challenges of observational checklists are to ensure that supervisors are skilled in supportive supervision practices and that they correctly use checklists. The results of observation checklists will be analyzed by the CSMC during quarterly meetings to identify areas needing improvement.

Community Mobilization:

Currently, HSAs do not have standard tools for organizing communities and CHVs in anything other than water and sanitation promotion. The CSMC will support the training of HSAs on mobilizing communities using Participatory Rural Appraisal (PRA).

Participatory Rural Appraisal (PRA): PRA is not a new tool in Malawi but is not consistently utilized by the MOHP to assist communities to mobilize. PRA will be incorporated into the basic training of HSAs and will become part of their duties when working with communities. Each HSA is expected to help each of their assigned communities form a Village Health Committee (VHC). As part of this support the HSA will conduct a PRA exercise to include:

- Discussion of the roles and responsibilities of the VHC, CHV, and HSAs; and introduction to HH/C IMCI concepts & practices.
- Village mapping (identification of groups and organizations in the community and their relationship and importance for decision-making).
- Problem ranking (identification of perceptions of the 10 most important health and social problems faced and exercises in ranking and priority setting).
- Seasonal calendar (identification of seasonal trends in the community and their relationship to health problems and health services).

Community Population

Due to the fact that HSAs and CHVs do not have standard tools for organizing communities and households, the CSMC will support training of HSAs, VHCs, and CHVs on conducting population census in villages, and establishing household rosters.

Census: HSAs are responsible for approximately 2000 people in their catchment areas. The new Zone Supervisor will work with facilities and HSAs to complete a population census of the total number of households and to classify them in a manner as shown in the table below.

Age	**Number**		**Total**
	M	**F**	
Children < 5	///	//	/////
Children 5-15	/////	////	/////////
Adults 16 – 45	/////	///////	//////////
Adults > 45 years	//	///	/////

This census will be conducted at baseline, and then as needed. This data is especially important to the southern part of the district as the District Hospital serves is the primary care center for a large number of Mozambicans living on the boarder. This data will also assist the CSMC to reevaluate how villages and HSAs are assigned to the Zone areas. In addition to census, the number of villages will be researched and maps updated as needed. Currently, GPS mapping is not feasible in the district. However, the National statistical office is digitizing their population data and mapping which may become available to districts at a later date.

Household Rosters: The CHVs are in theory responsible for approximately 30 households to provide health education, promote vaccination, counsel on diarrhea, pneumonia, malaria, breastfeeding (BF), complementary feeding, and to provide ORT packets and ITNs.

The project will assist the CSMC to implement a simple household roster system using a standard notebook. Each CHV will be trained to list the children in their assigned households by age and month of birth beginning with the oldest (five years of age). Each subsequent page in the notebook lists the next month of the year with the most recent born in the community. A continuous list of newborns is thus logged into the roster and a children according to age can be quickly determined. The CHVs will also be trained in the use of simple notations to indicate vital events and use of services (death, relocation of child to another village, complete vaccination status, receipt of a VAC, etc.). These rosters will be reviewed by the HSAs for completeness and accuracy during supervision visits.

4. Project Records

Lastly, the fourth data collection method included in the monitoring and evaluation plan is a series of project documents and reports needed to document and track the activities, tasks, and implementation processes. Project reports include:

- Meetings: Numerous meetings will take place on all levels. To record decision at major meetings (CSMC, etc.) meeting agendas and minutes will be produced.

- Training: A major weakness is the lack on documentation of the numerous training activities undertaken in the district. To foster learning and to generate lessons learned, improvement to the documentation of training activities will take place. A core training working group will be established to be responsible for ensuring that for each training activity the following is documented:
- A needs assessment and skill inventory is conducted
- Develop a written curriculum and training and facilitation plan with budget
- Conduct pre and post tests of participants
- Complete a training report that includes a summary of learning objectives accomplished, participant lists, and expense reports.

  The value of improved documentation will help the CSMC and trainers learn from cumulative training experiences, reduce time to design and conduct training, and reduce dependency on a few trainers who may be transferred to other districts.

- Progress reports: Additional progress reports are required to document progress on other project interventions such as PD HEARTH, DRFs, VCT, BCC, etc.

- Annual and evaluation reports: Annual reports will be prepared by the CSMC, along with mid term and final evaluations produced.

Supervision and Monitoring Process

The previous section described the data collection methods and sources required to monitor and evaluate achievements. Central to the project is also support to the CSMC to improve the organization of and practice of supervision.

One of the greatest weaknesses to be addressed is to establish a comprehensive approach to supervision and monitoring. Currently, supervision is inconsistent, roles and responsibilities are often not clear, reporting is incomplete and not used for management purposes, and there are skill and other resource gaps.

The project will help strengthen the supervision system by supporting the staff, organizing supervision zones, providing supportive training in Supervision, Monitoring, and Evaluation, Performance Improvement (PI), and providing additional data from the community level.

1. Reorganize District

Create Supervision Sub-Zones

To initiate and support changes, the IEF will appoint a full time staff person responsible for coordinating monitoring, evaluation and reporting. This individual will work with designated CSMC Coordinators, each responsible for a particular sector (HH/C IMCI, training, BCC, nutrition, management, etc.). The IEF staff will ensure that data reaches the health office regularly and on time, and will assist in the analysis of information, compilation of reports, preparation of presentations, and provision of feedback to health workers.

IEF re-introduced idea of sub-zones to organize supervision, monitoring and evaluation to the CSMC. This idea has been successfully implemented by other PVOs in other districts and has resulted in better quality and timely reporting, reinforcement of health worker performance, and improved documentation for decision-making. The CSMC has divided the district into six zones in order to implement effective, efficient and close supervision. The divisions take into account general geographic boundaries, the distance between health facilities, and transport constraints. (See Annex 9 for the map.) The identified zones are:

Table 2. Zone Distribution

	Zone	Health Facility	No. Health workers	No. Villages	No. Population
1	South	Lulwe H/C* Ching'oma H/P* Kamphata H/P Ndamera H/C Mbenje	HF = 5 HSA = 55	207	60125
2	Boma	Chididi H/C District hospital	HF = 39 HSA = 34	81	44554
3	Tengani	Mkango H/P Tengani H/C Nyamithutu H/C	HF = 5 HSA = 20	55	30218
4	Bangula	**Phokera H/C** **Kalemba H/C** **Sorgin H/C** **Kanyimbi H/P** **Misamvu H/P**	HF = 18 HSA = 37	83	44088
5	Makhanga	Sankhulani H/C Mchacha H/P Makhanga H/C	HF = 3 HSA = 16	44	21985
6	Mlolo	Masenjere H/C Trinity Hospital Mlolo H/P	HF = 40 HSA = 25	70	35768
	TOTAL	21	HF = 110 HSA = 187	540	236,738+

*HC = Health Center HP = Health Post (Dispensary) + the population figure is different from official census figure.

Improve Supervision Process

Each of the zones has one supervisor based at or near a health facility and who provides close monitoring to the HSAs, VHCs, and CHVs. The Zone Supervisor will be provided with a motorcycle or a bicycle to assist in supervision within the zone and to travel to and from the zone and the District Hospital for meetings.

There will be monthly meeting of the health workers (community & facility-based) at the zonal, level while on quarterly basis the zones will meet together at the district headquarters to discuss issues related to reporting and HMIS. The quarterly meeting will also be used to discuss problems identified during the quarter while continuous training on quality improvement will be provided.

By design, the HSAs send their activity reports to the senior HSAs in the zone. The senior HSAs then report to HA at the health facility. At the moment, there are only three HAs in the district.

The HAs send their reports to the Assistant Environmental Health Officer (AEHO). (The district plans to establish two AEHOs, however, both positions have yet to be filled). As a result, the HSA reports are submitted directly to the District Environmental Health Officer (DEHO).

The reporting process is weakened by a lack of staff, parallel reporting processes, poorly collated reports, and minimal oversight and feedback. In order to make immediate improvements, the project will begin to involve Medical Assistants and/or Nurses in health centers to ensure that all reports are completed and verified prior to being sent to the district.

Additional problems noted are the receipt of reports sent from HSAs to the district and the reports prepared by HSAs and sent to the district without coordination. In some cases there is duplicative reporting resulting in confusion and inaccurate data summaries. In still other cases, the reported numbers are not credible and indicate that either the HSA does not know how to complete the form, or does not understand his/her responsibilities. To rectify this, the HAs will now collect the HSAs reports and submit them together with their report to the person in charge at the health facilities. A tracking of reports can thus be maintained.

The project will assist the CSMC by supporting continuous training and supervision. The quarterly district Zonal Supervisor meetings will greatly help to fulfill this objective. Moreover, the M&E trainer will visit health facilities that turn in incomplete or unreliable reports and provide on the job training, explaining the importance of accurate data collection, and demonstrating correct data collection.

Other noted problems are stock outs of the necessary reporting forms developed by the MOHP used for data collection. The project will assist the district by helping to print and distribute needed forms to all health facilities and HSAs. Training will also be provided to the persons involved in reporting to ensure that all staff understand the importance and correct use of these forms.

Currently, supervision by the CSMC is also uncoordinated. The current practice is to provide a routine visit to the health facilities by the Clinical/District Officers to treat medical cases that the

health facility workers are unable to treat. During these visits, supervision of activities is provided. However, the time allotted is normally inadequate and many issues are not addressed.

Rarely are there integrated joint supervision visits done by the district. The reasons for this were discussed by the CSMC and reasons noted as "unwillingness," "lack of commitment," and improper priority setting by the district officers.

The project will continue to work with the CSMC to design efficient supervision practices and provide training as necessary. In part, IEF will work with the CSMC to develop expectations and standards for reporting and supervision. Supervision checklists and monthly supervision schedules will be developed and used to guide activities and form the basis for improvement planning. The Project M&E Officer will then coordinate and ensure that project staff and the CSMC carry out the planned supervisions jointly. It will be planned that each health facility will be visited at least once every quarter.

During supervisory visits, the performance of the health facility worker will be evaluated to determine their performance in use and practice of the HH/C IMCI protocols and to provide comments on reporting and examine the premises and inventory system. As much as possible, all supervisory visits will be used as an opportunity to provide on-the-job training for health facility workers.

On a biannual basis, the project M&E staff with specific intervention trainers will conduct "mini" health facility assessments to observe the performance of health facility workers, conduct patient exit interviews, and observe treatment cards.

2. Improve Use of Data and Coordination

A major weakness noted in the facility assessment review is the lack of analysis of reported data and use of data for management purposes. In most cases, reported data is forwarded to the central level without further review.

Traditionally, information is generally not shared outside the group of senior officers. The following measures will take place to improve this:

- Data will be analyzed on a monthly basis by the CSMC and presented during the quarterly CSMC meetings. Data will be summarized and compared to the planned targets in the work-plan and progress and/or lack there of will be discussed and reflected in monthly and quarterly work-plans. Also based on the information and observations during monthly supervision visits, appropriate training will be designed for the health facility staff and community health volunteers.

- To effectively share information with communities, summary handouts with simple graphics and pictures will be prepared and provided to the Zone supervisors and health facilities for feedback to the communities through HSAs.

- The CSMC will hold an annual retreat workshop to review progress and develop the following year's work plan. Results from all reports will be summarized by IEF and reported to the MOHP, the USAID Mission, and IEF headquarters.

- The District Health Forum will be created in order to bring together all health actors in the district including representative of the Zones (health facility staff, HSAs, and representative senior HSAs) NGOs, CHAM medical services, and representatives of the District Assembly. The District Forum is a two day meeting held to report on progress, identify stakeholder interests, and foster coordination.

- Reporting will also be shared with the District Technical Committee (DTC) and District Assembly during their meetings. Currently, the DTC meets on an as needed basis and the CSMC will encourage regular quarterly meetings. The District Assembly meetings are organized by the District Commissioner's office and meet on a regular basis four times per year.

3. Support Skills Development

Other supportive activities planned are:

- Training in planning: To strengthen skills, IEF will assist the CSMC in strengthening their planning, monitoring and evaluation skills by conducting a short training workshop. The training will consist of the basic essentials of planning including: problem identification and definition, identifying appropriate solutions, writing measurable indicators, and developing work plans and activity based budgets. The training will also introduce Project Cycle Management methods developed by TEAM Technologies, Inc., and computer software options.

- Training in quality assurance: The project design and supervision activities are oriented to improving the performance of health workers at all levels. The HH/C IMCI training at the facility level is based on the national IMCI training curriculum and algorithms. HSA & CHV training is based on developing new skills for providing home-based care (ORT, ARI, malaria treatment, ITNs, etc), and counseling on health seeking and referral in emergencies. In order to strengthen supervision and monitoring skills, performance improvement management methods will be introduced.

IEF has experience in the neighboring Chikwawa district in Quality Assurance (QA) management methods. In a sister project, QA teams were trained and supported to undertake QA improvement activities. Training was provided from the resident Quality Assurance Project Advisor based in Lilongwe. Evaluation of these activities concluded that the QA process was complicated; there were too many individual teams working on problems that were not sufficiently defined, and the teams could not be supported by the CSMC without continuing resources.

Based on this experience, the QA support activities will be reorganized by introducing a simpler quality improvement process based on the PRIME II Project Performance Improvement Stages, Steps and Tools. This process is based on the same concepts of problem solving, performance gap analysis, and identification of appropriate solutions. However, the PI approach considers the capacity of the organization that supports, delivery of health services. The PI process works by

gaining greater stakeholder involvement that is needed to sustain service delivery and improvement processes.

The project will seek technical assistance from JHPIEGO based in Lilongwe to provide orientation on Performance Improvement (PI) Stages, Steps and Tools modules[3] If formal assistance cannot be arranged, IEF will provide the technical assistance from its HQ staff who have been training in quality assurance management methods. A formal five-day training will be organized by IEF for the CSMC and members of the District Technical Committee (DTC) to introduce quality assurance concepts and begin discussion on implementing the PI processes. Inclusion of the DTC members will strengthen support for the CSMC and lead to the sharing of experiences and possibly resources that support supervision practices.

The QA/PI activities will differ from IEF's previous experiences in Chikwawa, first by clarifying the roles and expectations that QA/PI plays in district health services, and identifying team members that can be supported with ongoing training and incentives within the constraints of the district resources. Another lesson learned from previous experience is to define a set of improvement problems that can be managed. Instead of establishing a team at each health facility that is responsible for identifying their own set of problems to work on, the agenda of the PI process will be defined by the CSMC. The areas of improvement are the critical skill and performance indicators identified in the project design that focus on:

1) Improving medical assistant/nurse application of HH/C IMCI protocols (assessment, classification, treatment);
2) Improving the logistic and management support functions (drug inventory, supply, logistics, reporting);
3) Improving the supervision processes between the CSMC, health facilities, the HAS, and communities; and
4) Improving the performance skills of the HSAs and CHVs, (e.g., vaccination, growth monitoring, record keeping, reporting, health communication, counseling and referral).

By incorporating the QA/PI activities into the supervision and monitoring processes that are central to the success of the project, QA/PI becomes part of the management practices rather than a separate "project" by health staff.

Operations research

No operational research will be conducted other than necessary qualitative assessments described above to develop BCC, HEARTH, malaria, VCT/ PMCTC, and DRFs.

[3] Performance Improvement, Stages, Steps and Tools, A practical Guide to facilitate improved performance of health care providers worldwide, PRIME II Project/ Intrah, School of Medicine UNC.

SO: Families and Caretakers with Children Under Five Years of Age Practice Healthy Behavior and Seek Care From Quality Providers

	Performance Indicator	Result Type	Targets			Data Source	Data Method	Frequency
			BL	MT	EOP			
1	% of children 12-23 months who are fully immunized before their first birthday	SU	63	75	85	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
2	% of children 12 – 23 mos who receive measles vaccine before 1st birthday	SU	70	80	85	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
3	% of children 12-23 months who received VAC within 6 months of the survey date	SU	89	90	95	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
4	% of caretakers who treat children 0-23 months with ORT during their last diarrhea episode	BP	55	65	75	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
5	% of children 0-23 months who slept under an ITN the night prior to the survey	BP	17	35	60	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
6	% of women who took SP to prevent malaria during her last pregnancy	SU	75	80	90	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
7	% of caretakers who took children 0-23 months to health worker for diarrhea, fever, or difficult breathing after recognizing illness symptoms	BP	84	90	95	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
8	% of children 0-5 months who are exclusively breastfed	BP	55	60	75	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
9	% of children 6-23 months who consumed the same amount or more foods during most recent episode of reported illness	BP	49	60	75	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
10	15% of children 0 – 23 mos who are underweight (-2SD from median WFA WHO/NCHS reference)	HS	39.5	35	30	KPC Rpt. LQAS Rpt.	KPC survey LQAS M&E	BL, EOP MTE
Notes: HS = health status; SU = service use; BP = behavior practice; SA = service access; SQ = service quality; KN = knowledge; OP = output								

IR.1. Strengthened Organizational Effectiveness and Health Management Systems

	Performance Indicator	Result Type	Targets			Data Source	Data Method	Frequency
			BL	MT	EOP			
1	% of facilities that have a stock out of essential medical supplies (e.g. ORS, SP, cotrimoxazole, vaccines) in the 3 months prior to facility assessment	SQ	-	8	5	Facility Assess. Rpt Zone Super. Rpt.	Health Facility Assessment (HFA)	Biannual
2	% of facilities by Zone that have received at least 1 supervisory visit using observation of health worker practice in the 3 months prior to the facility assessment	SQ	67	85	95	Facility Assess. Rpt. Zone Super. Rpt.	HFA	Biannual
3	% of HSAs by Zone that have received at least 1 supervisory visit using observation of health worker performance and feedback in the 3 months prior to facility assessment	SQ	89	90	95	Facility Assess. Rpt Zone Super. Rpt.	HFA	Biannual
4	% VHC/GMVs by Zone that have received at least 1 supervisory visit by HSA using a checklist in the 3 months prior to facility assessment	SQ	-	60	80	Facility Assess. Rpt Zone Super. Rpt.	HFA & M&E	Biannual
5	% of VHCs that are established, trained and meet at least 1 time per quarter as verified in village records	OP	70	80	90	LQAS and Super. Rpts.	LQAs and M&E	Biannual
6	% of CSMC annual work-plan activities completed on time	OP	-	85	95	Quarterly and Annual Reports	M&E Reports	Quarterly
7	% increase in self-earned revenue from hospital sustainability activity per year	SA	0	5	15	Financial Reports	M&E	Quarterly

IR. 2. Improved Prevention and Management of Childhood Illness

	Performance Indicator	Result Type	Targets			Data Source	Data Method	Frequency
			BL	MT	EOP			
1	% of sick children 0-5 years whose health cards were checked for immunization, VA status and growth monitoring	SQ	-	85	95	Supervision Reports	Super. Visits, Performance Assessments	Quarterly
2	% of children 0-5 years who present with fever and are correctly assessed, counseled & treated for febrile illness/malaria	SQ	-	80	95	Supervision Reports	Super. Visits, Performance assessments	Quarterly
3	% of children 0-5 years who present with difficulty breathing and or cough and are correctly assessed, counseled & treated for ARI	SQ	-	70	90	Supervision Reports	Super. Visits, Performance Assessments	Quarterly
4	% of children 0-5 years who present with diarrhea and are correctly assessed, counseled, and treated for diarrhea	SQ	-	70	90	Supervision Reports	Super. Visits, Performance Assessments	Biannual
5	% of HSAs demonstrate competence in EPI vaccination and GM protocols at time of assessment	SQ	-	60	80	Supervision Reports	Super. Visits, LQAS Surveys	Biannual
6	% of HSAs demonstrate competence in counseling VHC & GMV in promotion of home care practices (ORT, malaria, ARI, W&S) at time of assessment	SQ	-	60	80	Supervision Reports	Super. Visits, LQAS Surveys	Biannual
7	% of GMVs demonstrate competence in counseling mothers and families in home care practices (ORT, malaria, ARI, BF, W&S) at time of assessment	SQ	-	65	70	Supervision Reports	Super. Visits, LQAS Surveys	Biannual
8	% of sick children referred by GMVs received attention by HF	SQ	-	60	70	Supervision Reports	Super. Visits, HF Referral Records	Biannual
9	# of DRFs established & operational according to the new strategy	SQ	-	20	60	Zone Supervision Report	Super. Visits, HFA	Biannual

IR. 3. Increased Availability and Accessibility to Quality Preventative and Curative Health Services

	Performance Indicator	Result Type	Targets			Data Source	Data Method	Frequency
			BL	MT	EOP			
1	% health facilities that provide daily immunization daily immunization services	SA		80	100	Monthly Report	M&E	Monthly
2	% of planned (17,000)[4] ITNs sold	SA	-	60%	85%	ITN Quarterly Report	M&E	Quarterly
3	% of persons tested and counseled by NDH VCT unit in the 3 mos. prior to assessment[5]	SA	-	50%	80%	Monthly and Quarterly Reports	M&E	Monthly and Quarterly
4	% of mothers of children 0- 23 mos. who know at least two ways of reducing the risk of HIV/AIDS	SA	58	70	80	KPC Report	KPC Survey	MT & Final
5	% scheduled Under 5 clinics (static and mobile) conducted in the 12 months prior to facility assessment	SA	80	90	95	Monthly Report Supervision Report	M&E	Monthly and annual

[4] Calculation for 17,000 figure: (33,000 kids < 5 yrs. of age) x (50% purchase a net) = 17,000 nets (approximately).
[5] Based on capacity at the NDH, approximately 660 persons can be tested and counseled per year, meaning an expected total of 2,640 persons will be tested by the EOP.

IR. 4. Increased Community Participation and Demand for Health Services

	Performance Indicator	Result Type	Targets			Data Source	Data Method	Frequency
			BL	MT	EOP			
1	% of mothers with children 0-23 months able to demonstrate correct use of ORS	KN	52	70	80	KPC LQAS	Surveys, M&E	BL, MT, EOP, Biannual
2	% of mothers with children 0-23 mos who report hand washing with soap/ash before food preparation or child feeding, after use of latrine or cleaning after child	BP	3	30	50	KPC LQAS	Surveys, M&E	BL, MT, EOP, Biannual
Notes: HS = health status; SU = service use; BP = behavior practice; SA = service access; SQ = service quality; KN = knowledge; OP = output								

IR.1. Strengthened Organizational Effectiveness and Health Management Systems

See indicators above			
Major Planned Activity	**Benchmark/Targets**	**Time frame**	**Personnel**
Management Functions	*Management Functions*		
• Identify staff and locate to district	• Staff hired and housed in District	Oct. '02 – Mar. '03	CD & IEF /HQ
• Establish project office	• Project office operational	Oct. '02 – Mar. '03	CD
• Procure supplies and equipment	• Essential supplies and equipment in place	Oct. '02 – Mar. '03	CD & IEF/HQ
Strengthen Planning	*Strengthen Planning*		
• Conduct CSMC planning orientation	• CSMC's role and responsibilities clarified	Oct. '02 - Nov. '02	IEF staff
• Conduct BL, MTE, EOP surveys	• Surveys and DIP completed and reported	Nov. '02 – Mar '03	Staff &CSMC
• Conduct MOH organizational and sustainability assessment	• CSMC capacity strengthening plan in place	Jan.- Mar. '04	Staff
Strengthen training, M&E Reporting Skills	*Strengthen Training, M&E Reporting Skills*		
• Establish training, supervision and monitoring system	• Zone training and supervision teams functional and reports submitted to CSMT	Jul.-Sept. '03	CSMC
• Conduct LQAS workshop	• Bi-annual LQAS monitoring survey and report completed and disseminated	Oct. – Dec. '03	M&E Advisor
• Conduct district Performance Improvement training	• CSMT produces Performance Improvement strategy and supervision teams trained and implementing PI	July – Sept. '03	National QA secretariat
• Conduct BL, MT, EOP evaluations	• Evaluation reports completed and submitted to donors	Nov.'02, Jul.'03 Jul.'06	Staff and Consultant
Strengthen Systems	*Strengthen Systems*		
• Establish logistics and inventory system	• Logistic and inventory reports submitted	Jan. – Mar. '04	Malawi Institute of Management
• Establish budget and financial system	• Financial reports submitted	Jan. – Mar. '04	
Strengthen Sustainability	*Strengthen Sustainability*		
• Establish cost sharing activities	• Cost ward and spectacle shop operational	Jan. – Dec. '04	IEF sustainability Officer (HQ)
Improve Inter-Sector Coordination	*Improve Inter-Sector Coordination*		
• Conduct DTC and District Assembly orientation	• Inter-sector stakeholders understand roles and responsibilities in DTC and DA plan	July '03	CSMC
• Conduct CSMC coordination progress workshops	• Zone health facility teams report progress, gain feedback from peers, and develop annual work-plans	August '03' 04, '05, '06	CSMC
• Conduct CSMC intra-district forum	• Ministry and local leadership stakeholders understand progress and constraints and develop annual coordination work-plans	July '03	CSMC

IR. 2. Improved Prevention and Management of Childhood Illness.

See indicators above			
Major Planned Activity	**Benchmark/Targets**	**Time frame**	**Personnel**
Establish HH/C-IMCI Framework	*Establish HH/C-IMCI Framework*		
Conduct CSMC Inter-sector Orientation for HH/C-IMCI.	Zone training schedule functional and implemented.	July/August '03	CSMC
Conduct District Training of Trainers for HH/C-IMCI	District trainers trained in HH/C-IMCI and adult learning techniques.	July '03	National IMCI Secretariat
Conduct HH/C-IMCI Training for Facilities.	13 Health facilities trained and implementing IMCI.	August '03	Trained Trainer
Conduct Pilot Zone HH/C-IMCI Training for: • Facility support staff. • HSAs.	Zones 1, 2 Facility teams trained and practicing skills • 13 Health facility support staff • 90 HSAs	Aug. – Sept. '03	Trained Trainers
Assess Zone Implementation Strategy	Improvement and replication schedule implemented.	January '04	IMCI Trainer
Continue Zone Training.	Zones 3,4,& 5,6 Facility teams trained and practicing IMCI • 26 Health facility support staff • 130 HSAs	February/March '04	IMCI Trainer

IR. 3. Increased Community Participation and Demand for Preventative and Curative Services

See indictors above IR3			
Major Planned Activity	**Benchmark/Targets**	**Time frame**	**Personnel**
Improve Community Mobilization • Conduct review of community mobilization strategies. • Establish village maps and rosters. • Conduct pilot Zone training on HH/C-IMCI for VHCs.	*Improve Community Mobilization* • Revised community management and mobilization strategy designed. • Lists of families with children and women documented. • VHCs understand role and responsibilities supporting HSAs and CHVs.	July – Aug. '03 April –Sept. '04 January '04	CSMC VHC &CHV IMCI Trainer

Train CHVs C-IMCI
• Conduct pilot Zone training on HH/C-IMCI for CHVs.
• Assess Zone implementation strategy.
• Continue Zone training CHVs.
	C-IMCI = Essential Behaviors & Core Interventions
	• Zones 1, 2 trained and practicing skills
	  • 93 CHVs
	• Improvement and replication schedule implemented.
	• Zones 3,4,& 5,6 CHVs trained and practicing skills
	  • 186 CHWs
		January '04
		April '03
		April - June '04
			MCI Trainer
			CSMC
			IMCI Trainers

Improve Health Communication Strateg - BEHAVE • Conduct assessment of MOH education materials and education practices. • Conduct BC & communication meeting. • Establish links with partner NGOs for TA • CSMC trained in BEHAVE framework. • Conduct BCI formative research • Develop strategy and materials • Conduct training for facility support staff and HSAs • Conduct training for VHCs and CHVs in BCI intervention	*Improve Health Communication Strategy - BEHAVE* • Existing materials and approaches improved. • Adult education team adopts BCC strategy. • Technical exchange and training conducted • CSMC implementing BEHAVE framework. • Strategies identified to address priority intervention's target audience in child health behaviors • Strategy and materials developed, disseminated and implemented. • HSAs trained in BCI. • VHCs and CHVs trained in BCI.	June - July '03 Jan. – Mar. '04 Nov. - Dec. '03 Jan. '04 Feb. – Mar. '04 April '04 May '04 June – July '04	CSMC MCH Trainer IEF CD SCF CSMC CSMC Trained Trainers MCH Trainer

IR. 4. Increased Availability and Accessibility to Quality Preventative and Curative Health Services

See indicators above IR4			
Major Planned Activity	**Benchmark/Targets**	**Time frame**	**Personnel**
Strengthen EPI/ VA/ DCM, ARI Services	*Strengthen EPI/ VA/ DCM, ARI Services*		
• Conduct kick off EPI+ campaign.	• 22 immunization sites provide vaccine and communities introduced to CS project.	Oct. '02 – Sept. '06	CSMC, HF staff & CHV
• Conduct annual sub District NIDs campaign?	• 22 sites provide vaccine and VACs.	Sept. '03, '04, '05, '06	CSMC, HF staff & CHV
• Conduct Zone facility and mobile U5 outreach clinics.	• 22 static & mobile U5 outreach clinics provide services in 6 Zones to 9750 children; 44,850 of women in child bearing age	Oct. '02 – Sept. '06	
Malaria	*Malaria*		
• Establish links with PSI for ITN/ IPT TA.	• Technical exchange and training conducted.	November '03	CD & PM
• Conduct training for CHVs in ITN/ IPT	• 350 ITN CHVs providing ITNs in 6 Zones to: • 33,150 mothers with children	January-February '04	PSI
Pilot Drug Revolving Funds	*Pilot Drug Revolving Funds*		
• Conduct review of DRF experience in Malawi	• Report completed and disseminated	March '04	CSMC
• Conduct planning meeting.	• DRF pilot strategy established.	April '04	CSMC
• Establish DRF pilots.	• 20 DRFs piloted in 2 Zones.	April-May '04	IMCI Trainer & VHC
• Evaluate DRF effectiveness.	• 60 new DRFs established in 4 Zones.	July-August '04	CSMC
Improve Nutrition Services - PD/HEARTH	*Improve Nutrition Services - PD/HEARTH*		
• Establish inter-sector team	• Inter-sector team budget time and resources.	November '03	PM, CSMC
• Establish links with SCF for HEARTH TA	• Technical exchange and training conducted.	November '03	CD &PM
• Determine feasibility	• Informed decision to proceed with pilot.	December '03	PM & CSMC
• Mobilize pilot communities	• Identify communities and train team members	December-January '04	MCH Trainer
• Prepare & conduct PD inquiry.	• BL practices & nutritional status completed.	January-February '04	Staff
• Design HEARTH sessions	• Key behaviors identified and sessions designed.	February '04	MCH Trainer
• Conduct HEARTH sessions	• Malnourished children treated.	March/April '04	MCH Trainer
• Support follow up visits	• Coaching and follow up provided.	May '04 – Sept. '06	MCH Trainer
• Repeat HEARTH as needed	• Follow up on those continuing malnourished.	May '04 – Sept. '05	MCH Trainer
• Expand PD/HEARTH	• HEARTH replicated in new communities.	July '04 – Sept. '05	MCH Trainer
Improve HIV/AIDS Counseling - VCT	*Improve HIV/AIDS Counseling - VCT*		
• Establish inter-sector team.	• Inter-sector team budgets time and resources	April '04	PM & CSMC
• Establish link with MACRO for TA.	• Technical exchange and training conducted.	April '04	CD & PM
• Procure equipment & supplies.	• Essential testing equipment in place.	April '04	CD & PM
• Conduct training district team.	• VCT services demonstrated.	May '04	MACRO
• Conduct formative research	• HIV/AIDS behavior documented.	November '04	CSMC
• Implement district based services.	• VCT services available at district hospital	May '04 – Sept. '06	Trained Counselors
• Monitor and evaluate.	• Best practices documented	May '04 – Sept. '06	HIV/AIDS Trainer & M&E Trainer

E.2: SUMMARY OF BASELINE AND OTHER ASSESSMENTS

Location and Population of Nsanje District

Nsanje is Malawi's southern most district, bordered by Chikwawa District to the north, Thyolo District to the northeast, and Mozambique to the east. Nsanje is part of the Lower Shire Valley (LSV) at low altitude (100 meters above sea level) with a hot, dry climate. Droughts occur regularly, interspersed with years of good rainfall and years of excessive rain, resulting in serious flooding. (Refer to Annex 5 to view the map.) The official government population figure for Nsanje is 194,481. However, the district hospital reports that the population is closer to 236,738 without the means to verify this figure. The district suspects under reporting large numbers of migrants from neighboring Mozambique who regularly use district services. Using a population growth rate of 1.39% and calculating five years of growth, the total population should be around 208,375.[6] The real population is probably somewhere between 208,375 and 236,738. Nevertheless, the project will use the official national 1998 census population figure of 194,481.

Assessment Methodologies

Three assessments were completed in preparation for the DIP, namely the Knowledge, Practice and Coverage (KPC) Survey, the Health Facility Assessment (HFA), and a Community Assessment of GMVs, VHCs and HSAs. The following is a description of the methodologies and sampling design involved in each survey.

1. Knowledge, Practice and Coverage Survey

The objective of the KPC survey was to determine caretaker health seeking behaviors and health knowledge, as well as to assess the prevalence of childhood disease and malnutrition. The questionnaire was developed with input from several CSMC members. Topics covered in the questionnaire included: socio-economic information, water and sanitation, maternal health, breastfeeding and nutrition, immunizations, diarrheal case management, acute respiratory infections, malaria case management, HIV/AIDS, food security, growth monitoring, and anthropometry. The questionnaire was 13 pages long and took approximately 40 minutes to complete. It was translated into Chichewa, the local language, and then translated back to English by a different person to ensure quality control.

Nsanje District is traditionally demarcated into seven Traditional Authorities (TAs), namely: Ndamera, Mbenje, Mlolo, Ngabu, Tengani, Malemia, Nyachikadza, Chimombo and Makoko. The KPC survey coordinator generated a list of villages in each TA with corresponding population sizes. The cumulative total population of each village was then calculated to facilitate the selection of clusters. Thirty clusters were systematically chosen by starting with a random number taken from the serial number of a Malawi Kwacha bill. The village with a population size closest to the random number became the first selected village. To determine the subsequent villages, a sampling frame number was used, chosen by dividing the total population of the district by the number 30. This number was then added to the population of the first village

[6] World Fact Book. 2002.

identified to determine the second village. The same process repeated itself until 30 clusters were identified.

A total of ten households were interviewed per cluster (i.e. 300 households were visited). Flipping a coin decided who would be interviewed in a household with more than one mother with a child less than two years, or more than one child less than two years. Each household visit lasted approximately 40 minutes. It took ten days to complete the survey. The main constraints associated with data collection were funerals in some communities that required interviews to be re-scheduled. Certain roads were also impassable, requiring the survey team to walk for several hours to arrive at a village.

To maintain high quality data collection, supervisors closely monitored interviews and the filling out of questionnaires. One supervisor per team also carefully supervised child weighing and measuring. They ensured that scales and height boards were always on a flat surface, and that instruments were properly calibrated. (For more information about the KPC survey, refer to the Survey Report in Annex 2.)

2. Health Facility Assessment (HFA)

The objective of the Health Facility Assessment (HFA) was to determine the general status of the health delivery infrastructure, which plays a major role on the quality of health services offered. The HFA was developed and designed by IEF in partnership with the Nsanje District Health Management Team (DHMT). Pre-assessment qualitative and quantitative information was collected at a health center in adjacent Chikwawa District to assist in developing the HFA. The survey was also pre-tested in Chikwawa before being used in Nsanje. Members from the CSMC reviewed the assessment, providing comments and suggestions. Several members of the CSMC also participated in data collection. Heavy work schedules and responsibilities restricted CSMC members, however, from fully participating in the data analysis process.

The topic areas covered in the questionnaire included: general facility information, staff information, relationship of health center to HSAs and communities, training, outpatient department, inpatient services, laboratory, stores management, nutritional issues, IEC/BCC, transportation and communication, supervision, referrals and client flow, and reporting (technical and financial). The questionnaire was 18 pages long and took approximately 90 minutes to complete.

Nsanje District has one District Hospital, one mission hospital, two health centers funded by the Christian Hospital Association of Malawi (CHAM), nine health centers run by the government, and eight health posts. The assessment was conducted in the 11 health centers and two hospitals. The Nsanje District Hosptial (NDH) is staffed by Clinical Officers, an Administrator, Medical Assistants, and Health Assistants. Health centers (HCs) are typically staffed by a Medical Assistant (MA), an Enrolled Nurse (EN) and Health Surveillance Assistants. These were the cadres of staff that were interviewed during the assessment in order to capture diverse from each health facility.

It took ten days to complete the assessment. There were no major constraints associated with data collection. To maintain high quality collection, each team had a team leader who thoroughly checked each questionnaire before leaving the health facility. (For more details on the HFA, refer to Annex 3.)

3. Community Assessment of VHCs, HSAs, and GMVs

The objective of these assessments were to find out how Growth Monitoring Volunteers (GMVs), Health Surveillance Assistants (HSAs), and Village Health Committees (VHCs) were chosen/ formed, trained and supervised. The assessment also explored the relationship that health workers have with their communities, health volunteers, and health services. The purpose of the assessment was to confirm anecdotal reports of a lack of health volunteers, a lack of VHCs, a lack of initial and refresher training, and a lack of supervision.

The assessment took two days to complete. Ten villages were randomly selected from the district's six zones. From these ten villages, ten VHCs, six GMVs, and nine HSAs were found and interviewed. (For more details on the Community Assessment, refer to Annex 4.)

Comparison of Baseline Assessment Data with Current Country Context

Seventy-eight percent of the population have access to clean water, a figure higher than the national average estimated at 52%.[7] The quoted national figure is now ten years old. The situation in Nsanje also compares much higher than most other rural areas (44%).[8] However, most of the water supply comes from protected hand pumped boreholes and wells. Only 5.4% of the population has piped water.

Practically all women breastfeed their children, with only one out of 299 stating that she never breastfed her last child. This compares well to the national figure of 98%.[9] The percentage of exclusive breastfeeding was 55% among children 0-5 months compared to 63% among children 0-4 months in the MDHS.[10] This is below the national figure, however, and therefore needs to be strengthened. A total of 71% of the mothers report putting the newborn baby to the breast within the first hour after delivery and practically all (92%) appear to have given colostrum to the baby. The underweight rate is high (39.4%) among children 0-23 months of age (23.6% -2 SD and 15.7% -3 SD). The malnutrition rate is highest in the second year of life. It is higher than the national figure of 25% (DHS).[11] The rate of malnutrition is similar to that reported in 1998 (37%).[12] The reported infant feeding appears fairly good, but the weaning practices are not adequate resulting in children not getting enough food required for normal growth and development. The project will work to identify cultural and traditional practices that affect

[7] Malawi Situational Analysis of Poverty, 1993.
[8] The State of the World's Children Table 3. (Internet Site) 2003.
[9] Malawi Demographic and Health Survey (DHS). 2000. Pg. 126.
[10] IBID., pg. 127.
[11] IBID .,pg 138.
[12] Nsanje District Profile, Malawi Government, July 1998.

exclusive breastfeeding and weaning practices. Such a study will assist in developing appropriate BCC messages that will help to improve nutrition practices and reduce the rate of malnutrition.

Immunization data from the district health office estimated a complete vaccination rate of 37%, underestimating the actual KPC survey rate of 63%. The KPC result compared well to the 64% coverage rate found in the national demographic and health survey of 2000. However, the immunization coverage is lower than the World Summit for Children target of 90%.[13] The immunization drop out rate was found to be 12% for DPT in the KPC survey, which is consistent with the national figure of 12%.[14] However, district data had a very high dropout rate of 42% for DPT and 21% for OPV. This clearly demonstrates the need to strengthen the district's heath information system. In addition to this, the project will also strengthen the organization of immunization activities to increase coverage rates towards national targets.

Logistical constraints are identified as the greatest problems to achieving higher immunization coverage in the district. The district is divided by the Shire River. This creates a natural hindrance to movement as there is no bridge across the river. Some villages are totally cut off from the rest of the district all year round and can only be accessed by an eight hour journey. Access to many other villages is furthered worsened during the rainy season. Moreover, there are insufficient personnel and transport for use by the district. Regardless of the physical barriers, the project recognizes that better planning can address many of the logistic problems. The project will therefore assist the district to plan activities to take advantage of the dry season when more villages are accessible.

The HFA revealed that all the health facilities have the majority of the required cold chain equipment. However, about a quarter of the refrigerators were reported to be non-functional for an extended period in the last six months, while one out of the 13 were not functioning at the time of survey. The greatest cause for refrigerators not functioning is lack of fuel. The project will improve the planning and logistics skills of the CSMC to ensure an adequate supply of fuel. None of the facilities visited had a maintenance plan in place and only two centers had someone trained in cold chain maintenance. In two cases, neonatal tetanus was treated in the health facilities during the previous six months, reflecting the need to increase TT vaccination coverage. The district data for 2002 shows only 71% of the pregnant women received TT2 or more.

Mothers of over half (55%) of the children in the survey with diarrhea reported giving ORS or home fluid during the diarrhea episode. This compares to national figure of 62%,[15] and is lower than the UNICEF estimate of 70% coverage.[16] This data demonstrates the need to improve caretaker practice in the home. At the same time, however, about three quarters of mothers in the KPC survey reported giving increased fluid during the episode of diarrhea. This may indicate that mothers have the knowledge to treat their children, but do not have access to ORS packets, or do not know how to prepare home fluids. The project will strengthen a system to

[13] DHS, pg 128.
[14] IBID., pg.114
[15] DHS; pg.121
[16] The State of the World's Children. 1999

make ORS packets available in the villages while continuing to reinforce mother's knowledge on preparation of other home based fluids to administer during diarrhea episodes.

Acute respiratory infections pose a threat to the life of a young child. Almost half of the children in the KPC survey had cough in the two weeks prior to the survey. Of the children who had a cough, almost half (45%) were reported to have had difficulty in breathing. This is well above the findings of the MDHS. However, the MDHS figures were aggregated in a six-month interval and generating an average of 27% for all children less than five years of age. In the KPC survey, a higher percentage (67%) of the mothers sought treatment from a health facility compared to 27% found in the MDHS. Although mother's knowledge and practices are encouraging, the project will continue to improve the quality of services to reinforce family's perception that health facilities can provide the emergency services needed to treat ARI. A total of 3,591 pneumonia cases were treated in children less than five years in the health facilities in the project area in a six-month period.[17] This highlights a priority problem in the district, requiring supportive resources.

Malaria remains a common illness in Nsanje District. The HFA assessment identified malaria as the most common cause for attendance in the outpatient departments, closely followed by diarrhea. (Refer to Annex 3.) Malaria accounts for 18% (1077/5953) of total admissions in the health facilities in a six-month period (July – December 2002).[18] The Shire River, flowing the length of the district, provides a year-round breeding ground for mosquitoes. Sixty-one percent of children in the KPC survey reported a fever in the past two weeks. The MDHS found a reported rate of fever in 49% of children between one and two years, and 46.6% among children less than one year. The rate of reported fever in Nsanje is much higher than the national figures probably due to the environmental features in the district.

Only a small proportion of the mothers (29%) own mosquito nets. However, it is encouraging to note that 71% of the people that own a net reported that their youngest child slept under the net the night before the survey. Overall, only 17% of the children surveyed slept under a mosquito net the night before the survey, likely due to the lack of access to the bed-nets. A net distribution program was recently introduced to the district in 2003. Increasing the supply of ITNs and promoting their use will be addressed by the project. Intermittent treatment of nets with Sulphodixine Pyremithamine (SP) anti-malarial is a standard practice in the district. Three quarters (75%) of the mothers in the KPC survey reported receiving SP during their last pregnancy. This is higher than the 67% rate reported in the MDHS. A total of 7,640 pregnant mothers received their 2nd dose of SP out of a total of 6,090 total new antenatal care visits recorded during the period.[19] This shows good coverage. The project will, however, work to expand the coverage by training TBAs to refer mothers to receive Intermittent Presumptive Treatment (IPT) from the nearest health facilities.

HIV/AIDS awareness is high in Malawi and also in Nsanje district. Data from the MDHS showed 99% of the women have heard of HIV/AIDS compared to 93% in Nsanje District. However, not surprisingly, there is a large knowledge-practice gap resulting is the high national

[17] Nsanje District Surveillance Data: July – December 2002 (Unpublished)
[18] IBID.
[19] IBID

HIV infection prevalence rate of 14%.[20] To improve prevention practices, the project will introduce behavior change communication strategies to design and target interventions to specific behaviors. Of the numerous constraints to practicing safe behaviors, many are deeply rooted in cultural practices. Nsanje has a culture of "cleansing women" after the death of a husband. This entails a male member of the family sleeping with the surviving woman. In this case the spread of HIV/AIDS is propagated. Such cultural practices will be identified through the program and adequate messages developed to help the individual and the community develop culturally acceptable responses. In a six month period, a total of 159 cases of AIDS were diagnosed clinically followed by laboratory testing in the district.[21] Another 603 persons participated in VCT activities.

The HFA consistently identified a lack of supervision to all health workers as a major weakness in district management. There is little or no supervision done except routine clinical visits to attend to sick patients. The average duration of visit made by the district to a health center is one and half hours. The project will provide training to the CSMC on supervision as a priority activity. IEF believes, in fact, that the success of the project depends on providing consistent and effective supervision to all health workers.

In 2000, the infant mortality rate (191/1,000 births) and under-five mortality rate (385/1,000) in Nsanje district was the highest in the nation (national averages: 134/1,000 and 234/1,000, respectively). Between 1992 and 2000, the national maternal mortality rate increased from 1.4 deaths/1000 to 2.4/1000, while the maternal mortality ratio increased from 620/100,000 to 1,120/100,000 (maternal deaths per live births).[22] In the southern region of Malawi the birthrate is 6.0.[23] Pneumonia is reported to be the leading cause of death in young children (28% is the national prevalence rate). Diarrhea is another leading cause of death, affecting 17% of children under five years-of-age in southern Malawi.[24] HIV/AIDS statistics are also grim, with 65,000 children under 15 years-of-age infected, and AIDS contributing up to an estimated 50% of under five mortality in some areas.[25]

Nsanje is one of the poorest rural districts in the nation, characterized by limited employment opportunities compared to other districts. Most inhabitants are subsistence farmers or fisherman, the majority of whom live below the poverty line (owning less than .5 hectare of arable land). Only 15% of arable land is cultivated due to persistent drought and lack of irrigation systems. Women are the primary care takers of children and produce much of the food supply. The literacy rate in Nsanje is reported at 27% and thought to be lower for women.[26] The KPC survey demonstrated a 30% literacy level among mothers. This has negative implications as education levels have a direct link to health knowledge and health-seeking behaviors in Malawi.[27] The low levels of literacy also have implications on how the district designs educational interventions and

[20] National Aids Strategic Framework.
[21] Nsanje District Surveillance Data: July – December 2002 (unpublished).
[22] Nsanje District Profile, Malawi government, July 1998.
[23] DHS, pg. 41.
[24] IBID, pg. 99.
[25] Afro-nets. 1997. "AIDS and Child Health."
[26] Nsanje District Profile, Malawi Government, July 1998.
[27] DHS, pg 52.

trains community health volunteers. The majority of the population is Christian (70%), and the predominant ethnic groups are Manganja (60%) and Sena (30%).

MOH Objectives and Strategies to Reduce Child Morbidity and Mortality

Project planning is consistent with the eight primary objectives of the 1999-2004 Malawi National Health Plan (NHP), as illustrated below:

1. Expand the Range and Quality of Health Services Focused on Maternal Health and Children Under Five Years of Age

A high rate of child morbidity and mortality is identified as a priority problem in the 1999-2004 NHP. The plan describes HH/C IMCI as the national strategy to resolve child morbidity and mortality. It is hoped that HH/C IMCI will improve service delivery and resolving problems associated with many of the previous vertical health services. The following HH/C IMCI activities are identified in the NHP:

- Conduct integrated training sessions and refresher courses for health workers on lactation management, child nutrition, malaria case management, EPI and ARI case management
- Conduct integrated initial and follow up training sessions for growth monitoring volunteers/health workers on childhood nutrition, breastfeeding, malaria control, and ARI case management
- Train health workers and HMIS staff on the management of HH/C IMCI data
- Conduct training for health workers on epidemic preparedness (using available WHO modules)
- Conduct sensitization of community members, political leaders, religious leaders on HH/C IMCI strategy and disease control campaigns
- Conduct quarterly supervisory visits to all health facilities and health service implementation points in the community
- Conduct quarterly inspections of iodine levels in salt at entry points and salt trading centers.
- Conduct quarterly hospital assessments for designation of Baby Friendly status
- Develop, implement and monitor the national code of marketing for breast milk substitutes
- Conduct meetings with community leaders to form support groups for HH/C IMCI implementation
- Carry out periodic surveys to measure progress of HH/C IMCI targets and the impact of other adopted strategies
- Strengthen routine HH/C IMCI morbidity, mortality and management data collection through the HMIS strategy
- Conduct an evaluation of the HH/C IMCI strategy
- Implement a breastfeeding week once a year

A second strategy identified to achieve objective one, is to strengthen reproductive health services. The activities involved include improving access to quality maternal health services and strengthening the system for contraceptive distribution and information management. A

reduction in the incidence of HIV/AIDS and other STIs is also identified as a crucial strategy. The following activities are identified in the NHP:

- Train health workers and volunteers on HIV/AIDS and Home Based Care (HBC)
- Implement a 'personal responsibility' campaign in organizations and government to promote HIV/AIDS prevention for all employees.
- Implement community-based HIV/AIDS prevention activities
- Adopt syndromic management of STIs in all health centers
- Procure adequate STI drugs and condoms
- Procure HIV testing equipment and reagents
- Supply drugs to treat AIDS-related opportunistic infections
- Train counselors
- Establish a room for voluntary counseling and testing (VCT)
- Provide VCT

Specific targets identified are:

a. Reduce the prevalence of underweight children (0-5 years) from 14.4% to 12%.
b. Reduce the maternal mortality rate from 507 to 490 per 100,000 live births
c. Reduce the infant mortality rate from 194 to 180 per 1,000 live births.
d. Reduce the under-five mortality rate from 229 to 200 per 1,000 births.
e. Increase the percentage of pregnant women who deliver in health facilities from 52% to 65%.
f. Increase the contraceptive prevalence rate from 25% to 30%.

2. *Improve the General Health Status of the Population by Strengthening Relevant Health Services*

The activities involved in this strategy to reduce morbidity and mortality from common child health diseases are the following:

Malaria: Required activities identified are maintaining a constant supply of antimalarial drugs to all health facilities, intensifying IEC on environmental health, and orienting volunteers to ITNs.

ARI: Activities identified are training sessions for health workers on ARI case management to reduce ARI mortality by 10% by the year 2004.

Diarrhea: Activities identified are refresher trainings for health workers on the management of cholera and other diarrheal diseases. In addition, the MOHP aims to strengthen the procurement and distribution of anti-diarrheal and cholera supplies to health facilities, as well as to sustain a system of routine reporting on cholera and diarrheal disease. The defined target is that by 2004, all health facilities should have fully functional ORT units, and strengthened surveillance capacity to promptly detect cholera and other diarrheal diseases. The specific target is that diarrheal episodes in children under 5 years of age should be reduced from 396 to 250 cases per 1,000 children.

Reducing the prevalence of diseases from contaminated water, unsanitary conditions, and improperly managed waste are also identified in the NHP. Specified activities include:

- Conduct in service training to health worker on water sanitation and waste management
- Collaborate with the District Assembly to develop guidelines for proper waste management and disposal and implement guidelines
- Strengthen multi-sectoral collaboration in the promotion of food hygiene and quality
- Collaborate with the District Assembly and other stakeholders on the regulation of commercial and public premises
- Conduct regular hygiene and sanitation inspections on public premises where food is prepared

To reduce the morbidity and mortality of the six preventable childhood diseases, the MOHP identifies proper vaccination for all children before their first birthday, improved monitoring of the cold chain, and improved District supervision.

Specific Targets:

a. By 2004, all health facilities have an "*Epidemic Prepared Committee*"
b. By 2004, vitamin A deficiency is eliminated
c. By 2004, immunization coverage increased from an average of 82% to 90%

To reduce the prevalence of malnutrition, the NHP recognizes the need to train Growth Monitoring Volunteers (GMVs) on childhood nutrition, and to improve supervision of GMVs.

3. *Increase Access to Health Care Facilities and Basic Health Care Services*.

Primary health care will be strengthened by sensitizing communities of their responsibility to recognize disease, seek early treatment, and undertake preventative behaviors. Timely procurement and distribution of drugs and medical supplies, as well as improvements in the referral system are also recognized as required activities.

Specific Targets:

a. By 2004, number of health posts in the District has increased from eight to nine
b. By 2004, number of Bakili Muluzi Health Initiative Centers (providing free drugs) in the District has increased from 7 to 12

4. *Provide Better Quality Health Care in All Health Facilities*

Re-orienting and training health workers in quality assurance programs are the main activities listed for this objective.

Specific Targets:

a. All health care providers receive refresher training
b. By 2004, all health facilities have a functioning waste disposal system
c. By 2004, all health facilities have a functioning communication system
d. By 2004, all health facilities have a functioning water system

5. ***Increase, Retain and Improve the Quality of Trained Human Resources, and Distribute them Efficiently and Equitably***

This objective will be achieved through planning, epidemiological, and financial management training.

Specific Target:

a. Health workers trained in planning, epidemiological and financial management.

6. ***Improve Efficiency and Equity in Financial Resource Allocation.***

This objective will be achieved by implementing a decentralized health care management system, and strengthening the management, storage, and distribution of drugs and medical supplies.

Specific Target:

a. By 2004, the Nsanje DHMT will maintain efficiency and equity in financial resource allocation

7. Strengthen Collaboration and Partnership between the Health Sector, Communities, Other Sectors (i.e. Local Government and Tourism), and Private Providers (Allopathic and Traditional)

This objective will be achieved by strengthening Information, Education and Communication (IEC). The activities described are to collaborate with other sectors to identify target groups to be reached with specific health messages, and to produce messages of disease prevention and control for front line workers of other Ministries (e.g. Agriculture, Education, Gender/Youth/Community Services, Water, etc.).

Specific Target:

a. By 2004, better quality services instituted.

8. Increase Overall Resources in the Health Sector and Allocate them Efficiently and Equitably

This objective will be achieved by establishing cost recovery mechanisms.

Specific Target:

a. By 2004, introduce cost recovery mechanism at all health facilities.

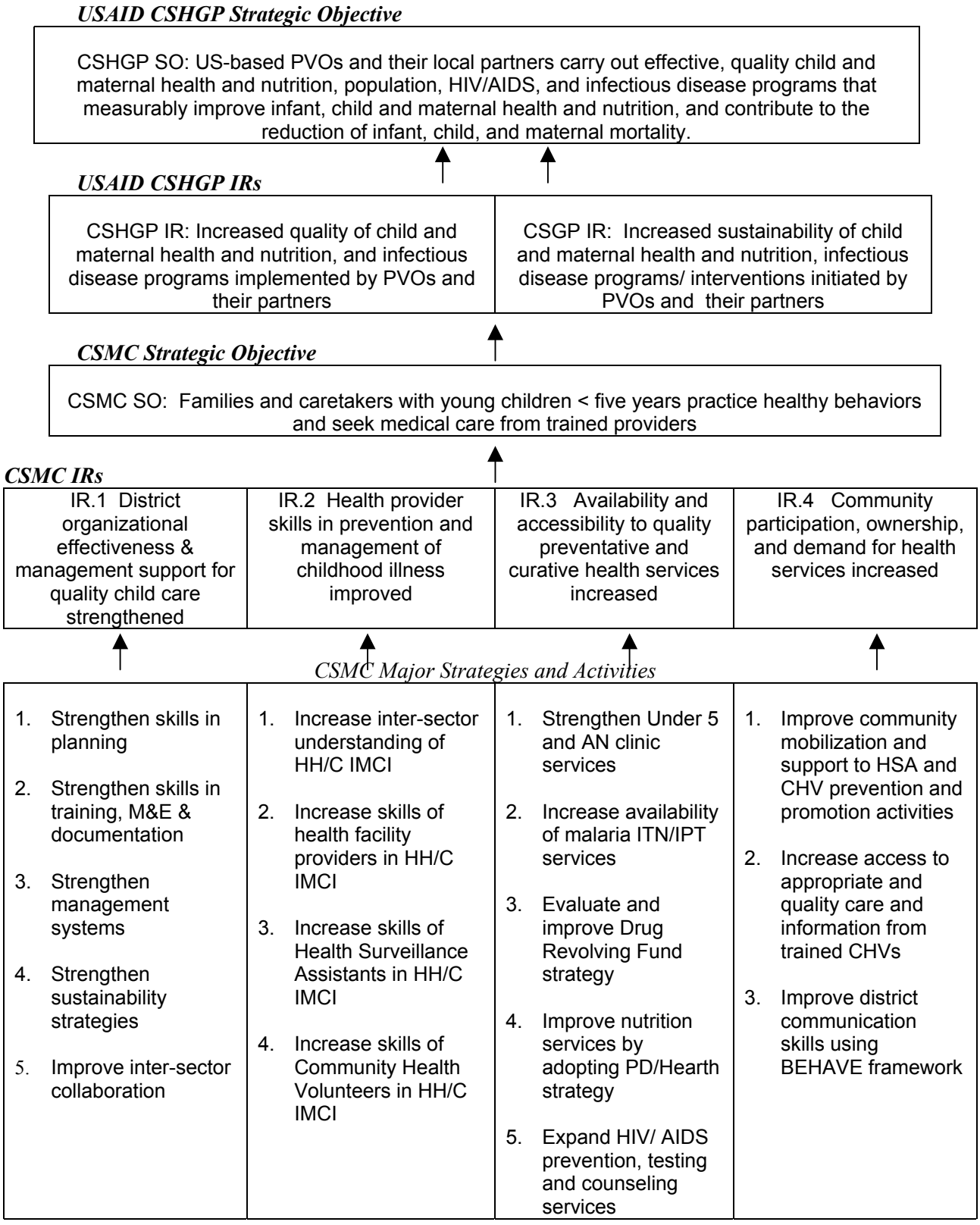
E.3. PROGRAM DESCRIPTION BY OBJECTIVE, INTERVENTION AND ACTIVITES

The following CSMC Results Framework (following page) describes the overall framework of the project, including how it directly supports two of USAID's Child Survival and Health Grants Program's Intermediate Results as well as its overall Strategic Objective.

The project is supportive not only of USAID CSHGP objectives, but also of USAID Malawi Mission's Strategic Objective No. 3, which states: Behaviors Adopted that Reduce Fertility and Risk of HIV/AIDS and Improve Child Health." *It is also consistent with the Malawi National Health Plan for 1999 – 2004.*

This following section is organized as follows: First, a description of the overarching Integrated Management of Childhood Illness Strategy is presented. Implementation at the health facility level, the system (or district) level, and the family and community level is discussed. The components necessary to facilitate HH/C IMCI implementation at each level are included in the discussion. Following HH/C IMCI, each intervention is discussed, starting with a situational analysis of what the current situation is, followed by a description of proposed project strategies and activities necessary to achieve the intermediate results and overall goal of the project.

Figure 1 – Results Framework



3.A. INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (HH/C IMCI)

The Ministry of Health in Malawi recognizes Integrated Management of Childhood Illness (IMCI) as a national strategy.[28] A National HH/C IMCI Taskforce spearheads the initiative in the country and consists of three working groups, namely: Family and Community HH/C IMCI Working Group; Adaptation Working Group; and an HH/C IMCI Introduction Working Group. This project will officially implement HH/C IMCI for the first time in Nsanje, thus increasing the number of districts practicing HH/C IMCI in the country. To date, no significant HH/C IMCI activities have taken place in Nsanje. The project recognizes HH/C IMCI as overarching strategy, as well as an intervention-specific technical guide, to reduce child morbidity and mortality.

Facility-based and community-based IMCI are seen as mutually reliant and beneficial in this project. Health personnel will help stimulate community demand for services by improving the quality of services offered, as well as by improving the ability to reach out and orient villages to health services. At the same time, communities will promote the use of services to caretakers and contribute to the management of health facilities by providing community health data. This data will be used to plan activities, make decisions, and promote services.

The role of the child survival project in the national HH/C IMCI plan will be to introduce the three elements of HH/C IMCI as the strategy to improve child health in Nsanje District, namely:

1) Improve household and community practices to prevent and manage childhood illness in the home and community and to seek preventive and curative care when necessary;
2) Improve the case management of sick children presenting to district outpatient facilities by training health workers to use an integrated case management algorithm;
3) Improve the health system supports needed to provide high quality case management to children coming to health facilities (such as supply of essential drugs, vaccines, equipment and supplies, fleet management, financial management, regular high-quality supervision, etc.).

Implementing facility and community-based IMCI in Nsanje District will help achieve the project's goal, that families and caretakers with young children increase the practice of healthy behaviors and seek medical care from quality sources. Taking lessons learned from IEF's implementation of HH/C IMCI in neighboring Chikwawa District, HH/C IMCI implementation provides advantages that affect clients, children and their caretakers, and service providers.[29] For example:

[28] Henceforth, IMCI is referred to as Household and Community IMCI (HH/C IMCI) to be consistent with the new standards and definitions.

[29] HH/C IMCI Working Group and Expanded District Health Management Team. 2000. "Integrated Management of Childhood Illness- Baseline Assessment for Chikwawa District." (Chikwawa, Malawi). Pg. 32-33.

- Less children need to return because their condition was not properly managed during the first consultation
- Less children return because a second infection or illness was overlooked during the first consultation
- Less children present with complications or with severe/advanced stages of a disease, and less children require referral
- Early detection of severe conditions increases the likelihood of successful treatment and better prognosis

These benefits clearly outweigh the need for more time to be spent with the sick child during the initial visit. Improved counseling of caretakers will contribute to:

- A better understanding of childhood illnesses, prevention and control by mothers
- Improved ability to identify danger signs and seek treatment
- Increased compliance on the administration of medication at home and home management in general
- Improved compliance with follow up requirements
- Reduction and prevention of malnutrition among children as a result of exclusive breastfeeding promotion until six months, the introduction of complimentary feeding at six months and continued breastfeeding until two years of age

Advantages for health workers include:

- Encouragement and promotion of team work with a more equitable distribution of workload and better coordination between team members
- Empowerment of nurses and support staff through training to take on greater responsibility
- Increased positive feedback from caretakers and district supervisors as fewer children return with complications/severe illness and more are cured, resulting in increased job satisfaction

Use of HH/C IMCI algorithms will strengthen quality assurance and improve overall service delivery in the district. (Refer to Section A.2 for more details on Performance Improvement). Lessons learned and best practices from the project will be shared with the HH/C IMCI Multi-sectoral Task Force and other child survival projects in Malawi.

3.A.1 Establishing HH/C IMCI at the Health Facility Level

The first component of the three-tiered HH/C IMCI strategy is addressed at the health facility level, involving clinical officers, medical assistants, and nurses. The project will improve the training and supervision of health facility staff. All training will be based on the approved National HH/C IMCI Strategy, following the HH/C IMCI modular approach to childhood illness. The case management process is described by six essential steps for each child, namely: assess the infant or child, classify the illness, identify treatment, treat the infant/child, counsel the mother, and provide follow-up care.

Nsanje District has one District Hospital, one CHAM (Christian Hospital Association of Malawi) hospital, three CHAM health centers, eight district health centers, and eight district health posts. While the district does not have jurisdiction over the CHAM health facilities in administrative terms, it does have control of technical matters. As such, all CHAM facilities are supervised by the district and comply with district standards and protocols.

The breakdown of health facility staff in Nsanje District can be seen in the Table 1.

Table 1: Health Personnel in Nsanje District.

Title	Function	Total No. in Nsanje District
Medical DOct.or	Responsible for providing primary curative health care at hospitals	**Total: 2** (1 MOHP; 2 CHAM)
Clinical Officer	Responsible for providing primary curative health care at health centers and/or hospitals	**Total: 10** (10 MOHP)
Medical Assistant	Responsible for overseeing all health center activities – e.g. administration, finances, management, and provision of services	**Total: 4** (3 MOHP; 1 CHAM)
Environmental Health Officer	Responsible for all public health activities in district	**Total: 1** (1 MOHP)
Nurse - Enrolled Nurse Midwives - Community Health Nurse	Responsible for service provision, namely: antenatal and maternity services, preventative care (hygiene and sanitation issues, immunization), curative care (treatment of common diseases), & family planning.	**Total: 35** (28 MOHP; 7 CHAM)
Environmental Health Assistant	Responsible for supervision of community HSAs and all environmental health issues	**Total: 3** (3 MOHP)
Health Surveillance Assistant (HSA)	Responsible for linking HCs to community by providing supervision of & support to community volunteers, community health talks, meeting with village health committees (VHCs), household inspections, data collection, disease surveillance and control.	***Total: 187*** (185 MOHP; 2 CHAM)
Lab Technician	Responsible for all lab analysis (urine, TB, malaria, etc.)	**Total: 3** [MOHP: 2; 1 CHAM]
Patient Attendant	Administers food and/or medicine to patients	**Total: 8** (8 MOHP)
Hospital Attendant	Responsible for cooking and cleaning.	*Total: 62* [62 MOHP]

Results from the Health Facility Assessment (HFA) reflect a lack of qualified staff at health facilities. The National HH/C IMCI program and the standards recommended by the World Health Organization (WHO) suggest that 60% of all health workers for each health facility providing care for sick children should be trained in HH/C IMCI. In Nsanje District, all 55 clinical health care providers involved in outpatient services for children will be trained on facility-based IMCI. They will also be introduced to the concept of community-based IMCI in

order to understand how integrated HH/C IMCI functions. HH/C IMCI training will take a total of nine days to complete. As success of the program depends on changing attitudes and behaviors, HH/C IMCI training will stress the key project behaviors that must be communicated through all health facility personnel.

Facility based IMCI training will be conducted by three trained facilitators in the district, namely, the Project Manager, the IEF HH/C IMCI Coordinator, and the Nsanje District HH/C IMCI Coordinator. They will participate in a refresher Training of Trainers course. The materials to be used will be the HH/C IMCI training curriculums and algorithms originally developed by the World Health Organization's Division of Child Health and Development and UNICEF. These materials have been adapted for use in Malawi by the MOHP.[30] Materials and tools modified for use in Chikwawa by IEF will also be used in Nsanje District. Training on standard case management will include diagnosis and guidance on drug treatment through summary tables on first and second line drug treatment, including dosages, frequency and duration. (For a complete timeline of project training activities, refer to Annex 9.)

The District MCH Coordinator and IEF's MCH Coordinator will be responsible for overall implementation and supervision of PD/Hearth nutritional rehabilitation sites in Nsanje District. In order that they be adequately trained, the MCH Coordinators will first receive formal "theory" training on the PD/Hearth Model. This will be followed by "hands on" training through a three-day exchange visit to Save the Children's PD/Hearth sites in Mangochi District. The Coordinators will learn firsthand about PD/Hearth nutritional rehabilitation sites in order that they be able to transfer knowledge and build skills among health personnel and community volunteers in Nsanje District .

HH/C IMCI job aids will be developed to facilitate case management (e.g. registers for paediatric outpatient consultations, tables and posters of flow-charts, drug regimens, etc.). Registers developed by the Blantyre HH/C IMCI team (as part of IEF's Community Health Partnerships Project in Chikwawa District), and job aids created by the Senior Medical Assistant working at Makhwira Health Center in Chikwawa, will be used as examples of possible support materials.

One of the benefits of HH/C IMCI is that it fosters an environment of increased teamwork. HH/C IMCI involves nurses as full service providers and includes support staff for specific tasks. The 55 health facility staff trained in HH/C IMCI will be responsible for conducting "in-house training" for the support staff working at each health unit. In order to deal with patient flow, and time constraints, a common problem with successful HH/C IMCI integration- tasks will be delegated to support staff, namely Attendants (Patient and Hospital) and HSAs. These staff will be trained to perform specific tasks under the HH/C IMCI protocols. Such tasks will include:

- Registration of children upon arrival
- Measurement of weight and temperature, possibly also the respiration rate in children with cough

[30] Generic modules specifically adapted for Malawi by the Ministry of Health and Population- Second Edition, October 1999.

- Checking of child health cards and identification of immunizations missing, children with very low weight for age or growth faltering
- Triage of emergency cases in the waiting queues and areas
- Administration of first doses of drugs prescribed and teaching of mothers on how to give oral medications and how to treat local infections at home
- Individual counseling on follow-up requirements and feeding advice
- Establishment and supervision of an ORT (Oral Rehydration Therapy) Corner for observation of children with diarrhea, teaching of mothers on the preparation of ORS
- Pre-packing of drugs or issuing of drugs by a staff member who is not the prescriber

The implementation of clinical HH/C IMCI will require health facility staff to work as a team to achieve an 'holistic' approach to the treatment of childhood illness. While guidelines for overall HH/C IMCI implementation at the district level exist, health centers will be encouraged to develop their own 'action plan' for HH/C IMCI implementation. Planning at each health center will allow factors particular to each unit to be taken into account, such as the number and qualification of current staff, the daily workload of the center, and other constraints. The entire health center team should be involved in planning to generate a sense of cooperation and ownership. The action plan will facilitate self-assessments by the health center team to compliment routine district monitoring.

The monitoring and evaluation skills of Environmental Health Assistants at health centers will be strengthened to improve supervision of HSAs at the community level which will, in turn, impact the quality of supervision of community-based volunteers and VHCs. In the first year of the project, the three Health Assistants in the district will receive comprehensive training on HSA supervision. Also in the first year, 90 community-based HSAs will be trained to properly recognize danger signs, counsel caretakers, and/or refer ill children with the use of job aids. They will also be trained on supervision responsibilities to strengthen the monitoring of community volunteers. Each HSA is responsible for covering an area that is home to 2,000 people. At a minimum, HSA responsibilities will include the following:

1) Conduct Participatory Rural Appraisals once a year to include:

    - Discussing of roles and responsibilities of VHC, GMVs, TBAs, and HSAs in village
    - Creating of village map (including the identification of groups and organizations in the community and their relationship and importance for decision-making)
    - Characterizing village problems and making a ranking chart (i.e. identification of perceptions of the 10 most important health and social problems faced and exercises in ranking and priority setting)
    - Forming a seasonal calendar (i.e. identification of seasonal trends in the community and their relationship to health problems and health services)
    - Tabulating of village water points
    - Registering total population

2) Supervision of community volunteers and ensuring GMVs have vitamin A and ORS, & that TBAs have iron tables
3) Organization of community events (e.g. vaccination campaigns)

4) Assisting in vaccination and growth monitoring practices
5) Participating in PD/Hearth nutrition rehabilitation activities
6) Updating community roster of children under five on a monthly basis
7) Providing health communication on basic information from key behaviors (e.g. breastfeeding, complimentary feeding, VA, referral for malaria and pneumonia, etc.)
8) Serving as a liaison between health facility and villages

In theory, HSAs have a carrier bag that contains a checklist diary, ORS, eye ointment, Fansidar, aspirin, and Albendazole. The project will strengthen the logistics and supply system to ensure that all HSAs have basic supplies. The project will also provide training for HSAs to establish high quality immunization, infection prevention, data recording, HH/C IMCI-based BCC counseling, and volunteer supervision in communities. Training for HSAs and HAs and other government extension workers will be based on a new national tool entitled "Key Family and Community Childcare Practices.".[31] The framework has key care practices, recommended behaviors, current situation statistics, encouraging and inhibiting factors, key messages, advantages of the key care practice; disadvantages of not following the key care practice and action points. In addition, it has an introduction and objectives of each unit's key care practice. This tool will also be used to train other extension workers (such as Community Nurses, Community Development Assistants, Social Welfare Assistants, Agricultural Assistants, Teachers, and others).

An assessment of HSA training outcomes will be conducted after training the first group of HSAs in the South Zone and Boma Zone. Results from the assessment will be evaluated and improvements made, if necessary, to train the remaining HSAs in the other four zones. Refresher training for all HSAs will be provided in the third year of the project. (For a complete timeline of project training activities, refer to Annex 9.)

Overall, the implementation of HH/C IMCI will strengthen the performance of MOHP health workers at all levels to assess, classify, treat and counsel caretakers of children under five years of age. Improving child services at health facilities will help to reduce childhood morbidity and mortality.

3.A.2 Establishing Capacity for HH/C IMCI at the District/Health System Level

The main challenges of HH/C IMCI implementation in Nsanje relate to the district's weak skills in planning, training, administration, budgeting, and supervision. IEF will draw on its success in strengthening the health system in Chikwawa District. The main objective of the CHAPS (Community Health Partnerships) project in Chikwawa which ended in late 2002, was to improve the DHMT's (District Health Management Team's) capacity for training, supervision, financial, administrative and logistics planning, and health communication. With the same goal, IEF will work with the Nsanje DHMT (referred to in this project as CSMC – Child Survival Management Committeee) to maximize resources for improved health service delivery.

[31] Malawi MOHP. 2003. Key Family and Community Childcare Practices.

Training at the District Level

Improving health worker performance on all levels, as well as improving community mobilization and health behaviors, will be a key to achieving project success. Training, the first step in reorienting practice is a major component of the project. Lessons learned from neighboring Chikwawa District have been used to help shape the training plan for Nsanje. IEF learned in Chikwawa, for example, that the district did not initially have the capacity to implement sustainable training, and that results in training health worker performance after training were not known. Efforts in Nsanje District will focus on identifying gaps in the district's capacity to provide training. These deficiencies will be resolved by improving and/or establishing basic training organization, training methods, refresher courses, and supportive supervision. A system for documenting training results will also be established.

Training in Nsanje District is carried out on an adhoc, irregular basis. Systematic training with regular refresher courses for health personnel does not exist. The first training workshops for the CSMC will focus on strengthening the district's capacity to provide and support sustainable training. A workshop on adult learning styles, learning skills and teaching methods to facilitate learning will be offered to the CSMC. An introduction to HH/C IMCI training will then be offered to the CSMC. A comprehensive training on zonal supervision, including improvements in routine monitoring and evaluation processes will follow. Subsequent capacity training for the CSMC will include training in quality assurance (QA), performance improvement (PI), the BEHAVE framework, PD/HEARTH training, community mobilization and communication strategies, pharmacy and budget software systems, and business planning (for the cost ward and optical shop).

HH/C IMCI will provide the principal framework for training to occur in the district, aside from training on QA/PI, the BEHAVE Framework and the PD/Hearth Model. A district training team will be established to review and/or develop HH/C IMCI-based job descriptions for HSAs and community health workers, namely TBAs and GMVs. The core training team will be responsible for reviewing the training curriculums for HSAs and community health volunteers. The Malawi HSA training manual and materials will be modified to ensure that all HH/C IMCI components are included in HSA training. Similarly, community volunteer training materials developed by other PVOs, namely Freedom From Hunger and Project Hope, will be assessed for adaption and use in Nsanje District to train community level GMVs and TBAs. These materials will be compared with HH/C IMCI materials developed by the MOHP for other cadres of workers.

Development and revision of curriculums will be undertaken in a spirit of teamwork, involving input from a variety of sources. To ensure a multi-sectoral approach, extension workers from other ministries, such as Gender, Youth and Community Services, Education, and Agriculture and Irrigation, will be trained on the project's BCC messages in order that they be able to integrate the messages into their daily work, thus supporting the work of the GMVs and TBAs. Training materials developed by the National HH/C IMCI Taskforce will be used to train the extension workers. These tools were recently field tested in April of 2003 and are expected to be ready for use by the third quarter of 2003.

In addition to revising training curriculums, the training team will be responsible for reviewing training assessments and making suggestions for improvement. A series of assessments will be undertaken after each training session to identify problems and improve training methods. Recommendations made by the training team will be shared with the CSMC and implemented in subsequent trainings to scale up activities. To reduce possible gaps that may exist between curative and preventative trainings, and to strengthen overall training monitoring, a simple system will be established at the district level. Descriptions of training schedules, activities, and criteria for participant selection will be recorded in a 'training log' at the NDH. Changes in curriculum or training practices will also be recorded in the log at the NDH to ensure knowledge retention of 'best practices'. In order to improve training documentation, personnel rosters will be created for each health facility, listing names and titles of workers at each facility. Along with the names will be a description of the individual's training record and a summary of their performance during quarterly supervisory visits. The rosters will enable the CSMC to monitor the development and progress of health personnel performance, thus monitoring training results. (For a complete timeline of project training activities, refer to Annex 9.)

Realizing that a 'chronic lack' of human resources is a major constraint, the project will help the district to consider possible options to overcome staffing problems. The system of assigning staff will be examined, and options such as increased involvement of other cadres of workers explored. The feasibility of delegating recurrent training to zonal supervisors and health facility staff without compromising quality will be explored. In the meantime, the CSMC will collaborate with the District Assembly and other government agencies to cross train workers. Also, updated job descriptions with objective and realistic criteria about workload will be established. Such criteria will enable the Nsanje CSMC to be in a better position to make decisions on posting and equitable staff distribution at health facilities.

Supervision System

The district's capacity to provide supportive systems and improve the skills of health workers will be strengthened based on Quality Assurance and Performance Improvement activities. Tools from the QAP project and PRIME II Project, namely "Performance Improvement Stages, Steps and Tools" will be used. A series of exercises involving problem solving and performance gap analysis will be used to assess the current situation. Once problems have been identified, appropriate, sustainable solutions will be proposed. QA/PI methods will be incorporated into all health activities at each health facility level.

A main goal of the project will be to improve CSMC's capacity to supervise and monitor all health workers, including HSAs. Approximately one month after completion of HH/C IMCI case management training, the District HH/C IMCI Coordinator will visit health facilities where trained health workers are stationed. During this visit, health workers will be observed managing sick children using HH/C IMCI-based, observational quality improvement and verification checklists. The HH/C IMCI Coordinator will provide feedback on how well they assess, classify, treat, counsel and, when necessary, refer ill children. After this initial visit, the HH/C IMCI Coordinator will establish a supervisory roster, organizing quarterly supervisory visits. Supervisory visits will focus on observations of consultation performance. Feedback from supervisory visits will be provided. Feedback forms will be developed to facilitate this supervision process.

Supervision of health facilities, HSAs, and communities will also be strengthened (as described in A.1, and A.3) to resolve gaps in reporting and information gathering, as well as gaps in performance and service provision. To compliment supervision of health worker performance, a schedule for regular health facility assessments will also be created. Health facility personnel will be trained how to do self-assessments using HH/C IMCI health facility survey instruments, as well as how to use information gained from routine monitoring to solve problems and make decisions. Quality improvement and verification checklists based on HH/C IMCI and WHO standards will be developed to help service providers monitor the status of health facilities, as well as to facilitate routine monitoring and supervision from the district.

Strengthening the transportation system will help to improve supervision at health centers and health posts. The project will provide each zonal supervisor with a motorcycle to facilitate routine monitoring and supervisory visits to health centers and health posts in his/her zone. Routine monitoring and evaluation from district personnel, as well as periodic refresher courses, will help to sustain quality health worker performance.

Referral System

The referral system will be assessed and all existing barriers to referring ill children identified in order that a well-functioning referral system can be established. Awareness that pediatric and maternity emergency referrals should be prioritized will be raised in training sessions of health personnel at all levels. Criteria for referral will be assessed and revised based on HH/C IMCI and Safe Motherhood criteria. A referral information system will be established, starting with the creation of a referral form. The form will have tear off sections for recording purposes. Standard follow up instructions will be printed on the form to serve as a job aid for health workers. To facilitate use of the referral form with community volunteers who may have poor literacy skills, instructions will also be provided in picture form.

A system for following up cases will also be developed. An issue not addressed in the HH/C IMCI protocol is what to do in the event that a child does not return for his/her follow up appointments. As the HH/C IMCI protocol provides a schedule for follow-up of children according to specific diseases and problems, the number of children requiring follow up, at least in the first phase of the program, is likely to increase. The project will consider recommendations for tracing follow-up cases who do not return for a scheduled appointment, in the context of current staffing capacity.

Logistics

Availability of essential drugs, supplies and equipment in the district will be strengthened through inventory and logistics planning. Training to improve the district's capacity to adequately plan for essential drug and supply distribution will occur in tandem with training for health facility staff on monthly inventory and planning skills. A straightforward system to track drug consumption will be established, thus enabling the district to order sufficient amounts of drugs. This will be especially important with the introduction of HH/C IMCI and the likelihood that the use of Cotrimoxazole to treat children with fever and acute respiratory infections and/or pneumonia will increase.

Health Communication and Behavior Change

Developing an effective health communication and behavioral change approach is crucial to the project in Nsanje District. Currently, the district, as is the case throughout the country, relies primarily on traditional health education methods to impart information without understanding the underlying factors that influence behavior. Typically, health education activities involve health talks given to captive audiences, using traditional materials, often in short supply, that include posters and flip charts. Other strategies employed are drama performances, group songs, and some face to face counseling. There are few available manuals that detail behavior strategies and the technical content of basic messages. The district has relied on general content provided from the central MOH and other resources such as UNICEF's "Facts for Life." Health workers receive basic health education skills during their core training courses which are developed through hands-on experience. There is no specific MOHP staff position responsible for developing training and health education. One of the constraints the project faces is to change the attitudes of the CSMC and health workers regarding the need to invest time and resources to improve health communication and create behavior change strategies.

To address this critical component, the project will support activities in two phase: First, to improve existing strategies/messages/materials based on Malawi's 16 key HH/C IMCI practices; and second, to develop a comprehensive behavior change intervention:

1) *Revise Existing Strategies, Messages, Materials, Based on Key HH/C IMCI Practices*
   Currently a behavior change intervention package does not exist in Nsanje District. In order to implement workplan activities without interruption, the first step to improving BCC will be to assess current health education strategies and the content of messages used in the strategies.

   A BCC working group will be established from members of the CSMC. Other members from the DTC will be encouraged to participate to foster greater collaboration, as will individuals from other government departments (Ministries of Gender, Youth, and Community Services (MGYCS), Education, Agriculture, etc.). The role of the WG will be to provide leadership to carry out BCC activities over the life of the project.

Inventory and Assessment of Existing Materials

An important first step to improving the district's approach to BCC is to determine what materials exist. The WG will take an inventory of all existing strategies and materials. To complete this, all available documentation and materials will be reviewed during a two-week period. The technical content of messages will be compared with recommended essential behaviors and outcome indicators outlined in the Results Framework. In addition, the WG will plan and undertake a visit to other PVOs in the region to review what materials and technical assistance is available. Areas of emphasis will be the nationally supported initiatives on HH/C IMCI, malaria, nutrition and HIV/AIDs. A major focus will be on reviewing the new national IMCI toolkit, *Key Family and Childcare Practices,* as a technical standard to develop messages and message content. The document, produced by the National IMCI Taskforce, has outlined key messages developed for the 17 IMCI key behaviors adopted in Malawi. Following a review of all existing materials, the WG will then prepare recommendations to the CSMC on changes and refinements needed for the district's educational message content used by health workers.

Based on the recommendations, revisions will be made to message content and a report will be produced and disseminated to all health workers in the district. A secondary step will be to develop simple facilitation guidelines and lesson plans to complement the revised message content. The guidelines will include, by intervention, essential behaviors, critical messages, and discussion guidelines that reinforce principles of adult education, and effective communication techniques (for groups and one-on-one settings). Again, the *Key Family and Childcare Practices* manual will be instrumental in producing Nsanje District BCC guidelines.

Dissemination and Training

To efficiently disseminate revised guidelines, the WG will train the zone supervisors to conduct a one-day training session at each health facility. The purpose of the orientation will be to review and practice new guidelines with health workers. A plan to reach each of the HSAs in the zones will also be developed using the existing supervision schedule. This will minimize costs and encourage greater participation of health facility and zonal teamwork.

2) *Develop A Comprehensive Behavior Change Intervention (BCI)*

Improving the technical content of messages, and training in facilitation and counseling skills is an important first step to improve the CSMC's implementation of BCC at low cost. However, a comprehensive behavior change intervention is needed in order to effectively address the IR 4 objective to "Increase demand for prevention and curative services."

As stated above, the approaches to date employed by the MOHP are typically didactic health talks, relying on visual materials and generic messages. The underlying rationale for health education is the assumption that mothers lack knowledge. Health education is thus conducted without analyzing underlying factors that influence behavior.

To establish the foundation for developing the capacity of the CSMC to improve BCC interventions, the project will use the BEHAVE Framework to introduce BCC design and implementation. The outcome of these activities will strengthen the CSMC's understanding that:

- A behavior change approach underlies effective health worker training, and educational activities,
- Before designing educational activities and materials, behavior must be understood, namely: whose behavior is targeted; what is the current behavior; what is the desired behavior; and why some caretakers practice the desired behavior while others do not.

Orientation and Planning Workshop

The IEF will help organize and conduct a 4-5 day orientation and planning workshop. The purpose of the workshop is to introduce new concepts, establish the importance of re-orienting the current IEC approach to a behavioral approach, and establish a plan of action for developing a BCI.

The workshop will be built around the BEHAVE framework. The framework provides a method to help the CSMC identify behaviors that can realistically be changed. Specifically, the four major steps of the BEHAVE framework are:

1) Audience - articulate whose behavior is to be targeted;
2) Behavior - identify what actions can be taken by the target audience;
3) Key factors - identify the factors influencing audience behaviors; and
4) Interventions - facilitate decisions concerning the activities needed to promote behaviors (strategies, materials, messages, etc.).

The workshop will begin answering the first two steps (audience and behavior) and identify the needs for further qualitative research to answer the factors supporting behavior change (i.e. the last two steps). The workshop will also establish the scope of activities to be undertaken given limited resources (for example, whether to address a single priority intervention or multiple interventions at the same time). It is likely, however, that the critical interventions to address will be the newer and more difficult interventions promoted at the community level (use of ITNs, and health seeking behaviors involving fever and difficult breathing). The workshop will also establish roles and responsibilities, and outline the action plan needed to complete all required steps for the creation of an effective BCI.

Conduct Formative Research

A first step to be undertaken is the design and implementation of formative research on priority behaviors. This research addresses step three of the BEHAVE framework, "Key Factors," by investigating individual, social, cultural and economic factors influencing behaviors (knowledge, barriers, perception of risk and consequences, personal self-efficacy, reinforcing networks in the community, and constraints).

The formative research will be initiated by first conducting focus groups and key informant interviews of mothers, men, families and community leaders to provide a picture of behaviors within the wider social and environmental context of the district. Based on these results, short questionnaires will be designed to interview community and household members. These questions will be included in the qualitative nutrition survey that will collect data on adult and child nutrition practices, availability of foods, prevalence of anemia, parasites and adult malnutrition. The nutrition survey will be designed to capture both nutrition information and behavioral data that the KPC was not able to capture.

To better prepare for the formative research, the project is sponsoring two to three persons to attend the CSTS/ CORE sponsored workshop on "Qualitative Research techniques" planned May 5th-9th, 2003.

Develop an Integrated BCI Plan

The survey research data will be presented and analyzed in a one to two day workshop organized by the WG and involving the CSMC. The research results will be used to validate key factors identified by the WG during the first workshop. Based on the evidence presented, participants will complete a draft design of the Behavior Change Intervention Plan.

Draft BCI Message, Materials and Intervention

In this step, the team will review the interventions, strategies, and objectives required to draft methods and materials. Part of this process will require modeling behaviors to be conveyed in the materials, drafting facilitation steps, and creating job aids for use by health workers.

Materials will be developed at the lowest cost possible. The project will consider hiring a photographer to take 35m photographs of model behaviors. Approximately two week will be required to take the photographs, develop the film and select a group of photos that best capture desired behaviors. Photographs can then be scanned into the project computer, incorporated into draft materials, and printed at low cost. Hand held laminated cards, each with a series of "model behavior" pictures, key messages, and instructions on the reverse side will be developed. Other materials to be developed are flipcharts and audio cassette tapes with key messages. Each set of materials will have consistent messages with pictorial content and short instructions and/or a facilator's guide.

Trial BCI Messages, Materials, and Strategies

The draft messages will be tested on two levels. First the draft materials will be presented to one to two groups of MOHP staff in structured role play exercises. The purpose of this activity will be to check messages before the field test and revise if needed.

Second, the messages will be tested in the field by - health facility providers, HSAs, and CHVs, in different settings (for example, health facility, mobile clinics, and communities). After the trials, teams will reconvene, compare notes and determine whether refinements are need.

Table 2 – Structured Interviews

	Health facility level	Mobile clinic	Household
HF provider	• Group setting • 1 on 1		
HSA		• Group setting • 1 on 1	• Groups of women • 1 on 1in HH
CHV		• Groups of women • 1 on 1 in HH	• Groups of women • 1 on 1 in HH

Low levels of literacy among community health volunteers and women in Nsanje District will be taken into consideration when materials are developed. Thus, all materials will have easily-to-understand instructions in picture form.

Final Revisions and Production of BCI Materials

Based on the trials, final revisions will be made and produced. Standard publishing software will be used as much as possible to design the final materials. Laminated photocopies will be produced locally to reduce costs.

Develop BCI Training Manual to Accompany Materials

While the materials are being produced, the WG will draft a short facilitation guide and training modules for the training of health facility workers, HSAs, VHCs, and CHVs. This training will be part of the larger district training plans.

Train Health Workers on BCI
In order to train district staff, a three to four day Training of Trainers workshop will be conducted to instruct all CSMC staff, zone supervisors, and trainers on the use of materials in preparation for the training of HSAs and CHVs. Refresher trainings will be organized in 2004 for activities at the zonal level to reduce costs.

Monitor and Evaluate BCI Implementation
A plan will be developed to monitor BCI implementation within zones. Monitoring will facilitate an evaluation of how effectively materials are used by the facilitators. BCI indicators will be incorporated into the overall project monitoring and evaluation plan. Furthermore, the progress reports will be included in the annual district health forum, an annual event that gathers together representative health staff in the district for a participatory meeting. A final summary report will also be prepared to document experiences. This report will be disseminated to the DTC, other PVOs and donors.

All lessons learned and best practices gained from the project will be shared with stakeholders inside and outside of Nsanje District, as well as with PVOs, NGOs, national organizations such as the Blantyre Integrated Malaria Initiative (BIMI) and donors.

3.A.3 Establishing HH/C IMCI Practices at the Family and Community Level

The purpose of introducing Community HH/C IMCI is based on the following three objectives:

Objective 1: Increase use of quality child health services (e.g. facility-based HH/C IMCI)
Objective 2: Improve household health practices and behaviors
Objective 3: Improve capacity of community-based providers to offer quality care and information

Introducing community and household HH/C IMCI will improve quality assurance at the community level. The skills of HSAs and Community Health Workers (i.e. Growth Monitoring Volunteers and Traditional Birth Attendants), such as vaccination, growth monitoring, record keeping, reporting, health communication, counseling and referral skills will be improved through training and supervision. The recognition of danger signs and the practice of healthy behaviors by caretakers will be improved through training and supervision. An increase in the quality of care at the community level will reduce childhood morbidity and mortality.

The key family practices adapted for use in Malawi that will be used as key BCC messages can be seen in Table 3.

Table 3. Key HH/C IMCI Community and Family Practices in Malawi[32]

For physical growth and mental development

- Exclusive breastfeeding for the first six months
- Starting at six months of age, feed children freshly prepared energy and nutrient rich complementary foods, while continuing to breastfeed up to two years or longer.
- Provide adequate amounts of micronutrients (vitamin A and iron, in particular), either in their diet or supplementation.

For disease prevention

- Take children as scheduled to complete a full course of immunizations - BCG, OPV, pentavalent (DPT, HepB + Hib) and measles - before their first birthday.
- Dispose of feces (including children's) safely, and wash hands after defecation, before preparing meals and/or feeding children.
- Ensure that children sleep under an insecticide-treated bednet.
- Adopt and sustain appropriate behavior regarding HIV/AIDS prevention.

For appropriate home care

- Continue to feed and offer more fluids, including breast milk, to children when they are sick.
- Give sick children appropriate home treatment for illness.
- Take appropriate actions to prevent and manage childhood injuries and accidents.

For seeking care

- Recognize when sick children need treatment outside the home and take them for health care to the appropriate provider.
- Follow recommendation given by health workers in relation to treatment, follow up and referral.
- Ensure that every pregnant woman attends the minimum recommended four antenatal visits, and receives recommended doses of tetanus toxoid vaccination, and is supported by family and the community in seeking appropriate care, especially at the time of delivery and during the postpartum lactation period.

The fourth intermediate result of the log frame is to strengthen community participation in health interventions. One of the major gaps in health services stems from a lack of training at the community level. A small community assessment conducted in preparation for the writing of the DIP confirmed this. Ten villages in the district were randomly chosen for the community assessment. In the 10 villages, 10 VHCs, 9 HSAs and 6 GMVs existed and were interviewed. Although it is recognized that results are not statistically significant, the numbers are nevertheless noteworthy. Fifty percent of VHCs, 22% of HSAs, and 50% of GMVs reported never having received any form of training. One HSA received initial training in 1980, another in 1988, two in 1994.

Initial training for the GMVs who were trained took place in 1989, 1991, and 1996, respectively. Seven (78%) of the HSAs and five (83%) of the GMVs who were trained did not receive any refresher training. A summary of the results is detailed in Table 4.

Table 4. Teaching of VHCs, GMVs, and HSAs in 10 Villages

[32] Taken from "Key Family and Community Practices, " developed by MOHP, MOGYCS, UNICEF, and WHO, 2003.

Cadre	No. Trained	Never Trained	One Refresher Training	No Refresher Training
VHC *N=10*	50% (5) Trained	50% (5)	**NA***	**NA***
HAS *N=9*	11% (1) in 1980 11% (1) in 1988 22% (2) in 1994 33% (3) in 1997	22% (2)	22% (2)	78% (7)
GMV *N=6*	16.7% (1) in 1989 16.7% (1) in 1991 16.7% (1) in 1996	50% (3)	16.7% (1)	83% (5)

*Not Asked

Regardless of training backgrounds, all community health agents, including VHCs, will be trained. The introduction of HH/C IMCI will completely revamp the training system and training materials to be used.

Working through HSAs, the project ensures that each village has a health committee (VHC). In theory, every village in the district should have a VHC. However, the reality is that many villages do not. The primary reason for this is a lack of support and motivation from HSAs and a lack of resources. One of the primary responsibilities of HSAs is to work with VHCs, providing routine supervision and support. This function will be crucial to strengthen community participation. HSAs will establish VHCs in communities where they do not exist. They will train all existing and new VHCs on their roles and responsibilities which include:

- Mobilizing community members for health activities
- Conducting health talks based on the project's key messages and integrated BCI strategy
- Performing disease surveillance and gathering community information
- Nominating community volunteers
- Supporting, supervising and monitoring volunteers and community-based groups
- Conducting household inspections
- Promoting ITNs
- Maintaining boreholes
- Designing a community transportation plan for emergency pediatric and maternal referrals.

In selected villages, the VHCs will take part in participatory rural appraisals (PRAs) and census activities during the first two years of the project. An initial assessment of the use of PRA methods, and other community dialogue strategies, namely Training for Transformation, Stepping Stones, and other community leadership activities will be conducted to determine the most effective methods to be used in the remaining villages.

The existing network of volunteers will also be strengthened through the project. The function and total number of community volunteers in the district can be seen in Table 5.

Table 5: Function and Number of Community Volunteers

TYPE OF VOLUNTEER	FUNCTION	TOTAL NO. IN DISTRICT
Community Based Distributor (CBD) of Contraceptives	Distribute contraceptives and advise on family planning	10
Traditional Birth Attendants (TBA)	Antenatal clinics, deliveries, FE/Folate tablet distribution	244
Growth Monitoring Volunteers (GMV)	Vitamin A distribution Growth Monitoring	30
Home Based Care (HBC)	Follow-up visits to terminally ill patients	90
Orphan Care	Register orphans	40

Growth monitoring volunteers will be the focus of training to implement community HH/C IMCI. A total of 250 GMVs will be trained. Thirty GMVs exist in the district. VHCs will be responsible, with HSA assistance, to identify an additional 220 gifted individuals to be trained as GMVs. The role of GMVs in the project will be to promote BCC messages, refer sick children and administer vitamin A (VA) and ORS to children under 5 years, iron/folate to pregnant mothers (if the village does not have a TBA). A small incentive will be provided to GMVs, such as a tee shirt or a small supply carrying bag. This incentive will identify them as belonging to the district cadre of GMV. In those villages without a GMV, the project will rely on the VHCs to identify a capable individual who can be trained to assume the role of GMV.

In the first year of the project, at least 100 GMVs will receive training on the recognition of danger signs for malaria, pneumonia, diarrhea, nutrition, and when to refer a seriously ill child. GMVs will promote BCC strategies with succinct messages for each intervention, including complete immunization for children before their first birthday. These messages will be based on the project's key HH/C IMCI behaviors, as well as guidelines from the national tool *Key Family and Community Childcare Practices.* Although GMVs will be the focus of community IMCI mobilization, the project will also strengthen other cadres of volunteers via the VHC. VHC training will include strengthening VHC capacity to stimulate CBDs, TBAs, and HBCs motivation to provide services. Local strategies for maintaining morale will be explored with VHCs to ensure sustainability once the project ends.

Although GMVs will be the focus of community HH/C IMCI mobilization, the project will also strengthen other cadres of volunteers via the VHC. VHC training will include strengthening VHC capacity to stimulate CBDs (Community Based Distributors), TBAs, and HBCVs (Home Based Care Volunteers) motivation to provide services. Local strategies for maintaining morale will be explored with VHCs to ensure sustainability once the project ends.

The GMV training will be phased in by zone. Two district training teams will simultaneously conduct training in two zones. Before training is scaled-up to include an additional 150 volunteers, an evaluation will identify strengths and weaknesses in the training method to improve instruction. Training curriculum that has been developed by other PVOs, such as

Freedom From Hunger, and Project Hope, will be adapted for use in Nsanje District. Refresher training for all GMVs will be provided in the third year of the project.

Existing TBAs will receive training regarding proper antenatal and delivery care, particularly issues around hygiene and sanitation, as well as iron/folate tablet distribution to pregnant mothers. They will also be trained to promote key BCC messages about antenatal care, care-seeking during pregnancy, birth practices, and breastfeeding. Finally, a link will be established between GMVs and TBAs to ensure that mothers who deliver at home receive vitamin A after delivery. Refresher training will be provided for all TBAs in the third year of the project. All possible steps to facilitate coordination with the Safe Motherhood project in the district will also be made.[33]

Another possible cadre of volunteer are insecticide treated net (ITN) volunteers. At the writing of the DIP, the district reported an estimated 356 new volunteers would be trained on insecticide net use and maintenance in the district. Although the training schedule, dependent on UNICEF funding, is unclear, project members are willing to collaborate with the new volunteers should they be trained.

Traditional healers (THs) in villages will be identified in the second year of the project. The CSMC has expressed a keen interest in working with THs. An ethnographic STD study conducted by AIDS Control and Prevention (AIDSCAP) and the MOHP in Malawi showed that traditional healers are perceived as "less expensive, more sympathetic, more confidential, and more accessible than biomedical treatment."[34] Superstitious beliefs about illnesses are very common. According to folklore, often the root cause of illness is voodoo from a dead family member or ancestor. The belief is that a caretaker must go to a TH to consult an oracle and discern exactly what the dead ancestor is unhappy about. Once that is understood, the TH can prescribe the proper "remedy" for the child. Qualitative research methods, namely focus groups and in-depth interviews, will be used to gain a better understanding of the practices of traditional healers. Once practices are better understood, BCC materials will be developed.

Although results from the AIDSCAP/MOHP study showed that Malawians believed biomedical treatment difficult to access, they also believed that it was "faster and more powerful than traditional care."[35] The project will work to sensitize selected THs to biomedical procedures, specifically the standard case management of malaria, at a local health facility. According to members of the CSMC, most THs in Nsanje District have never been to a health facility and have no real concept of "modern medicine." An initial training of 25 THs will then take place, focusing on the recognition of danger signs, especially pneumonia, malaria, and diarrhea, when to refer, and how to counsel mothers to comply with referrals. An assessment of this training will be conducted before considering future steps.

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[33] The Safe Motherhood Project has now been established country-wide in Malawi. TBAs in Nsanje District were trained many years ago, however, and require refresher training. Training on Safe Motherhood in recent years has concentrated on health facility staff, namely clinicians, nurses, and midwives, focusing on Safe Motherhood practices. The two-week training protocol involves one week of theory and one week of hand-on training.

[34] Dallabetta, Gina. 1994. "Understanding STDs in Malawi," Africa Health. (Vol. 17; No. 1); Pg. 21.

[35] IBID., 21.

In addition to traditional healers, the project will track small business owners and vendors selling drugs. The practices of drug vendors will be explored through qualitative means to identify what customs should be targeted, such as over-prescription of antibiotics, lack of counseling, and lack of referring cases. Once these practices are identified and better understood, materials will be developed to change practices, especially with regard to prescriptions for malaria. A group of 10-25 drug vendors will be trained on basic HH/C IMCI assessment, classification and treatment, especially for children with pneumonia, malaria, and diarrhea. Appropriate prescription quantities, basic drug counseling- especially for antibiotics- and making timely referrals will be included in the training. An assessment of this training will be conducted before considering future steps.

Designing local solutions to recognize the role of drug vendors and THs that have the potential to improve the health of their community will be pursued through VHC and village leaders. Assistance from people of influence within the nine Traditional Authorities will also be sought to create a dialogue in the district.

Establishing community drug revolving funds (DRFs) will also be undertaken to strengthen community participation in comunity-based health interventions. It is well known that the eight existing DRFs in the district are not functioning effectively. The reasons for this are logistical problems, a lack of training, and confusion generated by the "Bakili Muluzi Health Initiative" which provides free drugs for the poor in some rural areas. An assessment of the existing DRFs will be undertaken to better understand the issues surrounding DRFs. Following the assessment, a new strategy will be devised for DRFs to make them more efficient, effective and sustainable. Appropriate training will be developed for community volunteers to facilitate implementation of the new strategy. An initial 10 DRFs will be initiated and closely monitored to assess next steps.

3.B. IMMUNIZATION

Situational Analysis

In Malawi, a "fully vaccinated child" is one who has one dose of BCG, four doses of oral polio vaccine, three doses of DPT-HepB + Hib (Haemoinfluenza B) and one dose of measles before his/her first birthday. An interval of four weeks must lapse for vaccines of multiple doses such as DPT-HepB + Hib and OPV. The complete schedule for childhood vaccination in Malawi is detailed in Table 6.

Table 6. Schedule of Childhood Vaccination in Malawi[36]

AGE	VACCINE
At birth or first contact	BCG
At birth to 2 weeks	OPV0
At 6 weeks	OPV1 and DPT-HepB + Hib1
At 10 weeks	OPV2 and DPT-HepB + Hib2
At 14 weeks	OPV3 and DPT-HepB + Hib3
At 10 months	Measles

KPC Findings:

The Nsanje baseline KPC indicated that 64 percent of children between 12 and 23 months have been completely vaccinated.

Table 7. Percentage of children aged between 12 and 23 months vaccinated

Vaccine	Percent Coverage
BCG	86%
DPT1	88%
DPT2	83%
DPT3	76%
OPV0	43%
OPV1	89%
OPV2	83%
OPV3	80%
MEASLES	70%
Complete Immunization	63%

The vaccination cards showed entries for Vitamin A treatment for only 36% of children, age 6-23 months. However, a full 89% of the mothers stated that their children had received a VA capsule. The "true" rate is likely to be between 36 and 89%. However, this result may suggests that in many cases, treatment with Vitamin A is often not recorded on the vaccination card.

At the community level, care seeking behaviors by some mothers in Nsanje District are shaped by misconceptions about immunizations. Some mothers believe the purpose of National Immunization Days (NIDS), for example, is to sterilize them or to hurt, even kill, their children. This combined with a lack of general knowledge regarding the benefits of immunization are detrimental to immunization campaigns. Other mothers are discouraged from seeking

[36] Malawi Ministry of Health and Population. 2002. Republic of Malawi Ministry of Health and Population Expanded Programme on Immunization - Malawi Field Operational Manual. (MOHP, Lilongwe, Malawi). Pg. 21.

immunizations for their children due to the distance from their homes to the nearest health facility, which, when combined with poor communication about mobile clinic visits, floods in some areas during the rainy season, and the local presence of a traditional healer, care from district health services simply does not happen.

Time is also an issue with vaccinations. A measles vaccine is not always sought by a mother due to the fact that she has not received an adequate explanation about the time that must lapse between DPT3 and measles. The same can be said for vitamin A (VA); a second dose is not always sought for children over one year of age because mothers do not know the date of the first VA dosage (due to a lost card, for example), or a lack of clear understanding that children need two doses of vitamin A per year.

Care-seeking behaviors are also affected because of gender bias in Nsanje District. According to men, child health is the responsibility of mothers. Mothers are the main agricultural producers in Malawi: seventy percent of all the food consumed in Malawi is produced by women.[37] This creates quite a dilemma. When the mother is busy with work, the child will not receive health care; when she takes time to seek treatment for a sick child, the household's food security is compromised.

Community politics sometimes impede proper care seeking behaviors. Due to occasional disputes between different villages and traditional authorities, village headmen advise their community members not to venture into the neighboring village to access care from the health facility there. Thus certain villages may be cut off from health care until the dispute between villages has been resolved.

At the facility level, health provider attitudes in some health facilities affect the care-seeking behaviors of mothers. Mothers who are poorly received at a health facility are discouraged from returning back to the facility. This damages the reputation of the facility, and thus demand for services at the facility, as the disgruntled mother shares her disappointment with other women in her village.

As for the cold chain, the HFA (Health Facility Assessment) demonstrated that 54% of the refrigerators in the district operate on gas, of which 25% were not operational in the six months prior to the survey. A lack of maintenance was identified as a major problem, due to the fact that 85% of health facility personnel had not received training on maintenance issues. The HFA also showed that while most health facilities stock of vaccines were not expired, the quantities of vaccines available at the time of the survey was not sufficient to match the under five population requiring vaccination.

3.B.1 Improving EPI+ at Health Facilities

Training on cold chain maintenance will take place for all health center personnel, as well as the eight senior HSAs who provide vaccination services at the district's eight health posts. Training

[37] Malawi Ministry of Gender, Youth and Community Services. 2000. National Gender Policy 2000-2005. (Republic of Malawi, Lilongwe); Pg. 1.

will also reinforce the need for quality control when copying information from health passports to health center registries. Regular monitoring and supervision of the eight health posts will be strengthened, using performance improvement standards and quality checklists.

The commodities that are essential for immunization include the following: vaccines, disposable syringes and needles, vaccine carriers, cotton wool, ice packs, safety boxes, report forms, maternal and child health passports, and paraffin (for refrigerators). The supply of these essential commodities is not always reliable. Reasons for this include improper planning skills and untimely requisition, as well as a lack of inventory skills. Training will be provided to all health facility staff to improve inventory and planning skills to help ensure adequate vaccination supplies at health centers and health posts. Improving individual skills in organization and planning will help guarantee a continuous, adequate supply of essential commodities after the project ends.

Health Assistants at the 11 health centers in Nsanje District will be trained to supervise HSAs in order to improve the link between health facilities and communities, promoting EPI. Nurses, MAs, HAs, and senior HSAs will be trained in communication and counseling skills, as well as organization and planning skills for fixed and outreach activities. Annual EPI/VA (Expanded Program for Immunizations/Vitamin A) campaigns and other outreach activities will be organized and carefully planned. HSAs and GMVs, will work with communities to determine opportune times to visit, and schedules will be developed. Fuel procurement and vehicle support will be strengthened at the district level through training. The addition of nine motorcycles to the district's fleet will greatly facilitate EPI/VA outreaches and campaigns.

Nurses, MAs, and senior HSAs will be trained in immunization safety, infection prevention, and disease surveillance. Performance standards for EPI+ will include standards for vaccine handling and maintenance. Safe injection practices will also be detailed, including a clean work space, handwashing, skin cleaning, using sterile needles, vaccines, and diluents for injections, and proper discarding of disposable syringes and needles in safety boxes after vaccination. Quality standards for provider-client interpersonal communication (i.e. treating patient politely and courteously) will also be detailed and reinforced in health worker training.

3.B.2 Improving EPI+ through Health System Strengthening

Efforts at the District Hospital will focus on the CSMC's capacity to organize and plan for campaigns and daily immunization services at health centers. Improving vaccine forecasting, cold chain monitoring, and outreach services, as well as reducing missed opportunities to vaccinate at health centers and posts, will improve EPI services.

The project will strengthen the district's supervision and monitoring capacity by establishing quality improvement measures. Performance standards and protocols for EPI+ will be established. Performance monitoring will be introduced with checklists. Checklists for routine monthly monitoring will be developed, as well as for quarterly supervisory visits. Supervision feedback for health workers will emphasize positive points, as well as areas for improvement, to encourage health workers and improve attitudes and overall morale. Quarterly meetings of health center staff will be held at the district level to monitor EPI and other project intervention

progress. Bimonthly meetings of health center staff will take place within each zone. Integrated supervision for CHAM units will also be established, guaranteeing that CHAM administrators are aware of technical standards at their health facilities.

Immunization on demand at fixed facilities, namely daily immunization services at health centers, will be established. A better system for organizing and conducting mobile outreach services will also be established, including adequate communication to mobilize communities. Strategic under five clinic locations will be identified and a monthly schedule of outreaches developed. The schedule will be shared with GMVs who will support village outreach.

The district will support National Immunization Days (NIDS). Due to the fact that NIDS do not happen on a regular annual basis in Malawi, the district has planned to initiate district-wide immunization days, to occur at least once a year. The CSMC will form a District Immunization Task Force that will be responsible for working with all health personnel throughout the district to ensure that community volunteers, leaders, and caretakers are aware of planned immunization days. The task force will be responsible for organizing and implementing the district immunization days, with the help of district personnel. Regular meetings will be scheduled for organizing and planning purposes and checklists developed to monitor organization and planning progress.

The CSMC will work to improve the distribution of essential commodities from the District Hospital to health centers and health posts. This will be accomplished by ensuring that supplies which arrive in Blantyre are transported to the Nsanje District Hospital in a timely manner. All possible steps will be taken to ensure that adequate quantity is procured and distributed. The quality of commodities according to WHO standards will also be assessed. Improving district-wide planning skills will reduce untimely requisition orders and improve the CSMC's ability to plan and seek essential commodities on time. Communication between health centers and the District Hospital, as well as logistics planning in terms of vehicle availability and fuel procurement, will also be strengthened to ensure adequate delivery of supplies. Improving overall organization and planning skills of district-wide health personnel will help ensure that the supply of essential commodities be sustained after the project ends.

Procurement of adequate numbers of maternal and child "health passports" (health cards) is an important priority. With a card, mothers and children do not receive services. Complete and up-to-date records on number of children under five years of age per village will facilitate the procurement of passports. This will prevent delays in card distribution and facilitate vaccinations. The district will take steps to standardize the manufacturing of passports with a plastic coating to help protect them from deterioration.

A proper waste disposal system will be designed and established by the CSMC. Quality standards for proper monitoring will be established. This will include the proper removal of all disposable vaccination supplies. Adequate paraffin procurement for waste incineration will also be prioritized.

At the writing of the DIP, a national stockout of vitamin A had been recorded for the past two months. The IEF will secure private donations of vitamin A from Sight and Life, a humanitarian

initiative by F. Hoffman-La Roche Ltd. Connections will be made between Sight and Life and the CSMC to ensure sustainability of supply after the project ends. Although the IEF recognizes that improving the MOHP distribution system is a more sustainable approach for this intervention, the project will also take all possible steps to support the MOHP's Five-Year Micronutrient Plan of Action, especially with regard to vitamin A.[38] Regular training activities will include a new focus on utilization of VA for treatment of measles and malnutrition. Coverage of VA will also be addressed in conjunction with QA exercises for immunization.

Finally, traditional healers and shop vendors will be trained on referral procedures regarding immunizations and vitamin A for children under five years of age.

3.B.3 Improving Family and Community EPI+ Practices

The project will focus on essential HH/C IMCI behaviors, including complete immunization before a child's first birthday, to change care-seeking behaviors. Myths about immunization, such as vaccinations causing sterilization or harm to children, will be aggressively targeted for change through BCC messages. Appropriate materials will be produced to be used to convey BCC messages. VHCs, HSAs, and GMVs will be trained in basic counseling methods and key BCC messages. They will disseminate messages and materials by means of mothers groups, community chats, drama groups, village poets/song writers, and household visits. Mothers of healthy, vaccinated children will also be asked to help dispel myths in their villages and surrounding villages, thus mobilizing mothers of non-immunized children to seek vaccinations for their children.

Men will be sensitized on the importance of participating in efforts to improve child health. Drama groups in villages will be used as a strategy to raise awareness about gender attitudes and biases. Village leaders will also be targeted and sensitized with the help of VHCs on the importance of child vaccination. The well-being of children should be the priority over politics and disputes between neighboring villages.

High risk areas within the district will be identified. For example, approximately one percent of the population in Nsanje District practice the Apostolic Faith which prohibits families and caretakers from seeking medical attention. With the help of neighboring villages, a strategy to protect children from disease through immunization, while respecting religious views, will be developed. The BCC strategy will also target families of Apostolic Faith.

VHCs will be trained to help support HSAs and GMVs in a quality control strategy of "baby tracking," or monitoring vaccination/vitamin A (VA) of children under one year of age. HSAs will also do disease surveillance to monitor outbreaks of disease in villages. GMVs will be responsible for keeping a registry of children under five years of age in the community. The HSA will work with the GMV and VHC to identify those children who have not been fully immunized and/or who have not received two doses of VA. GMVs will distribute VA to children under five years of age. They will also help mothers monitor six month intervals of time to ensure that children receive vitamin A twice a year.

[38] The MOHP will present results from a national vitamin A survey that took place last year in a workshop from May 7th to 10th;, 2003. A five-year action plan will be designed during the workshop.

3.C. NUTRITION

Situational Analysis

According to KPC data, 71% of women put their newborn to the breast within one hour of birth. Ninety-two percent of women reported giving their child colostum during the first three days after delivery, and 98% reported that nothing else was given to the child. Approximately 97% of women reported that they were currently breastfeeding.

Diet for children usually consists of nsima (a paste of maize flour and water) and a relish from a vegetable base. Meat and a variety of fruits and vegetables are not generally part of the diet in Nsanje District. Children are not usually allowed to eat eggs, the popular belief being that eggs cause abdominal problems in children. It is also believed that eating eggs prevents chickens from multiplying and, thus, that chickens will be eradicated. Fathers are the first to be fed in homes, followed by young males, and then females. The quantity and quality of food for children is often restricted, the belief being that the head of the household, the man, should receive the most and best quality of what is available. A direct correlation is not always made between food intake and nutrition. For example, malnutrition is widely believed to be the consequence of a father's infidelity.

At the health facility level, the quantity and/or quality of scales and measuring boards is problematic. At the nutrition rehabilitation unit (NRU) at the District Hospital, supplies for cooking demonstration (i.e. cooking utensils, flour, maize, etc.) are lacking. Due to a shortage of staff and lack of capacity at many health centers, and the District Hospital, children are very infrequently admitted for nutrition-related treatment. Standards for admittance for children at the District NRU on the basis of malnutrition do not exist. Health centers do not offer nutrition rehabilitation clinics as a service. When sick, malnourished children are returned to their villages without any treatment for malnutrition. This often results in poor confidence and motivation among village members about nutrition services.

At the health system level, resources for nutrition are not prioritized in the district's budget due to the lack of data or evidence that malnutrition is a problem.

At the community level, care-seeking among mothers of children under five for malnutrition is hindered by the fact that health center personnel do not have the capacity to adequately assess, classify and treat malnutrition. Children are not properly assessed for malnutrition, and there is limited awareness about the extent and consequences of malnutrition in children under age five in the community. Poor communication about supplementation campaigns has also lead to a lack of community confidence in nutrition services. In the past, supplementation campaigns have been advertised with the promise of free food. What has not always been communicated is that children must meet a certain malnutrition criteria to receive the free food. Therefore, mothers who return to their villages without food contributes to a lack of confidence in services.

3.C.1 Improving Standard Case Management of Malnutrition at Health Facilities

The WHO/UNICEF "Ten Steps for Successful Breastfeeding" will be used to facilitate practices and policies with regard to breastfeeding. The steps are:

1) Have a written breastfeeding policy that is routinely communicated to all health care staff
2) Train all health care staff in skills necessary to implement this policy
3) Inform all pregnant women about the benefits and management of breastfeeding
4) Help mothers initiate breastfeeding within an hour of birth
5) Show mothers how to breastfeed, and how to maintain lactation even if they are separated from their infants
6) Give newborn infants no food or drink other than breast milk, unless medically indicated
7) Practice rooming-in (allowing mothers and infants to remain together 24 hours a day)
8) Encourage breastfeeding on demand
9) Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants; and
10) Foster the establishment of breastfeeding support groups and referring mothers to these support groups on discharge from the hospital or clinic.

Training for health center staff will include the ability to assess breastfeeding technique and to counsel mothers on resolving basic breastfeeding problems. HH/C IMCI standard case management of breastfeeding includes an assessment of attachment, positioning, and length of feeding. Counseling skills on breastfeeding and complimentary feeding at home based on HH/C IMCI protocols will be used to train and guide health center personnel. Additional technical assistance for complimentary feeding, if necessary, will be obtained through LINKAGES. IEF has a good working relationship with Linkages, having collaborated with them in the Lowershire Valley in the past.

Health facility personnel will also be trained in the assessment and classification of malnutrition according to HH/C IMCI guidelines. They will be trained on proper weighing skills, identification of malnourished children using growth charts, and the clinical signs and symptoms of malnutrition. Health facility personnel will also be trained in deworming protocols and strategies, including the promotion of proper hygiene and sanitation. Health personnel will also encourage mothers of malnourished children to participate in a nearby PD/Hearth nutrition rehabilitation program.

District Hospital staff at the NRU will be trained in proper rehabilitation of malnourished children, based on HH/C IMCI protocols. A follow up strategy for malnourished children will be developed by the CSMC. The follow up activities will be carried out by GMVs to ensure that behavior change within the family is sustainable and repeat bouts of malnutrition for the child are prevented. The project initiative to introduce PD/HEARTH will also assist to reorient the NRU to new practices and a focus on "community rehabilitation" using Positive Deviant model rather than static units that are less accessible to the general population.

The potential for Moringa tree leaves and leaf powder to be used as a food supplement at the NRU and throughout the district will be considered. Moringa trees grow rampantly throughout Nsanje District. Research has shown that fifteen grams of fresh Moringa leaves provides a child aged one to five with a full daily requirement's worth of vitamin A and C.[39] A 100 gram serving of fresh leaves provides a child aged one-five with approximately half his/her daily requirement of calcium, iron and protein, one third of his/her potassium needs, and quantities of B complex vitamins, copper, and all essential amino acids.[40] One portion of Moringa leaves provides pregnant and breastfeeding women with over a third of her daily calcium requirement, as well as quantities of iron, protein, copper, sulfur and B vitamins. Thirty grams provides a woman with her daily requirement of vitamins A and C.[41] An alternative to eating the leaves is to dry them and make a powder. Although much of the vitamin C will be lost from grinding the leaves, the powder will remain an excellent source of vitamin A and other nutrients. Furthermore, if stored in a sealed container out of direct sunlight, it will last for long periods and, when added to a meal, will provide tremendous nutritional benefit without significantly altering taste.[42]

Quality Assurance and Performance Improvement tools (see A.2 for more details) will be used to monitor health worker performance. Checklists for proper assessment, classification and treatment (the latter for District Hospital staff only) will be developed based on HH/C IMCI nutrition protocols. The project will ensure that every health facility conducting growth monitoring has the necessary equipment to do it, namely salter scales. Regular monitoring visits at health centers will also include checklists for salter scale accuracy and precision, as well as availability and condition of length measuring boards. At the nutritional rehabilitation unit at the District Hospital, adequate supplies of food as well as instruments for cooking demonstrations will be monitored.

3.C.2 Improving Standard Case Management of Malnutrition Health System Strengthening

At the health system level, recommendations on breastfeeding, including breastfeeding and HIV/AIDS, will be made based on the fact that breastfeeding is safer than artificial feeding. Practices that lower transmission of HIV/AIDS, such as exclusive breastfeeding for HIV positive mothers and preventing and treating breast problems, will be stressed in recommendations.

As with each project interventions, improving the quality of monitoring, evaluation, and supervision, as well as providing refresher training to improve health worker knowledge at all levels on the current policies and guidelines will be strengthened. Health workers at all levels will be able to support and strengthen messages and behaviors that mothers at the village level are receiving and learning. Strengthening the health system will ensure that strategies and policies are translated into protocols that are used to train, guide, supervise and monitor all health workers in the district. This will help to ensure project sustainability.

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[39] Recommendations of Daily Allowances (RDA) from Food and Nutrition Board of the National Academy of Sciences, USA.

[40] Fuglie, Lowell. 1997. "Moringa Oleifera: A Solution to Malnutrition in Africa?" (Church Wold Service, Dakar, Senegal). Pg. 12.

[41] IBID., 12

[42] IBID., 12.

Similarly, traditional healers and shop keepers, an integral part of the health system, will be targeted and trained on assessment and classification of malnutrition and proper referral procedures.

3.C.3 Improving Family and Community Nutrition Practices

Of importance to this intervention will be in-depth analysis of current practices, through the Nutrition and Health Behaviors (NHB) Survey. The purpose of the NHB survey is to determine actual levels of malnutrition based on weight for height, weight for age, and height for age. The assessment involves growth monitoring, a qualitative assessment of nutrient rich foods that are found in the area (and can be promoted), an assessment of the type of worms infecting children, iron deficiency, and a qualitative data collection of health seeking and feeding behaviors around illness, particularly diarrhea, malaria and pneumonia. With this information, caretaker responses to malnutrition and illness will be better understood. Taboos and practices associated with specific foods for children under five years of age and pregnant and lactating mothers will also be explored. The goal of the survey is to generate data that can be used to develop the most effective nutrition intervention and that can also improve the immunization, PMTCT, diarrhea, malaria, and pneumonia interventions.

BCC messages will be developed, specifying the quantity and nutritional content of food, feeding frequency, increasing caloric density by adding oils, foods that are rich in VA and iron, and dietary management of diarrhea, malaria, and ARI. Foods that are low-cost, locally available and culturally acceptable for supplementary feeding should be identified. Messages for maternal nutrition will also be developed, focusing on increasing the number of meals (one extra per mother), the consumption of nutritious snacks (in addition to regular diets) during pregnancy and lactation, iron folate supplementation during pregnancy and VA supplementation during the postnatal period. TBAs will be trained to follow pregnant mothers and encourage proper diet during antenatal and postnatal periods, specifically pregnancy and lactation. TBAs will also be trained in how to assess proper breastfeeding, namely attachment and position, and length of feeding.

Key messages on the importance of the early initiation of breastfeeding, within an hour of birth, exclusive breastfeeding until six months of age, and increased breastfeeding during episodes of illness, especially diarrhea, malaria, and ARI, will be disseminated to VHCs, HSAs, GMVs and TBAs. These messages will be introduced through community chats, village drama groups/poets/song writers, and women's groups. These messages, as well as messages on complimentary feeding, will also be stressed in the annual breastfeeding week that the CSMC will organize and implement each year. Messages about proper vitamin A supplementation for children under five years will also be disseminated. Using an events calendar to properly keep track of time, GMVs will help ensure that mothers to return for a second dose of vitamin A six months after the initial dose.

A pilot PD/Hearth nutritional rehabilitation program will be established in one zone. GMVs and HSAs will work together to organize and implement the program, mobilizing the participation of village mothers. The positive deviance inquiry (PDI) will be conducted by project staff in conjunction with the local GMV. Once the positive behavior(s) has/have been identified,

positive deviant mothers will be relied upon to train mothers of malnourished children to improve feeding behaviors. An assessment of the pilot PD/Hearth program will enable the project to identify strengths as well as areas that require improvement. After the assessment, changes will be made to the PD/Hearth strategy and it will then be scaled up to two other zones in the district. Following the successful implementation of the additional two zones, the program will then be scaled up to the remaining zones in the District.

In an effort to combat malnutrition in a sustainable and manageable way, the project will help the CSMC to coordinate with other Ministries on other interventions such as the Moringa tree and the WFP Food Distribution Program. This coordination is essential in order to integrate approaches, especially if food distribution is to take place, share training and BCC materials and establish common monitoring and evaluation plans.

3.D. DIARRHEA

Situational Analysis

At the community and household level, basic sanitation is a problem in Nsanje District, due to a lack of pit latrines. Access to water is not as much of problem. Borehole and pit latrine statistics for the district can be seen in Table 8:

Table 8. Borehole and Pit Latrines in Nsanje District

	No. Boreholes Working	No. Boreholes Not Working	No. of Pit Latrines	Total Population
South Zone	156	32	3,334	**60,125**
Boma Zone	87	24	3,533	**44,554**
Tengani Zone	112	32	2,026	**30,218**
Bangula Zone	113	39	2,619	**44,088**
Makhanga	57	12	1,438	**21,985**
Mlolo	100	24	3,983	**35,768**
Totals	**625**	**163**	**16,933**	**236,738**

Basic sanitary/hygienic behaviors, such as hand washing, proper water and food storage to prevent contamination, and proper waste disposal, are not practiced at the community and household level. Advice and treatment for diarrhea is often sought from unskilled providers, namely traditional healers and/or shop vendors.

At the health center level, there is also a lack of sanitary behaviors. Due to a lack of disposable items, medicine is served using the same utensils. The utensils are not consistently cleaned after each use. In addition, ORT corners have "died out" at health centers. As a result, there is no space designated for ORS treatment, observation and recuperation for children with diarrhea. With the exception of ORS, health centers do not have basic ORT supplies, including 1-liter containers, towels, and mixing utensils. Proper disposal of waste is also a problem at health centers. Sufficient quantities of paraffin are not always available to incinerate waste, and thus garbage sits in open rubbish pits.

3.D.1 Improving Standard Case Management of Diarrhea at Health Facilities

For the treatment and prevention of diarrhea, the project will ensure that ORT (Oral Rehydration Therapy) Corners are revived at each health facility. The project will provide 1-liter containers and mixing utensils to each facility. Collaboration with Population Services International (PSI), will guarantee that "WaterGaurd" bottles (filled with a chlorine-based solution) to purify water are distributed to health centers. WaterGaurd bottles will be available for purchase by mothers at a subsidized price. A local, sustainable solution for water purification will also be promoted by HSAs through VHCs at the community level, namely use of Moringa tree seeds. (See section D.3 for more details).

Training for health facility personnel will be based on HH/C IMCI standard case management of diarrhea protocols, including management of an ORT corner. Health personnel will promote a dose of vitamin A during the recuperative phase of diarrhea, if appropriate.

BCC messages for hygiene and sanitation washing will be widely disseminated throughout health facilities. These messages pertain to the need to thoroughly wash utensils, cups, plates, etc., after use, and allow them to properly dry, and to frequently wash hands with soap. Health personnel will also be trained on proper waste disposal according to the district protocol (see section D.2 for more details). Sanitary behaviors of health personnel staff will be observed during routine monitoring and supervisory visits.

3.D.2 Improving Standard Case Management of Diarrhea through Health System Strengthening

The project will support the CSMC to develop a proper waste disposal system and accompanying protocol to effectively monitor it at all health facilities. A lack of paraffin at health facilities will be remedied by improved resource allocation planning. The project will also improve paraffin distribution through improved logistics planning to ensure that health facilities receive an adequate stock on a regular basis.

Although not a major problem at the writing of the DIP, the supply of ORS will be reinforced with improved logistics planning. ORS is procured from UNICEF and then distributed from the District Hospital to all the health facilities in the Nsanje District. The project will also support the CSMC in the development of an ORT corner protocol to be used in all health facilities to monitor implementation.

The project will encourage proper borehole maintenance and use of sanitary latrines. Although the project will not be directly involved in latrine construction or borehole maintenance, latrine and borehole construction, upkeep/preservation, and use will be actively discussed with the Department of Works and Supplies.

Finally, traditional healers and shop vendors will be taught about ORS and trained how to prepare it. Traditional healers will be trained to distinguish simple from severe diarrhea that should be referred to a health facility. They will also be trained on key BCC messages, namely increased intake of liquids and food (if over six months) during diarrheal episodes. Both traditional healers and shop vendors will be given simple job aids to supplement their training. Both groups will receive counseling skill training to improve their ability to offer quality advice, based on HH/C IMCI protocols, to clients.

The project will also advocate the recognition of private health care providers who consistently demonstrate use of standard case management practices. A small token of recognition will be given to providers in the hope that others will follow their example.

In effort to strengthen the health delivery system, the referral system for severely ill children, including dehydrated children, will be assessed. Qualitative and quantitative data will be collected at the health facility and community level to understand referral practices and the barriers to referral that exist. The quality of referral care will also be reviewed.

Collaboration with other sectors, such as education, and water and sanitation, will strengthen the project's efforts to prevent diarrhea in Nsanje District.

3.D.3 Improving Family and Community Diarrhea Practices

Circulating BCC messages about diarrhea treatment and prevention will be the focal point of improving family and community practices related to diarrhea.

GMVs will be trained in key BCC messages namely increased intake of liquids and food (if over six months) during diarrheal episodes, and be able to recognize the danger signs of dehydration. They will share messages with mothers during home visits and community chats. In an effort to prevent diarrhea, GMVs will promote hand washing, proper water and food storage to prevent contamination, and proper waste disposal. Closed containers for water storage, and means to protect food from flies will be introduced. GMVs will be able to distinguish simple from severe diarrhea and thus refer children to health facilities. They will also be able to prepare and administer ORS and, in turn, teach mothers to do the same.

Adequate supplies of ORS packets will be ensured at the village level. The district's drug revolving funds (DRFs), once established under a revised district DRF strategy, will be supplied with ORS. Similarly, health posts will be fully stocked with ORS packets. GMVs will also have ORS to distribute, as will shop keepers and traditional healers. All actors involved in ORS distribution will receive proper training on ORS preparation and use.

HSAs will train VHCs on the importance of supporting personal hygiene and sanitation and encouraging families to use sanitary pit latrines. VHCs will also be stimulated to design a borehole maintenance plan, if some type of arrangement does not already exist. The project will look into the potential use of Moringa tree seeds to purify water. Moringa trees are found throughout Nsanje District, and thus use of the Moringa seeds is a very sustainable activity at the community level. Once removed from a seed pod, seed kernels are crushed into powder and added to water. The powder acts as a natural water coagulant, binding with sediments in the water and pulling them to the bottom. Bacteria is generally attached to solid particles, and thus Moringa powder purifies water, leaving it 90-99% clean.[43]

[43] Fuglie, Lowell. 1997. "*Moringa Oleifera: An Under-Utilized Natural Resource for West Africa*?" (Church Wold Service, Dakar, Senegal). Pg. 3.

3.E. ACUTE RESPIRATORY INFECTIONS (ARI)

Situational Analysis

At the health facility level, quality and level of knowledge and skills related to ARI and pneumonia is poor. Health personnel have never been trained in ARI case management. Consequently, patients with respiratory distress are infrequently referred from the community via HSAs to health centers, and from health centers to the NDH. The situation is grave due to the fact that volunteers, including DRF volunteers, are not authorized to dispense antibiotics, such as cotrimoxazole. ARI case management is completely dependent, therefore, on the recognition of danger signs by caretakers and health personnel at all levels.

Availability of antibiotics is a problem at health centers due to logistical and administrative bottlenecks. Health centers lack of basic commodities for ARI case management, such as stethoscopes, thermometers, and timing devices.

Care-seeking behaviors, as previously described, often lead a mother to a TH or a shop vendor instead of a quality health provider. These individuals are not trained to recognize the danger signs of pneumonia, nor do they know how to treat it or acute respiratory infections, nor do they have the antibiotics. Overcrowding and poor housing in the district, a product of poverty, leads to the spread of disease.

3.E.1 Improving Standard Case Management of ARI at Health Facilities

All health facility staff will be trained in the assessment, classification, treatment, and referral of childhood pneumonia. Workers will assess fast breathing from a wall clock with a second hand provided by the project.

Communication skills development will be a major focus of the training. As with all effective case management interventions, interpersonal communication skills are especially crucial for ARI management. Health workers at all levels must have the skills necessary to counsel mothers on the vital importance of following a complete schema/course of antibiotics. Failure to complete drug treatment will seriously threaten the health of the child and lead to antibiotic resistance. Health personnel must be able to effectively communicate to caretakers when to return for follow up, the necessity of continued fluids and feeding, as well as the recognition of danger signs.

The quality of health personnel assessment, classification, treatment, and counseling of ARI cases will be monitored through the use of HH/C IMCI observational quality and verification checklists. Written feedback will be provided to health personnel on a quarterly basis. One performance scorecard will be kept at the health facility, and the second will remain with the District HH/C IMCI Coordinator/Supervisor at the District Hospital. In addition, a district-wide "fun" scorecard system will be established with small incentives for District performance (e.g. Most Valuable Worker, Most Improved Worker, etc.) Health facility personnel will also be encouraged to design a self-monitoring system for their facility in order that they be able to monitor themselves.

3.E.2 Improving Standard Case Management of ARI through Health System Strengthening

Strengthening the supervision system is fundamental for improving ARI Case Management. All efforts previously described that directly or indirectly strengthen the supervision system will have a positive impact on the quality of ARI case management. Strengthening human resource management will also be pursued to improve supervision and performance.

Because most pneumonia case management occurs at health facilities, improving the referral system is key to ensure that children arrive at health facilities for timely treatment. The project will do an assessment of the referral system to identify problems at all levels and make subsequent recommendations for improvement. Health personnel will then be trained accordingly.

Improving the logistics system and management capacity in terms of planning and organization skills will serve to improve transportation and distribution bottlenecks. Similarly, improving financial management skills will also help to ensure the availability of required resources for drugs and fuel, etc.

The project will provide the training necessary to improve health worker logistics, inventory, record keeping, referral, and supervisory skills, thus strengthening the health system.

3.E.3 Improving Family and Community ARI Practices

Preventing child deaths at the community level from pneumonia is dependant upon caretaker recognition of fast breathing and the ability to access ARI standard case management in a timely fashion. Danger signs and key BCC messages will be transmitted to mothers via drama groups, locally written poems and songs, community chats, home visits, and mothers' groups.

The BCC strategies will be developed based on qualitative research that focuses on discerning local beliefs, practices, and terminology used to describe ARI. Key behaviors that can be changed to improve the recognition of danger signs and/or seeking help will be identified. Barriers to behavior change will also be analyzed, along with why some communities practice "good" behaviors while others do not. The information gathered will shape clear, concise messages that target caretakers of children under five years of age.

HSAs will educate VHCs about the necessity of creating a community transportation plan in the event that a child need urgent attention. HSAs will also be trained on proper steps to follow up and ensure that VHCs have indeed worked with their village to develop an emergency plan. Traditional leaders will also be sensitized through meetings held with the District Assembly, and will be involved in designing emergency village plans.

GMVs will be trained on proper identification of pneumonia danger signs. HSAs and GMVs will work with caretakers to impress upon them the dangers involved in seeking help from THs and shop vendors. At the same time, traditional healers and shop vendors will be trained how to properly identify and refer pnemonia for treatment at a health facility.

3.F. MALARIA

Situational Analysis

At the health facility level, a lack of essential commodities impedes the implementation of malaria standard case management. There is an insufficient supply of antimalarial drugs. A lack of forms and thermometers also impedes personnel ability to assess and classify malaria. The performance of health facility personnel is poor due to low motivation and a lack of refresher training. Planning and organization skills are lacking. Documentation is poor, in part due to a lack of registries. Quality of data is thus poor and unreliable.

At the community level, mothers seek advice about malaria from THs. The THs reinforce myths and misconceptions about the origin of illnesses. Testing for malaria at the NDH is sometimes hindered by cultural beliefs and practices such as the belief that if a child spits, it will increase his/her level of sickness.

3.F.1 Improving Standard Case Management of Malaria at Health Facilities

All health facility personnel will receive training on HH/C IMCI standard case management of malaria, involving assessment, classification, treatment, recognition of treatment failure, use of second-line anti-malarials, counseling, and referral of severely ill children to NDH. The protocol for treatment of malaria will incorporate pneumonia case management.

As with other interventions, counseling training for health workers will include recognition of danger signs at home, and other home care strategies such as continued feeding. Early recognition and treatment for anemia and malaria in pregnant women will also be stressed, as part of antenatal clinic services.

The project will promote the use of bednets by pregnant mothers and children under five years of age. Population Services International (PSI) is distributing ITNs to all health centers in Nsanje District. Two types of subsidized nets are available for purchase. The first ITN is meant for pregnant mothers and women with children under five years of age. In other words, these nets can *only* be purchased by pregnant women or mothers who has at least one child under the age of five years for a cost of 50 Kwacha (approximately 57 cents). The second subsidized ITN distributed to health centers can be purchased by anyone in the community (men, boys, women with older children, etc.) and costs 100 Kwacha ($1.15). PSI sells a third commercial net in large supermarkets in the cities of Malawi, ensuring a cost-recovery mechanism for subsidized prices. The commercial nets sell for approximately 320 Kwacha ($3.68) each. The three nets are different colors in order to easily differentiate them from each other. There is an incentive built in for nurses to sell the nets at health centers, as they are allowed to keep a small profit from each sale. Public demand for ITNs in Malawi is very high and people, even at the village level, are willing to pay to have them.

Health center nurses have received training from PSI about ITNs. The project will collaborate with PSI to offer periodic refresher trainings on ITNs and retreatment.

The project will ensure that a comprehensive antenatal services package is available for pregnant women. Health facility personnel will be trained about antenatal prevention, or Intermittent

Presumptive Treatment using Sulphadoxine-pyrimethamine (IPT-SP). Training will include schedules of administration of IPT-SP, use of directly observed treatment protocol for administering IPT-SP, the relationship between malaria and pregnancy, and the rationale for using ITNs for mothers, children under-five, and unborn babies. Best practices from the Blantyre Integrated Malaria Initiative (BIMI) will be used during these refresher trainings, especially approaches to increase the coverage of the second IPT-SP dose.

3.F.2 Improving Standard Case Management of Malaria through Health System Strengthening

In addition to PSI, the IEF will seek information from the National Malaria Technical Committee (NMTC) to share best practices and exchange technical information on malaria prevention issues such as ensuring the availability of ITNs, re-treatment chemicals, and IEC materials, and integration of new research findings into the HH/C IMCI protocol. The IEF will participate in NMTC meetings to discuss progress and challenges of implementing malaria prevention activities. These meetings will provide an opportunity for aligning the project with relevant policy developments.

Previously described improvements in the capacity of members of the health system to plan, organize, take inventory of stock, etc., combined with improved logistics and distribution system, will help ensure the continuous availability of SP, Quinine, as well as iron/folate tablets. Clinical supervision of health facility personnel at all levels will be implemented to ensure quality service provision. Improvement in the referral system will also improve standard case management of malaria.

3.F.3 Improving Family and Community Malaria Practices

Health education will be provided at the community level with key malaria messages through the use of health personnel, namely GMVs, VHCs, and HSAs, as well as social groups, such as village drama groups, poets/songwritiers, women's groups, etc. In addition to recognition of danger signs and appropriate care-seeking behavior, a culture of ITN use and retreatment will be the focus of project efforts at the community level.

VHCs will work with village members to share information about peak biting times for malaria-bearing mosquitoes (i.e. between 11pm and 2am) in order that they understand the need for ITNs. VHCs will also be responsible for organizing village-wide re-treatment of nets. Families will be educated about when nets should be re-treated, such as after washing, as well as the frequency of re-treatments per year. The cost of net re-treatment is approximately 30 Kwacha per net. Sustainable community strategies to support re-treatment of nets will be explored. The project will include guidelines for ITN promotion in traditional healer and shop vendor training.

TBAs will target women who are pregnant, especially those pregnant with their first child, to attend antenatal clinics and use ITNs. Fathers will also be targeted to ensure that pregnant mothers and children under five years of age to sleep under an ITN. GMVs will be trained to teach mothers and caretakers about the importance of compliance with a full course (i.e. dose and duration) of antimalarial drugs, as well as general behaviors about treatment of a sick child, such as continued feeding and drinking.

3.G. PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) of HIV/AIDS

Situational Analysis

The rates of HIV transmission in Malawi are internationally recognized by AIDS experts as being economically and socially catastrophic. A report on AIDS and child health by Afro-nets states that a quarter of all Malawi children will die before their fifth birthday, with AIDS contributing to nearly 50 percent of the mortality.[44] While no specific data for the rates of MTCT in Nsanje District exist, the high prevalence of HIV/AIDS in young and pregnant women suggest that it is high. Sixty percent of HIV-positive people in Malawi aged 15 to 24 are women.[45] In Nsanje, an estimated 23.6% of pregnant women (1321) were HIV-positive in Nsanje in 2000.[46] According to the Nsanje District HIV/AIDS Coordinator, approximately 60% of chronically ill patients admitted to Nsanje District Hospital suffer from HIV/AIDS related complications.[47]

A widespread cultural practice of sexually cleansing the spouse of someone who has died exists in Nsanje District, exacerbating the spread of HIV/AIDS. It is believed that if a woman or man is not "sexually cleansed" by a close relative of the deceased (usually a sibling), that the surviving partner will also die. In other words, when a married man dies, his sibling is expected to have sexual intercourse with the surviving wife. If this does not take place, it is believed that the surviving wife will die. The same scenario occurs (different genders) if a married woman dies.

Prostitution is another popular behavior in Nsanje District that increases the spread of HIV/AIDS. A lack of industry and employment opportunities, combined with cross-border trading between Malawi and Mozambique, facilitate the practice. A significant amount of migrant laborers (tea, sugar, trade, and services) who are separated from their families for extended periods of time also contributes to the high prevalence of HIV/AIDS in the population.[48]

HIV/AIDS is not a topic that is openly discussed in Nsanje District due to social taboos concerning human sexuality and the stigma associated with People Living with AIDS (PLWA). There are also many prevalent misconceptions and unfounded fears concerning diagnosis and treatment of STIs and HIV/AIDS. Because of this, care-seeking behaviors are not well understood. Voluntary counseling and testing services (VCT) are only available at the District Hospital. Anecdotal reports by health workers suggest that the demand for VCT services is greater than what the hospital can provide.

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[44] Afro-nets. 1997. "*AIDS and Child Health*."
[45] UNAIDS. 2000. Epidemiological Fact Sheets on HIV/AIDS and Sexually Transmitted Infections. WHO, 2000.
[46] Estimate calculated according to the following: 46,000 women x 12.3% currently pregnant = 5,600 pregnant x 23.6% HIV positive = 1321 HIV-positive pregnant women. (Malawi DHS/2000, UNAIDS, 2000).
[47] Nsanje District HIV/AIDS Coordinator, McLean Sosono. January 10, 2003.
[48] Van der Veen, Fred. 2002. "*Malawi: Assessment Of Existing STI Care Services And Recommended Strategies To Improve STI Care For Selected Target Groups, Regional HIV/AIDS Program Southern Africa*." (United States Agency for International Development, Windhoek); Pg. 2.

Condoms are available from the government free-of-charge at health facilities. Data shows, however, that condom use in Malawi is surprisingly low, with latest figures showing that 8.4% of women and 26.4% of men reported *ever* using a condom.[49] According to KPC results, 8% of mothers interviewed in Nsanje District reported using a condom the last time they had sex

Efforts to control STIs (Sexually Transmitted Infections) are constrained by the lack of laboratory diagnostic facilities, trained staff, reagents and drugs. Other obstacles to STI control are people's reluctance to discuss their sexual activities with "formal" or qualified providers of public health services. Instead, consultation often occurs with traditional healers who are perceived to be more sympathetic and confidential.[50]

As reported by Save the Children and Oxfam, HIV/AIDS increasingly and disproportionately affects adolescent girls and women in Southern Africa, including Malawi.[51] Women and adolescent girls are less able to protect themselves from the risk of HIV infection due to traditional power relations between men and women. Girls are at a high risk of sexual violence and/or coercive sex and are, perhaps not surprisingly, infected at rates that surpass all other age groups of females and males. This has harsh implications on food security. Due to the fact that women in southern Africa are the main source of agricultural subsistence labor, food production can be reduced by up to 60 percent in HIV/AIDS affected households.[52]

3.G.1 Improving Standard Case Management of PMTCT at Health Facilities

In an effort to prevent and/or reduce the number of children infected with HIV/AIDS from their mothers, the project will strengthen and/or introduce VCT services as well as PMTCT services. Integrated HIV, STD, and anemia services will first be provided at the NDH, and then scaled up to include the CHAM hospital. The project will supply the NDH with syphilis test kits and hemocues. Health personnel will be trained to perform all three tests- HIV/AIDS, syphilis, and anemia - with a single finger prick. Biological and epidemiological data support the fact that untreated syphilis enhances HIV transmission, thus treatment of syphilis will be provided immediately. Anemia will also be treated. In order to avoid missed opportunities, individuals who are tested at the NDH will also receive counseling on condom use, be provided with a supply of condoms, and, when appropriate, be counseled on exclusive breastfeeding for six months.

The project will partner with MACRO to provide a regular supply of the "same day result" kits to the NDH, enabling continuous, free VCT services. MACRO will also partner with the project to provide training for supervision, monitoring and evaluation to heath center staff.

Following WHO recommendations regarding areas where laboratory diagnosis is not available and/or reliable, syndromic management of STIs will be introduced. Health facility personnel will be trained in syndromic management of STIs and will be provided with job aids, such as syndromic management flow charts. At the same time, training will reinforce referral skills.

[49] UNAIDS, 2000.
[50] Dallabetta, 21.
[51] Save the Children/Oxfam. 2002. "AIDS and Food Insecurity in Southern Africa." Pg. 3.
[52] IBID., Pg. 3.

Syphilis identification and treatment will be piloted in two health centers. In the third year of the program, an assessment will be conducted to evaluate whether or not this service can be successfully scaled up to include the remaining nine health centers in the district.

The capacity of health facility staff to offer PMTCT counseling will be strengthened. Between 2001 and 2002, IEF partnered with the Linkages Project and trained essential hospital and health center staff in Nsanje and Chikwawa Districts on exclusive breastfeeding (EBF), voluntary counseling and testing (VCT), and feeding options for HIV-pregnant women. A total of 46 nurses from Nsanje District, the majority from NDH, participated in the 12-day training. The project will provide refresher training for them, as well as train additional health facility staff. Within several months of completing the second round of training, a skills assessment of health facility personnel will be conducted with assistance from MACRO. Decisions on additional health facility training will be made based on the assessment results.

The capacity of health facility staff to offer counseling regarding safe sex practices, especially for pregnant women, will be improved through training. Appropriate management of labor, delivery, and the immediate postpartum period for HIV positive mothers will also be addressed during training.

Finally, as explained in Section B.1, training will include safe injection practices. Several researchers from the WHO-affiliated Safe Injection Global Network (SIGN) recently made a "conservative" estimate that unsafe injections have resulted in as many as 20-40% of HIV/AIDS infections in Africa.[53] Other WHO researchers found that in five of seven studies on injection practices in Sub-Saharan Africa, at least half of the injections were unsafe.[54] Safe injection practices will be reviewed in the context of HIV/AIDS, stressing the importance of using of sterile needles and syringes and properly discarding them in safety boxes after one injection.

3.G.2 Improving Standard Case Management of PMTCT through Health System Strengthening

The commitment to provide comprehensive VCT/PMTCT services exists in Nsanje District. To ensure adequate capacity and supervision, the District HIV/AIDS Coordinator will oversee all activities related to VCT, PMTCT, and STI prevention in the district. The guidelines to be used will be those based on WHO protocols that have been nationally validated.

As explained in previous sections, the project will work with the CSMC to strengthen their administrative and financial planning abilities to implement PMTCT. Collaboration with MACRO will ensure a continuous supply of same-day test results kits. The project will also explore sustainability strategies to ensure the viability of the program once the project ends.

Logistics and inventory strengthening will help improve condom distribution from the District Hospital to health centers, health posts, and communities. It will also strengthen the supply of essential drugs for STI treatment, namely Benzathine Penicillin, Doxycline, Erythromycin,

[53] Physicians for Human Rights. 2003. "HIV Transmission in the Medical Setting: A White Paper for Physicians for Human Rights." Pg. 1.
[54] IBID., Pg.1.

Metronidazole, Nystatin Pessaries, and Gentamycin. This project is not implementing a comprehensive child spacing and reproductive health intervention due to limited resources and the fact that a Safe Motherhood Project already exists in Nsanje District. The Safe Motherhood project supports reproductive health activities. All opportunities for collaboration between the child survival project and the Safe Motherhood project will be maximized.

In the District Hospital, health centers, health posts, and communities, there are insufficient educational materials on reproductive health issues including STIs, HIV/AIDS and PMTCT/VCT.[55] Existing materials will be made widely available and additional topic specific materials will be produced as needed during training sessions.

3.G.3 Improving Family and Community PMTCT Practices

Training on VCT awareness and PMTCT messages will be included in training for GMVs and TBAs. Referral practices will also be reviewed. Improved syndromic management and linkage between the peer-education program and health services will benefit all target groups.

PMTCT/VCT efforts at the community level will also be improved through collaboration with extension workers from other ministries. Selected workers from various ministries, such as, Gender, Youth and Community Services, Education, and Agriculture and Irrigation will be trained how to counsel girls and women (especially pregnant women) about the risks of MTCT. After the training, the workers will then be in a position to integrate HIV/AIDS health education and prevention messages into their daily activities.

Because there are few, if any, breast milk substitutes available in Nsanje, most HIV-positive mothers are expected to choose to breastfeed. Community health workers will advocate EBF up to six months, followed by a complete cessation of breastfeeding. Information on appropriate nipple care will be included in the EBF training sessions to prevent HIV transmission through cracked nipples. Messages will stress the importance of condom use due to the fact that women who become infected during pregnancy have a much higher chance of MTCT than those infected prior to pregnancy.

BCC messages regarding the cultural practice of sexually cleansing the spouse of someone who has died will be developed. The messages will first be disseminated to village headmen and VHCs. Role models of widows who have not been cleansed and who are still living will be used as examples to change behavior.

Messages will also be developed for timely STI treatment seeking behaviors. The AIDSCAP/MOHP study showed that people consistently wait a week to one month before seeking care. Many said they were "embarrassed to discuss STDs and were driven to clinics only by severe pain." The study also showed that untreated patients "continue having sexual intercourse until it becomes too painful."[56] Respondents did not report seeking treatment for their partners probably due to the fact that STIs were acquired outside of a steady relationship. Men consistently identified bar girls or partners outside of their steady relationship as the cause for

[55] Van der Veen, Pg. 9.
[56] IBID., 21.

their STI. Messages will thus be developed to not only stress abstinence during treatment, but early treatment seeking for the symptomatic individual and his/her partner. Messages will also address the fact that many STIs, and HIV (before it manifests as AIDS) are asymptomatic, and thus use of condoms should be promoted at all times.

The project will also explore ways to introduce a Life Skills Curriculum to Nsanje District. With UNICEF support, Malawi's Ministry of Education, Sports and Culture, and the Malawi Institute of Education, have developed a life skills curriculum that is being piloted in 24 primary schools. In classrooms, students are learning decision-making skills to help reduce their vulnerability and negotiate healthy gender relations. The national strategy is to scale-up the program to all schools in Malawi.[57] In support of this program, teachers in selected primary schools will be identified and trained on the principles of the life skills curriculum. In the same schools, the creation of "Anti AIDS Clubs" will be encouraged. The purpose of the clubs, made up of students from the sixth to eighth grades, will be to spread HIV/AIDS prevention knowledge, to encourage healthy gender relations and behaviors, and to increase individual confidence, especially among girls.

Women's groups will be targeted as supportive environments to raise consciousness, increase knowledge, shape attitudes and awareness of risk, and develop safer-sex and negotiation skills. Open discussions concerning STIs, PMTCT, condom use, and interpersonal communication will be encouraged. The women's groups will also participate in developing BCC messages on HIV prevention topics of their choosing and be responsible for placing them throughout the community.

[57] UNICEF, The State of the World's Children 2002.

E.4. MANAGEMENT AND WORK PLAN

Refer to **E.1: Monitoring and Evaluation Plans,** for a description of the Result Framework and activity plan.

The following provides additional information concerning management and scheduling activities.

IEF, Nsange:	IEF, Blantyre:	Teams:
• Project Manager • Maternal and Child Health Advisor • Integrated Management of Childhood Illnesses Advisor • HIV/AIDS Advisor • M&E Advisor • Project Administrative Officer • Project Office Assistant/Secretary • Office Messenger/Cleaner • Drivers, Guards	• Officer Manager • Country Director IEF, HQ • CS/VA Coordinator • Support staff	• IEF Staff Team • District Health Management Team (DHMT) • Child Survival Management Committee (CSMC)

The IEF staff are budgeted 100% to the project who perform daily activities in relation to the project. They will ensure that the project work-plans are being followed.

The DHMT are the officials of the Ministry of health and Population who are responsible to oversee the MOHP program activities in the district. They serve as the project counterparts. They ensure the project content follows the MOHP guidelines and protocols. Their time is fully budgeted under MOHP. They will work with the project staff to ensure the success of the project.

The CSMC is a committee formed between the IEF Team and the DHMT Team. (For ease of terminology CSMC is used throughout the document). The responsibility of this committee is to monitor the progress of the project activity. The committee meets to develop the annual work plan and institute mechanisms for the achievement of the project objectives. The committee serves as a forum for resolving issues arising from the project implementation and determining the strategies for meeting the goal of the project.

Other teams/ working groups will be formed to manage day-to-day activity. The IEF IMCI Trainer will work in partnership with the district IMCI coordinator in planning training, supervision, monitoring and evaluation in relation to the IMCI component of the project. The Project MCH Trainer will again form a sub-team with the district MCH coordinator in planning, coordinating and implementing training activities. A HIV/AIDS team will be formed between the HIV/AIDS Trainer and the District AIDS coordinator. They will be responsible for the implementation of the HIV/AIDS component of the project. They will plan, coordinate, supervise, monitor and evaluate the HIV/AIDS training and other related activities.

See Annex 7 for an Organizational Chart

Responsibilities

IEF Malawi (National Office)
The IEF/Malawi National office provides backstopping manages Project Staff in all aspects of the project cycle, and performs important logistical and procurement support. Key persons are:

1. Country Director Geoffrey Ezepue, MD. (50%), provides overall management of the National Office, works closely with Project Managers and Ministry counterparts, and ensures financial accounting and reporting to IEF/HQ. This person is technically highly skilled and has many years of experience managing PHC and Child survival projects.

2. Office Manager, Sharmim Hansen (50%), provides routine administrative functions, controls payroll, petty cash, bookkeeping and procurement functions. This person has experience in accounting, administration, and personnel management. The National office is also supported by a messenger, driver and guards.

IEF Malawi (Project Office)
The IEF Field Office will be based at the Nsanje project site. The key staff provide the daily coordination of the project under direction of the Country Director and include the:

1. Project Manager, Edna Tembo (100%), provides overall coordination of the project with her DHMT counterparts. The PM is involved in developing detailed work plans, training, monitoring, supervision, evaluation, and reporting activities. The PM manages the field office resources ensuring financial control and reporting and supervises IEF Field Trainers and staff. She will also be involved in the organizational development and systems development activities described in Output1 District Capacity.

2. Monitoring and Evaluation Trainer, (100%), provides support to the Project Manager for organizational development activities, assessments, surveys, and who works with advisors and District counterparts on supervision, monitoring and evaluation activities. This person has eight years of experience conducting assessments, designing and conducting surveys.

3. IMCI Training and Supervision Advisor, (100%), provide support for IMCI training and work with counterparts assigned to develop malaria, pneumonia and diarrhea interventions. These persons will spend considerable time organizing and conducting training of health facility workers, Health Surveillance Assistants, Village Health Committees and volunteers. They will also support the development of the BCC and DRF initiatives. These persons will have clinical and or public health training and experience in field supervision.

4. Maternal and Child Health (MCH) Advisor, (100%), provides support for the nutrition intervention activities and works with the District Coordinator assigned to develop and pilot the Hearth intervention. The Advisor (a woman) will also support the Training and Supervision Advisors and the EPI/VA campaigns. This person will have skills in nutrition science and counseling.

5. HIV/AIDS Advisor, (100%), provides support for the HIV/AIDS intervention activities and works with the District Coordinator to develop the Voluntary Counseling and Testing (VCT) and Prevention of Maternal to Child Transmission (PMTCT) interventions. The Advisor will coordinate closely with the MCH Advisor on exclusive breastfeeding promotion. This person (woman) will have skills in nursing, laboratory science, and counseling.

6. Administrative Advisor, (100%), who will be responsible for advising the District on administrative issues, including fleet management, personnel management, budget management, and use of the accounting and pharmacy software, including on-the-job training of district staff. He or she will also be responsible for assisting the Project Manager in administrative and technical aspects of the project. The candidate will have demonstrated experience with a variety of computer programs, as well as experience in teaching and training.

All IEF staff have job descriptions and are evaluated on an annual basis. This team will be supported by a secretary, an accountant, a driver, a messenger and guards. (Refer to Annex 8 for resumes and position descriptions of two key staff.)

District Ministry of Health and Population
The DHMT and the health facility staff are the main implementers of project in coordination with the IEF Project Team in Nsanje and at the IEF National Office. The District infrastructure consists of the Nsanje District Hospital, two supporting CHAM (Christian Hospital Association of Malawi) rural Hospitals, and eleven health centers.

The majority of staff are located at the District Hospital. Key positions of the DHMT include:

1. District Health Officer, a Clinical Officer, providing overall clinical, surgical, and administrative services for the hospital. The DHO is the counterpart to the IEF Project Manager.

2. District Health Inspector provide key leadership in the area of environmental health.

3. District Maternal and Child Health Coordinator coordinates all immunization, antenatal clinic, and nutrition activities in the district in coordination with the DHIs.

4. District AIDS Coordinator provides coordination for all HIV/AIDS activities.

5. District Family Planning Coordinator, in charge of all family planning and child spacing activities, including TBAs.

6. District IMCI Coordinator oversees all activities pertaining to IMCI

7. Coordination for supervision, BCC strategies, and drug revolving funds is assigned to resident staff who have undergone training in these areas.

8. The majority of Health Centers are staffed by a Medical Assistant (MA), a nurse, a health assistant, and ward attendants. The MA provides daily outpatient services and the nurse provides antenatal and delivery services. Health Assistants provide public health outreach, maintain EPI services, promote sanitation and hygiene, supervise Health Surveillance Assistants, and work with communities. Ward Attendants provide maintenance, patient counseling, and other support.

The following Tables are Work Breakout Plans for the IRS. In addition to these tables further detail on the training and workshop activities is provided in Annex 9.

Tables

		Resp.	2002			2003										2004				2005				2006		
	Major Activities		O	N	D	J	F	M	A	M	J	J	A	S	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
IR1	District Organization and Management																									
1	Management functions																									
1.1	Identify staff and locate	1	X	X	X	X	X	X																		
1.2	Establish office	2		X	X	X	X	X	X																	
1.3	Procure equipment	1					X	X	X	X																
1.4	Establish CSMC	1,2	X					X	X																	
2	Strengthen planning																									
2.1	Conduct district planning orientation	1	X	X	X				X																	
2.2	Conduct BL, MTE, EOP survey	1,2,3																								
	KPC, HFA, Community	1,2,3		X	X	X	X	X																		
	HFA phase 2 performance	1,2,3										X														
2.5	Conduct DIP planning workshop	1							X																	
2.6	Develop Org. Cap. And Sustainability plan	1,2																								
	Conduct assessment/ write action plan	1,2													X		X									
3	Strengthen training, Super. M&E skills																									
3.1	Establish zone system	1,2							X	X	X	X														
3.2	Identify zone supervisors and train S/M/E	1,2							X			X														
3.3	Conduct LQAS workshop	1													X											
3.4	Conduct Performance Improve workshop	1											X	X												
3.5	Conduct Qtr supervision visits	2,3											X		X	X	X	X	X	X	X	X	X	X	X	X
3.6	Conduct Biannual performance assessments	1,2,3													X		X		X		X		X		X	
3.7	Conduct BL, MTE, EOP evaluations	1,2																X								X
4	Strengthen systems																									
4.1	Establish logistics and inventory system	1,2														X										
	Assess, install software and train	1,2														X										
4.1	Establish budget and financial system	1,2														X										
	Assess, install software and train	1,2														X										
5	Strengthen sustainability																									
5.1	Conduct district orientation	1														X										
5.2	Develop business plans	1,2															X		X							
5.3	Establish cost ward	2																		X						
5.4	Establish spectacle shop	1,2																X								
6	Improve inter-sector coordination																									
6.1	Conduct DTC, DA workshop HH/C IMCI	1,2											X													
6.2	Conduct CSMC orientation workshop	1											X					X				X				X
6.3	Conduct District Health Forum	2,3,4																X				X				X
6.4	Participate in DTC, DA meetings	1,2										X			X	X	X	X	X	X	X	X	X	X	X	X

1=IEF; 2=CSMC; 3=Zone supervisor; 4=health facility; 5=HAS/CHV

		Resp		2002			2003										2004				2005				2006		
	Major Activities			O	N	D	J	F	M	A	M	J	J	A	S	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
IR2	Health Provider Skills																										
1	Establish HH/C IMCI Foundation																										
1.1	Conduct inter-sector orientation	1											X	X													
1.2	Evaluate training curriculum/ materials	1,2										X	X														
1.3	Conduct district TOT HH/C IMCI	1											X														
1.4	Conduct training Facility providers	1,2,3												X													
1.5	Conduct trn. supp. staff & HAS zone 1-2	2,3												X	X												
1.6	Assess training strategy	1,2															X										
1.7	Conduct training Zone 3-4, 5-6	2,3															X	X									

1=IEF; 2=CSMC; 3=Zone supervisor; 4=health facility; 5=HAS/CHV

		Resp	2002			2003										2004				2005				2006		
	Major Activities		O	N	D	J	F	M	A	M	J	J	A	S	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
IR3	Availability and Access																									
1	Strengthen EPI/VA/DCM/ARI services																									
1.1	Conduct Kick Off campaign	2,3,4										X														
1.2	Conduct Annual NIDS	2,3,4												X				X				X				X
1.3	Conduct zone facility/mobU5 outreach	2,3,4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	Strengthen Malaria services																									
2.1	Establish link PSI	1,2	X										X													
2.2	Conduct district training ITN/IPT	1,2												X												
2.3	Conduct training nurses, HAS ITN	2,3													X											
2.4	Conduct training Has, CHVs	3,4														X										
3	Pilot DRF																									
3.1	Assess, and plan	1,2														X										
3.2	Conduct pilot training	1,2															X									
3.3	Establish pilot DRFs	2,3,4															X									
3.4	Evaluate effectiveness	1,2																X								
4	Improve Nutrition services																									
4.1	Establish inter-sector team	1,2													X											
4.2	Establish link SCF PD Hearth and train	1,2													X											
4.3	Determine feasibility	1,2													X											
4.4	Mobilize pilot communities	2,3,4													X	X										
4.5	Prepare and conduct PD Inquiry	1,2,3,4														X										
4.6	Design Hearth sessions	1,2,3														X										
4.7	Conduct Hearth sessions	3,4,5														X	X									
4.8	Support FU/ repeat visits	4,5																X	X	X	X	X	X	X	X	X
4.9	Expand																		X	X	X	X	X	X	X	X
5	Improve HIV/AIDS services																									
5.1	Establish inter-sector team	1,2															X									
5.2	Conduct training nurses PMTCT	1,2															X	X								
5.3	Establish link MACRO	1,2															X									
5.4	Procure equipment/ supplies	1														X										
5.5	Conduct district training	1,2															X									
5.6	Conduct formative research	1,2,3																	X							
5.7	Implement district services	2,4															X	X	X	X	X	X	X	X	X	X
5.8	Monitor and evaluate	1,2,3																X	X	X	X	X	X	X	X	X

1=IEF; 2=CSMC; 3=Zone supervisor; 4=health facility; 5=HAS/CHV

		Resp		2002			2003										2004				2005				2006		
	Major Activities			O	N	D	J	F	M	A	M	J	J	A	S	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
IR4	Increase Participation and Demand																										
1	Improve community mobilization																										
1.1	Conduct review of mobilization strategies	1,2											X														
1.2	Conduct village census	3,4,5											X	X	X												
1.3	Conduct Pilot zone VHC training HHCIMCI	1,2,3															X										
1.4	Conduct PRA, maps, Rosters	4,5																X	X	X							
2	Train CHVs HH/C IMCI																										
2.1	Conduct pilot zone training CHVs Zone 1-2	2,3,4															X										
2.2	Assess strategy	1,2																X									
2.3	Conduct zone training CHVs Zone 3-4	3,4,5																X	X								
2.4	Conduct zone training CHVs Zone 5-6	3,4,5																X	X								
2.5	Conduct Area Health meetings	4,5											X			X		X		X		X		X		X	
2.6	Conduct CHV women's group meetings	4,5												X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	Improve health communication strategy																										
3.1	Assess current strategy/ materials	1,2									X	X															
3.2	Revise materials/ develop manuals	1,2										X															
3.3	Conduct trn Adult Learning/ facilitation skills	1											X														
3.4	Train facility staff/ Has	1,2,3											X	X													
3.5	Establish inter-sector WG	1,2												X													
3.6	Establish link with partners	1,2													X												
3.7	Train district in BEHAVE	1,2														X											
3.8	Conduct formative research	1,2,3														X											
3.9	Develop strategies and materials	1,2,3															X										
4.0	Test, revise, produce materials																X										
4.1	Conduct training facility, suport, HAS in BCI	2,3,4															X										
4.2	Conduct training VHC, CHV in BCI	3,4,5																X	X								
4.3	Monitor and evaluate	1,2,3																X	X	X	X	X	X	X	X	X	X

1=IEF; 2=CSMC; 3=Zone supervisor; 4=health facility; 5=HAS/CHV

F. SUSTAINABILITY PLAN FOR NSANJE DISTRICT

The project will assist the CSMC to address a range of capacity building and sustainability strengthening efforts during the course of the project. In addition to the capacity building activities outlines in IR1, "Strengthen Organizational Effectiveness and Health Management Systems," the project is supporting the introduction of cost-recovery mechanisms by piloting two separate activities in Nsanje District.

In Malawi, the majority of the MOHP budget supports four central tertiary hospitals, while the remaining portion of the budget is distributed to the 24 Districts. Within the district budget, the majority of financing supports the district hospitals and the remaining budget supports health centers and health posts. In reality, a small amount of resources are invested in health centers and heath posts where the majority of the population receive their services. Typically, district budgets are exhausted before the end of the fiscal year.

In response to a chronic status of fiscal crisis, the Government of Malawi is undertaking reforms. The Government has approved policies for undertaking fee-for-service initiatives within the central and district hospital system. One new initiative is the Central Hospital Autonomy Reform. This initiative strives to create the management systems necessary to support the larger tertiary central hospitals in Lilongwe and Blantyre. The hope is that this will lesson dependency on the central budget for recurrent costs.

Simultaneously, the government has begun a district de-centralization process as part of an ambitious plan to finance district governments through the public tax system. Each district will receive funding from the central government. These resources will be administered through the District Assembly, a governing body represented by government departments, Members of Parliament, locally elected counsel members, and Traditional Authorities (Chiefs), and the District Commissioners Office. Presumably, district health will compete with the other district government departments (agriculture, community development, education, local government, works and supplies, etc.).

In theory, the District Hospitals are supposed to receive greater funding from the central level as part of the de-centralization process. This has yet to materialize, however, and the district budget is still insufficient to cover all planned costs. This year, for example, Nsanje District will receive approximately $200,000 to cover $286,000 worth of costs. Plans to foster district autonomy, including management and accountability of district budgets, is taking initial steps throughout the country. District hospitals are not well prepared, however, and will require support for the process to be successful.

Given that government and health sector reforms are underway, support for the Nsanje CSMC is imperative to help them:

- Advocate health needs effectively to the District Assembly
- Address health service quality issues and develop patient-focused services, based on better understanding of patient needs
- Understand costs for service delivery and improve efficiency

- Prepare the CSMC to manage self-earned income by introducing new skills in organizing, planning, and management.

To help the CSMC achieve these objectives, the project will assist the district to pilot two separate activities, namely a cost-sharing ward at the District Hospital and a spectacle shop.

1. Establishing a Cost-Sharing Ward

The precedent for a fee-for-service patient ward is well established in Malawi by the Christian Hospital Association of Malawi (CHAM), a network of hospitals and health centers throughout the country. Currently, CHAM health services support upwards to 40% of all health care services in the country. Although CHAM is subsidized by the Malawi government, the majority of all health units have a fee-for-service structure for those patients willing and able to pay for services. Often, patients forego receiving the free services from the government hospital, preferring to pay for service at the CHAM unit. The reasons for this are based largely on the perception that service quality is better at the CHAM hospitals. The reasons for better quality include greater attention given to patient needs, reliable drug supplies, and overall better services.

To help Nsanje District orient services to the needs of their patients and develop greater accountability, the project will assist the District Hospital develop a "business plan" for a "cost-sharing"[58] ward within the hospital.

The benchmark model for the cost-ward are the CHAM units that have semi-private and private rooms set aside for those who prefer to select and pay for services. The ward itself will be an existing room at the district hospital that will be improved by repairing and painting walls, floor, windows, ceiling, and doors (if needed); and providing new amenities including a toilet and shower area; new curtains, beds and bedding, furniture, lamps, and either a fan or an air conditioner

The service offered will also be redesigned to include greater attention and time spent with patients by the medical doctor and nurses; greater privacy and better food services.

The changes are simple. Nevertheless, they are designed to provide a viable choice for patients to self-select whether they want to receive free services in the general ward, or pay a fee.

The services will be made available to everyone and anyone who desires to use them. However, the patients most likely to choose fee-for-service are those who are employed or in leadership positions. The overall number of patients using this ward is thus expected to be small. As such, the expectation for revenue generation will not be to meet recurrent hospital expenditure. Rather, the CSMC will have a small source of income at their disposal, with the autonomy to decide how to use the money. IEF will encourage the CSMC to reinvest the funding into a sustainability fund for use to improve patient services and staff motivation.

[58] Although the government has approved of the concept of fee-for-service, the subject is highly politicized by government officials, especially during election periods. The term "cost-sharing" is preferred over "cost recovery" which implies that all poor people will be required to pay for services.

IEF will assist the CSMC through a business planning process to: define the results and objectives of the activity, research patient ability and willingness to pay for services, understand the costs of the services, establish a price structure, establish organization, management and reporting procedures, and provide training and support.

2. Establishing a Spectacle Shop

The precedent for a spectacle service is based on activities at the Lions SightFirst Eye Hospital (LSFEH), the eye department of the Lilongwe Central Hospital, and the Blantyre Lions Eye Hospital (BLEH), under construction at the Blantyre Queen Elizabeth Central Hospital.

The IEF has been assisting the LSFEH for over three years to re-design the eye care services to increase surgical productivity, lower costs, improve efficiency, improve the quality of services, and establish a pricing structure to generate self-earned revenue. A similar activity is planned for the new BLEH that is scheduled to open in September 2003.

The concept for financially sustainable eye care services is based on successful experience in India and Nepal. The principles for "cost recovery" are based on concepts of social enterprises.[59] IEF under its SightReach Management program is gaining experience in "sustainability planning" in Malawi, Tanzania, Egypt, Guatemala, and El Salvador. In the Malawi experience, multi-tiered prices (including a cost of zero- $0) are established for adult cataract surgery, a highly procedural surgery that can de done on an outpatient basis. In addition to surgical fees at a paying section of the hospital, other cost centers are operational that generate revenue. In all cases, there is a spectacle (eye glasses) workshop that provides high quality prescriptions and eye glasses for the lowest possible costs to anyone seeking the service.[60] All glasses are new and of high quality, regardless of the price. Production costs are reduced through bulk purchase from high volume distributors internationally.

In Lilongwe, the spectacle business is generating on average MK900,000 ($10-11,000) per month. The business is managed privately within the hospital and a percentage of the gross profits (15%) are provided directly to the eye department's sustainability account. Overall at the LSFEH, surgical productivity has increased (500 to 1,500 cataract surgeries year), unit cost of surgery decreased ($160 to $60); and revenue generated ($12,000 in 2002, to $25,000 in 2003).

At the QECH in Blantyre, IEF assisted the Blantyre Lions Club and MOH to secure a $1.66 grant to build a new eye department with the purpose of replicating the Lilongwe experience. IEF recognizes the importance that a spectacles business plays in supporting hospital revenue and is co-investing with a partner to establish another spectacle workshop in the new eye hospital. This new business will consist of optometry services (prescription), a lenses shop (production), and a showroom/store (sales). In the same manner as in Lilongwe, 15% of the gross profits will go to the hospital sustainability account and the difference will be shared

[59] David Green. Compassionate Capitalism. International Agency for the Prevention of Blindness Newsletter January 1997, No. 21

[60] There is high demand for high quality low cost glasses; an estimated 7% of the population is in need of corrective lenses.

between IEF's private investor and IEF Malawi. The portion that goes to IEF Malawi will be invested into establishing spectacle services to the nine districts in the southern region.

The new spectacle shop in Blantyre will be operational by the end of 2003. Once the shop is well established IEF will begin developing plans to extend services to one to two pilot districts, including Nsanje. At Nsanje District Hospital, the existing eye department will be improved by:

- Identification of new space for refraction, providing new equipment (lensometer, trial lens set, ophthalmoscope, visual acuity charts, darkened shades, lights), improving the patient waiting room, establishing display cases, and secure store rooms.
- Identification of a new staff person to organize and counsel patients, and manage sales
- Provide support and training in refraction for the existing Ophthalmic Medical Assistant

The eye department will be provided with a supply of ready-made glasses in the range most commonly prescribed. A prescription that cannot be found among the available inventory will be supplied by the workshop in Blantyre and sent by vehicle or post.

Prices for glasses will be based on the price structure established in Blantyre, ranging from MK500 to MK8,500 ($5 - $100). Purchase of high-end glasses by a small clientel of wealthy individuals in Blantyre subsidizes the lower priced glasses. Although low-end glasses are priced at MK500, the pilot is designed to further cross subsidize those patients, including children, who are too poor to pay.

Also included into the pricing will be a mechanism to generate a small profit from sales to go directly to the District Hospital's sustainability account. The spectacle shop thus has a double bottom line: a new service is created for the district hospital capable of sustaining its own operation, and supporting a new staff person and small improvements; and provides a new service to the public that was not available before, and attempts to serve all segments of the population, including the poor.

IEF will assist the CSMC through a similar business planning process as that undertaken for the cost-ward. IEF will also provide on-going technical assistance, as well as continuous monitoring and evaluation. Best practices and lessons learned will be documented in order to design expansion to other districts in the southern region.

ANNEXES

Annex 1: Response to Reviewer Comments

Annex 2: Report on Knowledge Practice and Coverage Survey

Annex 3: Report on Health Facility Assessment Survey

Annex 4: Report on Community Provider Assessment

Annex 5: Map of Nsanje District

Annex 6: Memorandum of Understanding

Annex 7: Organizational Chart

Annex 8: C.V.s Key persons

Annex 9: Supplemental Training Work Plan

ANNEX 1: Response to Reviewer

Annex 1: Response to application debriefing

1. Strengths and weakness

The following is the International Eye Foundation's response to the DCHA/ PVC Child Survival Application XVIII debriefing Summary for funded FY 2002 projects, required for submission with the Detailed Implementation Plan.

Budget information

The reviewer's concerns are the percentage of time allocated by the Child Survival Coordinator to the project. USAID requires a full time Child survival staff to backstop programs. In previous years, the percentage of time allocated by IEF to an individual child survival project was in the range of 25-33%. However, the number of programs managed by IEF has shrunk over the past three years and consequently the percentage of time allocated by the CS Coordinator was increased to cover costs. Additionally, because IEF has fewer resources at its headquarters and field office, and as the demands for quality programming continue to increase, it is IEF's experience that more time is required to effectively manage such a program. It should be noted, however, that all of the budgeted time in the headquarters budget is split 50:50.

The reviewer's comments regarding "phase out of recurrent costs" is not clearly understood. The project time line is very short (four years) to accomplish essentially a re-organization and re-training of district services. IEF anticipates that an extension period is required beyond the initial four years to solidify the CS activities and prepare the Child Survival Management Committee (CSMC) to maintain service delivery at increased levels. It is unrealistic to expect that recurrent costs for on-going training, supervision, monitoring and evaluation can be maintained by the CSMC without their district budget increased substantially from the government and or from other donor sources. If this is a reviewer concern (legitimately so) it is also surprising that there are no comments made in the sustainability section.

Executive summary

The reviewer's concerns identification of EPI as a separate intervention. Later in the Reviewer comments the concern is whether EPI is an included intervention. Complete vaccination for children and women is a standard intervention included in the project design (HH/C IMCI) and mix of interventions.

Description of PVO

The reviewer's comments concern IEF's rationale for child survival in its Mission. The reviewer comments inaccurately characterize the IEF program in Malawi. IEF is not "transitioning from an eye care focused mission to a child survival focused program," in Malawi. It is clearly stated that IEF undertakes a range of activities in the country that include eye care (hospital sustainability and onchocerciasis control) and child survival projects. IEF was first involved in CS programming in Malawi from 1985-6 with a project focused on reduction of vitamin A deficiency, in which CS

interventions (VAC supplementation, measles vaccination, dietary diversification) were and remain important interventions to reduce Vitamin A Deficiency Disorders (VADD).

Although vitamin A improvement strategies are now standard practice within the domain of CS rather than within the blindness prevention domain (vitamin A deficiency remains the leading cause of childhood blindness worldwide), participation in CS programming has many benefits to IEF including the tremendous learning and focus on monitoring and evaluation. IEF's mix of programs is not unlike many other broad-based multi-disciplinary PVOs, that include health, community development, and microenterprise.

Situational analysis

The reviewer's comments concern omitted detail on statistics related to behavior, infrastructure, and HIV/AIDS. IEF agrees with reviewer comments. At the time of writing the proposal, IEF was not resident in the district and there were no Nsanje specific population based surveys and data to describe coverage, quality of service, and behavioral practices. Data gathering was planned as part of the DIP process and is reflected in the submitted document.

Program approach

The reviewer's comments concern several factors:

Use of per diems: Issues concerning per diem were discussed in the sustainability section and were not mentioned as "an innovative strategy," but instead as a sustainability concern.

World Summit for Children Goals: The World Summit for Children Goals adopted by Malawi were attached in the proposal Annex. The project design addresses each of the WSCG/ Malawi's indicators. The project seeks ultimately to reduce infant and child mortality but will not be able to measure these changes. The project addresses each national objective -- reducing malnutrition rates; increasing micro-nutrient supplement intake deficiency; increase exclusive breastfeeding practices; increase vaccination coverage; improve case management for diarrhea, pneumonia, malaria; and HIV/AIDS behavioral actions. The targets established for the government were reviewed and discussed. Project reporting includes reference to achievement of targets against project objectives and national goals.

Role of supervision of Health Surveillance Assistants (HSAs): The DIP provides detail of the supervision system on all levels.

Child survival interventions

The reviewer's comments concern the omission of some detail in the intervention section. The DIP includes greater detail than the proposal.

Organizational development

The reviewer's comments concern sharing lessons learned with other stakeholders (BIMI). The DIP describes extensive interactions, both informal and formal, related to sharing lessons learned with stakeholders within the district and with other PVOs, NGOs and government and donor institutions.

Sustainability

The reviewer's did not note any concerns in the section. However, other comments made concern the allocation of time of the headquarters Child Survival Coordinator to the project, and a phase out of recurrent costs. Sustainability is a major theme of the project and IEF and the CSMC recognize the complexity and the constraints faced at the district level. Sustainability is defined in multiple dimensions including financially. IEF does not believe that the district, without continued external inputs, can sustain the level of efforts the project will invest, especially in the areas of training. However, the project does anticipate that there will be improvements in health practices, many of which can be maintained with improved coordination and planning. Ultimately, the district cannot control the amount of funding it needs nor manage many of the human resource constraints as the district is dependent on the efficiency of the central government health sector reforms.

Performance monitoring and evaluation

The reviewer's comments concern adjusting indicators. The DIP document describes the extensive reorganization of the Results Framework and corresponding indicators. The DIP also describes adoption of HH/C IMCI, and other monitoring and evaluation tools available in Malawi.

Management plan

The reviewer's comments concern contingency planning and supplemental workplans. Greater detail on contingency planning is included in the DIP. The supplemental workplans contained in the Annexes were included in the proposal to demonstrate the planning processes undertaken necessary to produce the proposal with summary work plans and budgets. Planning software is used to design the hierarchy of objectives and order work plans, identify constraints and develop budgets.

Summary of main points

The DIP incorporates extensive reorganization of the Results Framework to clarify intermediate objectives, define major activities and corresponding indicators that reflect national and internationally accepted standards. The DIP also reflects considerable interaction with in-country technical expertise including learning and technical assistance exchange visits with other PVOs and national secretariats. It should be noted that there are limits to the extent of interactions that can be undertaken by a small project and CSMC staff. Many of the coordination and wider inter-organization learning environments are best addressed by creation of Secretariats and information exchange forums such as those under exploration by CORE Inc.

2. Reviewer comments

The IEF appreciates the extensive and extremely helpful reviewer comments. Due to the extensive comments, the following section is organized by grouping comments under the following headings:

Problem analysis:

Neonatal mortality: The project design did not consider neonatal mortality in the project design. The availability of data on neonatal mortality is not documented at the district hospital. Thus the proportion of neonatal deaths among infants is not known. The new MOHP MHIS is currently in place and the importance of neonatal deaths among the infant population born in the district hospital and maternity wards was discussed with the District Health Office and Chief Matron at the Nsanje District Hospital.

The IEF has contacted Save the Children (SCF), USA implementing the program "Saving Newborn Lives" in Malawi. IEF does not have an intervention addressing maternal health given the concerns of implementing an already ambitious project. However, maternal health, and increased access and practice of safe birth practices is part of the district's Essential Health Package. IEF will assist the CSMC to identify steps needed to determine the problems of maternal and neonatal mortality in the district and assist them to develop a plan that can be managed within their resources. There are no other PVOs and NGOs in the district that can manage this intervention but such participation will be encouraged. However, the Safe Motherhood Project (SMP) is now assisting the district with some inputs and training support.

The situational analysis lacked detail on other problems including micro-nutrient deficiency, immunization status, child care practices, quality of service delivery and the role and functions of traditional healers.

To address remaining information needs, several surveys were conducted and others are planned. A KPC survey, Facility Assessment, and interviews of HSAs, VHCs, and CHVs were conducted to establish baseline data as part of the DIP planning process.

Other surveys are planned to gather further data on/to:

- Observe health worker performance (Phase II of the Facility Assessment) to establish baseline performance indicators, refine supervision and monitoring tools.

- Nutritional practices including Infant and Young Child Feeding (IYCF) practices, food availability, prevalence of adult malnutrition, anemia, and parasites to prepare for introducing the PD/Hearth intervention.

- Qualitative research to develop the behavior change intervention and refine health worker training curriculum, and community and leadership mobilization.

The Reviewers also discuss the lack of data on traditional healers, vendors and other community based actors that were proposed in the Drug Revolving Fund intervention. The IEF agrees with the

reviewer comments that before attempting to initiate DRFs an assessment should be undertaken to determine the potential, clarify the rationale, and determine the feasibility for this approach. Experience with DRFs elsewhere is mixed and concerns remain about quality and cost.

Program approach:

- Immunization: Support for the Expanded Program for Immunization plays a central part of the project design described in the DIP. The proposal lacked clarity on how specific interventions fit within the HH/C IMCI approach.

- Neonatal health: The project has not included neonatal heath due to the short time line (four years), staffing and budget. Additional resources will be required to develop comprehensive approaches and IEF lacks this capacity. Neonatal health will be explored with the CSMC and in-country resources (Safe Motherhood Project and SCF) to determine what can be undertaken within the current project, e.g., clarify the extent of the problem, assist in review of strategies, activities and indicators, establish links to technical resources, prepare proposals, update current technical content and training curriculum, and potentially support training.

Community level:

- Supervision standards: The DIP clarifies the system for supervision and monitoring of health workers. Strengthened supervision includes revising training of health workers based on expected performance indicators, design and use of checklists of performance, including bi-annual observation, and clarification of quality indicators.

- Training: The DIP clarifies how the project will organize and train health workers including Community Health Volunteers (GMVs) that are based on HH/C IMCI and the core interventions (EPI, DCM, ARI, malaria, and nutrition). The project is reviewing existing training materials for the HSAs and CHVs and is considering adapting curriculum and training plans from other PVOs. Currently, the MOHP's training plans for HSAs is broad based and there is no standard training for CHVs. Developing these materials jointly with the CSMC is a major activity of the project. Concerning whether community based staff will handle medical supplies and devises, CHVs will be provided vitamin A and iron tablets, ORT sachets, Fansidar and ITNs, but will not provide antibiotics due to government policy.

- Essential supplies: The Health Facility Assessment evaluated the status of drug supply and inventory. The project is supporting the supply of new weighing scales primarily for HSAs and training of CHVs will include use of watches for timing breathing rates, but is likely to be dependent on a broader definition of "fast breathing" and referral to the health facility for evaluation. The CHV will not treat pneumonia in the community. The design and functioning of DRFs is to be evaluated further before implementing pilot sites.

- Outreach: The mobile EPI outreach activities are discussed in the DIP and play a central role in extending service delivery to communities and maximizing the HSA as a bridge between the MOHP and community.

- Project staff: The IEF staff are intended to complement MOHP staff and there are no plans for these staff to be absorbed by the MOHP. These staff are direct one-on-one counterparts to district staff and provide support for the duration of the project. Currently, there are vacant positions at the district that the project not the CSMC has control over. However, the project includes advocating needs to the local and central government to expedite filling vacancies and the presence of an external project in the District may serve to attract new staff to fill these positions.

- Village based drug sellers: The IEF agrees with the reviewer's comments on assessing the potential and feasibility of Drug Revolving Funds before investing limited project funding. Based on this assessment only a limited number of pilot DRFs are likely to be attempted. Additionally, the project does include distribution of ITNs through health workers recommended by Population Services International.

- Emphasis behaviors: The project design clarifies the role and function of HH/C IMCI and emphasis on key behaviors that form the core for all training, performance standards, and supervision, monitoring and evaluation. In the DIP development process, available documentation on best practices and the literature was researched for this purpose.

Facility level:

- The DIP describes what elements and how HH/C IMCI will be implemented and the indicators for quality that are included for monitoring and evaluation. Standard checklists are not currently available, but are being developed by the CSMC for supervision and monitoring. Improvements to the supervision system is a major thrust of the project.

- HH/C IMCI training will include explicit standards and processes expected to be undertaken by health workers including CHVs.

- The Health Facility assessment identified areas for strengthening logistics and inventory control. Improvements to the system include training, software and increased monitoring and reporting to ensure that no medical supply stock outs occur. The availability and the cost of vehicle maintenance remain an on-going concern.

Child survival interventions:

- Malaria: HSAs will have a small supply of Fansidar and will be trained in the HH/C IMCI assesses, classify, and treatment protocols. CHVs will not be provided a supply of Fansidar but will be trained to educate communities on where to access Fansidar and to counsel families on the recognition of fever in children The training materials for HSAs is being revised and the training for CHVs is underdevelopment.

- ITNs: The project is receiving technical assistance from Population Services International on ITNs and IPT. ITNs are provided on three levels, 1) targeting mothers at a subsidized rate MK50, 2) to communities at a subsidized rate MK100, 3) all population at a commercial rate. Established prices are based on recommendations from PSI. The "sales strategy" was

broadened to include accesses by the general population based on two different prices in order to increase the supply and to determine the amount of revenue that can be generated to self-support the supply. The demand for ITNs is increasing. The initial supply of ITNs will be supported by the project and thereafter by district with support from national programs. Re-treatment of ITNs is organized by providing the re-treatment kits and one-on-one instruction to target families. The CHV is instrumental in reminding and coaching families in how re-treat ITNs. The frequency of re-treated ITNs is monitored during the bi-annual surveys conducted by Zonal Supervisors and HSAs.

- Pneumonia: HSAs will be trained in the HH/C IMCI protocols and will be provided inexpensive stop watches. CHVs will receive similar training but will not be trained to use a timing device. Instead CHVs will be oriented towards a broader less specific definition related to recognition of "difficult breathing and cough" and instructions to immediately refer the child to the HSA or health facility.

- Diarrhea: CHVs will be instructed to assess, classify and treat, and counsel mothers on diarrhea. CHVs will have a supply of ORT packets and will also have orientation to counsel mothers on preparing weak "phala" gruel and soups, and use of the "cleanest water available". Convalescent feeding is also included in the training for HSAs and CHVs. Access to illicit antibiotics in the community is unknown and this question was not investigated in the baseline KPC. However, these questions will be included in future surveys to determine the availability of drugs in the community and their use in self-treatment.

- Nutrition: The project is promoting a range of infant and young child feeding practices (IYCF) and convalescent feeding is a priority. The content of training is under review and training modules are being developed to become standard training for health centers, HSAs, VHCs and CHVs.

Monitoring and evaluation:

The monitoring and evaluation framework was extensively revised based on post-proposal review, reviewer comments, discussions with the CSMC, and through participation in peer discussions (CORE working groups etc). The Results Framework was reorganized and a range of result/outcome and output indicators identified and incorporated into the design. In order to simplify the indicators as much as possible and to ensure the CSMC can routinely measure progress, the KPC 2000+ and Rapid Catch form a basic core for the Result Framework.

ANNEX 2: Baseline KPC Report

IMPROVED CHILD SURVIVAL IN NSANJE DISTRICT, MALAWI THROUGH COMMUNITY BASED INTERVENTIONS AND STRENGTHENING OF THE HEALTH DELIVERY INFRASTRUCTURE

Knowledge, Practice, and Coverage (KPC) Report

Submitted to

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
PVO CHILD SURVIVAL AND HELATH GRANTS PROGRAM

Submitted by

The International Eye Foundation and Nsanje District Health Management Team

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APRIL, 2003

Acknowledgements
The International Eye Foundation and the Nsanje District Health Management Team (DHMT) would like to recognize Christine Witte, PhD, MPH in a special way, without whom this report would not have been completed. Dr. Witte provided valuable contributions and analysis throughout the KPC process.

The team members who implemented the survey are also to be thanked. Supervisors for the KPC survey included: George Mekiseni, Rose Kaliza, W. Mathumula, and Lovemore Mvula. Enumerators included: Medison Matchaya, Chipiliro Tskeka, Jean Masinga, Shadreck Kanjedza, Catherine Demba, B. Tcheleni. A special thank you to the HSAs who participated, facilitating community awareness and introducing the survey teams to villages, namely: Michael Chithetho, Joseph Jackson, and Jacquiline Mamalima.

Finally, a thank you to all IEF and Nsanje District support staff without whose assistance, the survey would not have been successful.

TABLE OF CONTENTS

Executive Summary

The objective of the KPC survey was to determine the caretaker health seeking behaviors and health knowledge, as well as roughly assess the prevalence of childhood disease and malnutrition. The KPC survey will shape the project, providing information on priority areas to improve child survival in Nsanje District.

Nsanje District, in the southern extreme of the Lower Shire Valley, is one of the poorest districts in Malawi and has many of the country's lowest health indicators. Infant and under-five mortality rates in Nsanje are the highest in the nation, while under-five malnutrition is second highest. Unacceptably high and preventable mortality rates from pneumonia, malaria and diarrhea impede child survival.

The KPC survey was developed and designed by IEF in partnership with the Nsanje DHMT (District Health Management Team). The questionnaire was modified to correspond to local terms and language for the people of Nsanje. Members from the DHMT reviewed the survey, and provided comments and suggestions. Several members of the DHMT also participated in data collection.

A total of 299 mothers/caretakers of children age 0-23 months were interviewed. Women's ages ranged from 15 to 45 years. Only 30% of women stated that they could read. Small business activities such as selling farm produce and prepared foods appear to be the most common way women earn money.

At the community level, awareness of general danger signs in children is relatively low. Only 21% of caretakers named two or more danger signs as defined by IMCI. However, 84% of children who had a cough and rapid/difficult respiration in the past 2 weeks were reported to have been taken for treatment.

A reported 78 % of Nsanje's population has access to a clean water source. The majority of clean water (70%) comes from boreholes. Nearly half the respondents stated that the pumps do get repaired within a week of breaking down.

A reported 60% of respondents have access to a pit latrine, although half of these share the latrines. Unfortunately, the unsanitary habit of throwing children's feces into the bush is a practice of over 20% of the respondents. Nearly all mothers wash their children's faces at least once a day. It appears the high rate of functioning boreholes allows for this level of cleanliness.

A total of 69% of mothers claimed they had received at least two TTV injections when pregnant with their last child. Over half of the mothers (51%) reported that their last delivery was assisted at a health center or by hospital personnel. Relatives or older women in villages assist with many deliveries as 49% are carried out at home with only 16% assisted by TBAs.

Practically all women breastfeed their children for 2 years or more with only 1 out of 299 stating that she never breastfed her last child. Exclusive breastfeeding in Nsanje was reported at 55% of children age 0 - 5 months receiving nothing but breast milk in the past 24 hours.

Access to immunization services, as measured by the DPT1 rates, is 88%. Measles immunization rates are 70%, but higher than expected given Nsanje district's isolated location and the serious shortage of health personnel. Mothers who were able to show the enumerators a vaccination card for their youngest child was reported at 91%. A total of 63% of children aged 12-23 months received all required vaccines (e.g. BCG, DPT, OPV and measles).

Almost half of the children surveyed (47%) had diarrhea in the past two weeks. This is most likely related to poor hygiene as indicated in the water/sanitation section. 55% of caretakers gave the child ORS or home fluids although only 31% reported having sought treatment for their child with diarrhea. 22% reported giving some sort of pill to a child with diarrhea.

The prevalence of cough during the past two weeks was 46% and half (almost 45%) reported breathing problems. While 67% of mothers whose children had breathing difficulties sought treatment at a health facility, only 37% sought treatment within 24 hours and 37% waited two days or more.

Malaria in Nsanje district was reported as 61% of children having had malaria in the two weeks preceding the survey and 22% having malaria at the time of the survey.

Awareness of AIDS is high, with 93% of all respondents having heard of AIDS. Abstinence was the most frequently mentioned method of reducing the risk of HIV infection (58%). Equally frequently named was condoms (58%), followed by avoiding sharing razors (24%). Most women were aware that the virus could be transmitted to the baby with 77% stating the virus could be transmitted during pregnancy, 60% during delivery, and 76% through breastfeeding.

About three quarters of the respondents (76%) own land and animals with chickens as the most preferred animal. The main crop is maize at 94%.

62% of mothers reported that their children had been weighed at birth, and 53% had a growth monitoring card and were weighed in the past four months. 11% of children over 6 months received de-worming medicine.

BACKGROUND

Location and Population of Child Survival Project

Nsanje is Malawi's southern most district, bordered by Chikwawa District to the north, Thyolo District to the northeast, and Mozambique to the east. Nsanje is part of the Lower Shire Valley (LSV) at low altitude (100 meters above sea level) with a hot, dry climate. Droughts occur regularly, interspersed with years of good rainfall and years of excessive rain, resulting in serious flooding. Nsanje's population is 194,481, dispersed in 450 villages and nine Traditional Authorities. The population density is 100 per square kilometer.[1] Chichewa, the national language, is spoken in Nsanje and all of southern Malawi.[2] Approximately 33,000 (17%) of the population are children under age five years, and 45,000 (23%) are women of reproductive age (15 – 49 years).

Health & Malnutrition Status

In 2000, the infant mortality rate (191/1,000 births) and under-five mortality rate (385/1,000) were the highest in the nation (national averages: 134/1,000 and 234/1,000, respectively). Between 1992 and 2000, the national maternal mortality rate increased from 1.4 deaths/1000 to 2.4/1000, while the maternal mortality ratio increased from 620/100,000 to 1,120/100,000 (maternal deaths per live births).[3] The birthrate is 6.0 for southern Malawi.[4] With 39% of children underweight (<2 SD weight/age), Nsanje has the second highest malnutrition rate in the nation.[5] Pneumonia is one of the leading causes of death in young children with a 28% national prevalence rate. Diarrhea is another leading cause of death, affecting 17% of children under 5 years-of-age in southern Malawi.[6] HIV/AIDS statistics are also grim, with 65,000 children under 15 years-of-age infected, and AIDS contributing up to an estimated 50% of under 5 mortality in some areas.[7] Malawi has one of the highest infant mortality rates in the world (UNICEF, 1999), and malnutrition undeniably adds to the vicious cycle of disease and death. This section of the report includes background information on the context in which the PVO is working. Examples of relevant information are as follows:

Socioeconomic Characteristics

Nsanje is one of the poorest rural districts in the nation, characterized by limited employment opportunities compared to other districts. Most inhabitants are subsistence farmers or fisherman, the majority of whom live below the poverty line owning less than .5 hectare of arable land. Only 15% of arable land is cultivated due to persistent drought and lack of irrigation systems. Women are the primary caretakers of children and produce much of the food supply. Nsanje's literacy rate is reported at 27% and thought to be lower for women.[8] This has negative implications as education levels have a direct link to health knowledge and health-seeking behaviors in Malawi.[9] The majority of the population is Christian (70%), and the predominant ethnic groups are Manganja (60%) and Sena (30%).

The goal of the project is to reduce infant and child mortality by expanding programs to Nsanje District, Malawi. This will be achieved as the project helps families and caretakers with young children to

[1] Malawi National Census, 1998.
[2] Nsanje District Profile, Malawi Government, July 1998.
[3] IBID.
[4] 2000 Malawi Demographic Health Survey.
[5] Nsanje District Profile, Malawi Government, July 1998.
[6] 2000 Malawi Demographic Health Survey.
[7] Afro-nets. 1997. "AIDS and Child Health."
[8] Nsanje District Profile, Malawi Government, July 1998.
[9] 2000 Malawi Demographic Health Survey.

increase the practice of healthy behaviors and seek medical care from quality sources. Three outputs to be promoted by the project are:

1. Improvement of the District MOHP's management capacity to provide efficient services.
2. Provision and expansion of quality health services and their delivery.
3. Improvement and expansion of community participation supporting community-based health interventions.

Strengthening the District's management capacity will only be achieved if MOHP services and community participation simultaneously improve. These three outputs are synergistic, addressing crosscutting weaknesses at the community, health facility, and health system levels.

The project will address the essential elements of each intervention for malaria, acute respiratory infection, diarrhea, malnutrition and HIV/AIDS by implementing IMCI, including community-based IMCI, as an overall umbrella strategy. A complimentary strategy of prevention of mother-to-child transmission (PMTCT) of HIV/AIDS will also be implemented.

IMCI is recognized by the Ministry of Health as a national strategy. This project will officially implement IMCI for the first time in Nsanje, thus increasing the number of districts practicing IMCI in Malawi. The project recognizes IMCI as a *strategy* to improve child survival interventions, and felt that discussion of IMCI as an overarching strategy as well as an intervention-specific technical guide, was appropriate in this section.

Objective of KPC Survey

The KPC survey's objective was to determine caretaker health seeking behaviors and health knowledge, as well as to roughly assess the prevalence of childhood disease and malnutrition. Information from the KPC will inform the project on priority areas to improve child survival in Nsanje District.

Participatory Process

The KPC survey was developed and designed by IEF in partnership with the Nsanje DHMT (District Health Management Team). The DHMT consists of members of Nsanje District Hospital who are MOHP (Ministry of Health and Population) staff. The questionnaire was modified to correspond to local terms and language used, and pre-survey qualitative information was collected to assist in adapting the KPC survey to Nsanje.

Members from the DHMT reviewed the survey providing comments and suggestions, and several members of the DHMT also participated in data collection. Heavy work schedules and responsibilities restricted DHMT members from fully participating in the data collection and analysis process. Two MOHP supervisors participated in enumerator training.

Methods

The questionnaire was developed with input from several DHMT members. Topics covered in the questionnaire included background socio-economic information, water and sanitation, maternal health, breastfeeding and nutrition, immunizations, diarrhea case management, acute respiratory infections, malaria case management, HIV/AIDS, food security, growth monitoring, and anthropometry. The questionnaire was 13 pages long and took approximately 40 minutes to complete.

The questionnaire was translated into Chichewa, the local language, and then translated back into English to ensure quality control by a different person.

Indicators

IMCI

INDICATOR	DESCRIPTION/DEFINITION
General Medical Care Sought from Trained Clinician *(Doctor, Nurse, Medical Assistant)* *Q.9*	Percentage of respondents who receive general health and/or nutrition information from trained clinician No. of households with response = A or B for Q.9 _____ x 100 Total no. of surveyed households
Maternal Knowledge of Danger Signs for Treatment *Q.10*	Percentage of mothers who correctly identify two or more danger signs indicating child needs treatment No. of mothers of children 0-23 mo. who report at least two of the signs listed in B-H of Q.10 _____ x 100 Total no. of households surveyed

Water and Sanitation

INDICATOR	DESCRIPTION/DEFINITION
Safe Drinking Water *Q.11*	Percentage of households with drinking water from piped water source or covered well No. of households with response = 1, 2, or 3 for Q.11 _____ x 100 Total no. of surveyed households
Sanitary Excreta Disposal *Q.14*	Percentage of households with access to a flush toilet No. of households with response = 2 for Q.14 _____ x 100 Total no. of surveyed households
Hand-Washing Facility *Q.17*	Percentage of households with a special place for hand washing No. of households with response = 1 for Q.17 _____ x 100 Total no. of surveyed households
Presence of Soap at Hand-washing Facility *Q.18*	Percentage of households with a designated hand-washing facility that has soap or other cleansing agent present No. of mothers with response = 1 for Q.18 _____ x 100 Total no. of mothers with responses to Q.18
Maternal Hand Washing *Q.19*	Percentage of mothers who wash their hands before food preparation, before infant/child feeding, after defecation, and after attending to a child who has defecated No. of mothers with responses = B, D, E and F for Q.19 _____ x 100 Total no. of mothers with responses for Q.19

Maternal Health

INDICATOR	DESCRIPTION/DEFINITION
Tetanus Toxoid coverage *Q.23*	Percentage of mothers which children age 0-23 mo. who received at least two tetanus toxoid injections before the birth of their youngest child No. of mothers of children age 0-23 mo. with response = 2 or 3 for Q.23 _____ x 100 Total no. of mothers of children age 0-23 mo. in survey
Birth Attended by a Skilled Health Personnel *(Complying with intl. definition of skilled delivery assistance.)* *Q.24*	Percentage of children 0-23 mo. whose delivery was attended by a skilled health personnel (excluding TBAs) No. of children with response = A or B for Q.24 _____ x 100 Total no. of children aged 0-23 months
Birth Attended by a Skilled Health Personnel *(To document changes in delivery care-seeking.)* *Q.24*	Percentage of children 0-23 mo. whose delivery was attended by a skilled health personnel (including TBAs) No. of children with response = A, B, or C for Q.24 _____ x 100 Total no. of children aged 0-23 months

Breastfeeding and Infant/Child Nutrition

INDICATOR	DESCRIPTION/DEFINITION
Breastfeeding Initiation *Q.26*	Percentage of children aged 0-23 months who were breastfed within the first hour after birth No. of children with response = 1 for Q.26 _____ x 100 Total no. of children aged 0-23 months
Exclusive Breastfeeding Rate *Q.32*	Percentage of infants aged 0-5 months who were fed breastmilk only in the last 24 hours No. of children aged 0-5 months with *only* response = A for Q.32 _____ x 100 Total no. children age 0-5 months
Complementary Feeding Rate *Q.32*	Percentage of infants aged 6-9 months who received breastmilk and solid foods in the last 24 hours No. of children aged 6-9 months with response = A **AND** any of the responses G through M for Q.32 _____ x 100 Total no. children age 6-9 months
Continued Breastfeeding *Q.32*	Percentage of children aged 20-23 months who are still breastfeeding No. of children aged 20-23 months with response = 1 for Q.30 _____ x 100 = Total no. of children aged 20-23 months
Median Duration of Breastfeeding	Age (in months) at which half of all children aged 0-23 months have stopped breastfeeding

Immunizations

INDICATOR	DESCRIPTION/DEFINITION
Vitamin A Coverage *Q.37*	Percentage of children **aged 6-23 months** who received a Vitamin A dose in the last six months (self reported) No. of children aged 6-23 months with response=1 for Q.37 _____ x 100 Total no. of children aged 6-23 months
Possession of Vaccination Card Q.33	Percentage of children aged 0-23 months who have a vaccination card No. of children with response = 1 for Q.33 _____ x 100 Total no. of children aged 0-23 months
EPI Access *Q.34*	Percentage of children aged 12-23 months who received DPT1 No. of children aged 12-23 months with DPT1 vaccine (card-confirmed, Q.34) _____ x 100 Total no. of children aged 12-23 months
Measles Vaccination Coverage *Q.34*	Percentage of children aged 12-23 months who received measles vaccine No. of children age 12-23 months who received measles vaccine according to Q.34 _____ x 100 Total no. of children aged 12-23 months
Drop Out Rate *Q.34*	Percentage of drop-outs between DPT1 and DPT3 (No. of children age 12-23 months who received DPT1 [Q.34]) - (No. of children aged 12-23 months who received DPT3 [Q.34]) _____ x 100 Total no. of children aged 12-23 months who received DPT1 (Q.34)
EPI Coverage I *Q.34*	Percentage of children aged 12-23 months who received BCG, DPT3, OPV3, and measles vaccines before their first birthday No. of children aged 12-23 months with BCG, DPT3, OPV3, and measles (card-confirmed, Q.34) before first birthday _____ x 100 Total no. of children aged 12-23 months with cards

Diarrheal Case Management

INDICATOR	DESCRIPTION/DEFINITION
ORT Use During a Diarrheal Episode *Q.39*	Percentage of children aged 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids (RHF) No. of children with responses B or C for Q.39 _____ x 100 No. of children with response = 1 for Q.38
Increased Fluid Intake During a Diarrheal Episode *Q.40, Q.41*	Percentage of children aged 0-23 months with diarrhea in the last two weeks who were offered more fluids during the illness No. of children with response= 3 for Q.40 or Q.41 _____ x 100 No. of children with response = 1 for Q.38
Increased Food Intake During a Diarrheal Episode *Q.42*	Percentage of children aged 0-23 months with diarrhea in the last two weeks who were offered the same amount or more food during the illness No. of children with response = 2 or 3 for Q.42 _____ x 100 No. of children with response = 1 for Q.38
Care-seeking for Diarrhea	Percentage of children aged 0-23 months with diarrhea in the last two weeks whose mothers sought outside advice or treatment for the illness

INDICATOR	DESCRIPTION/DEFINITION
Q.43	No. of children with response= 1 for Q.43 / No. of children with response = 1 for Q.38 x 100
Maternal Competency in ORS Preparation *Q.46*	Percentage of mothers who can correctly prepare ORS No. of mothers with response= 1 for Q.46 / Total no. of mothers with responses to Q.46 x 100

Acute Respiratory Infections

INDICATOR	DESCRIPTION/DEFINITION
ARI Care-seeking *Q.51*	Percentage of children aged 0-23 months with cough and fast/difficult breathing in the last two weeks who were taken to a health facility or received antibiotics from a DRF No. of children with response =1, 2, 3 or 10 for Q.51 / No. of children with response =1 for Q. 48 x 100

Malaria Case Management

INDICATOR	DESCRIPTION/DEFINITION
Health Facility Care-seeking for Fever *Q.57*	Percentage of children aged 0-23 months with a febrile episode during the last two weeks who were brought to a health facility within 48 hours after the fever began No. of children with response = 1,2, 3 for Q.57 / No. of children with response = 1 for Q.54 x 100
Malaria Prophylaxis During Pregnancy *Q.63*	Percentage of mothers who took anti-malarial medicine to prevent malaria during pregnancy No. of mothers with response = 1 for Q.63 / Total no. of mothers with children aged 0-23 months x 100
Household Bednet Possession *Q.65*	Percentage of children whose mothers report the presence of bednets in the house No. of children aged 0-23 months with response = 1 for Q.65 / Total no. of children aged 0-23 months x 100
Child Bednet Use *Q.66, Q.67*	Percentage of children aged 0-23 months who slept under an insecticide-treated bednet the previous night No. of children with response A for Q.66 **AND** response =1 for Q.67 / Total no. of children aged 0-23 months x 100

HIV/AIDS

INDICATOR	DESCRIPTION/DEFINITION
Maternal Knowledge of HIV Risk Reduction *Q.72*	Percentage of mothers of children 0-23 mo. who cite at least two ways of reducing the risk of HIV infection No. of mothers of children age 0-23 mo. who mention at least two of the responses that relate to safer sex or practices involving blood = A-I, or M for Q.72 _____ x 100 Total no. of mothers with responses to Q.72
Maternal Knowledge of HIV Transmission During Pregnancy *Q.73*	Percentage of mothers of children 0-23 mo. who know that the AIDS virus can be transmitted through: *a. Pregnancy* No. of mothers of children age 0-23 mo. with response = 1 for Q.73a. _____ x 100 Total no. of mothers with responses to Q.73 *b. Delivery* No. of mothers of children age 0-23 mo. with response = 1 for Q.73b. _____ x 100 Total no. of mothers with responses to Q.73 c. Breastfeeding No. of mothers of children age 0-23 mo. with response = 1 for Q.73c. _____ x 100 Total no. of mothers with responses to Q.73
Condom Use *Q.78*	Percentage of mothers of children 0-23 mo. who report using a condom No. of respondents with response = 1 for Q.78 _____ x 100 Total no. of mothers with responses to Q.78
Maternal Knowledge of VCT *Q.84*	Percentage of mothers of children 0-23 mo. who know where to get an HIV/AIDS test No. of respondents with response = A or C for Q.84 _____ x 100 Total no. of mothers with responses to Q.84
HIV/AIDS Testing *Q.87*	Percentage of mothers of children 0-23 mo. who have been tested for HIV/AIDS No. of respondents with response = 1 for Q.87 _____ x 100 Total no. of mothers with responses to Q.87
Prevalence of Prolonged Illness (3 mo. or more) Possibly Resulting in Death *Q.91*	Percentage of respondents with response = 1 for Q.91 _____ x 100 Total no. of mothers with responses to Q.91
Prevalence of Orphans Under 15 yrs. of age *Q.95*	Percentage of respondents with response = 1 for Q.95 _____ x 100 Total no. of mothers with responses to Q.95

Food Security

INDICATOR	DESCRIPTION/DEFINITION
Consumption of Products/Meat of Owned Animals *Q.102*	Percentage of families with animals who consume meat/products of their animals No. of families with response = 1 or 3 of Q.102 _____ x 100 Total no. of families with response = 1 for Q.100
Number of Meals Consumed Daily *Q.105*	Percentage of families who consume three or more meals per day No. of respondents with response = 4 or 5 of Q.105 _____ x 100 Total no. of respondents

Growth Monitoring & Anthropometry

INDICATOR	DESCRIPTION/DEFINITION
Growth Monitoring Card Possession *Q.107*	Percentage of children aged 0-23 months who have a growth monitoring card and were weighed in the past 4 months No. of children aged 0-23 months with response = 1 for Q.107 _____ x 100 Total no. of children with responses to Q.110
Deworming *Q.108*	Percentage of children over 6 months who received deworming medicine in the last six months No. of children over 6 months with response = 1 for Q.108 _____ x 100 Total no. of children aged 6-23 mo.
Percentage Underweight	Percentage of children aged 0-23 months who are less than 2 standard deviations below the median weight-for-age of the reference population [1]
Maternal Undernutrition	Percentage of mothers with a mid-upper arm circumference (MUAC) of <22.5 cm. No. of mothers with MUAC <22.5 cm _____ x 100 Total no. of mothers who were measured

Sampling Design

Nsanje District is traditionally demarcated into seven Traditional Authorities (TAs), namely: Ndamera, Mbenje, Mlolo, Ngabu, Tengani, Malemia, Nyachikadza, Chimombo and Makoko. The KPC survey coordinator generated a list of villages in each TA with their corresponding population size. The cumulative total population of each village was then calculated to form the basis for selecting clusters for the interviews. Thirty clusters were systematically chosen by starting with a random number taken from the serial number of a Malawi Kwacha bill. The village with a population size closest to the random number became the first selected village. To determine the subsequent villages, a sampling frame number was used, chosen by dividing the total population of the district by 30. This number was added to the population of the first village identified to determine the second village. The same process repeated itself until 30 clusters had been identified. For a total list of the 30 clusters and their population, refer to Appendix 1.

A total of 10 households were interviewed per cluster totaling 300 households covered in the survey. Flipping a coin decided which mother would be interviewed in a household with more than one mother who had a child less than two years old, or more than one child less than two years old.

Training

IEF staff and DHMT discussed selection criteria for interviewers and unanimously agreed the following:

a. Enumerators should have the minimum qualification of a Malawi School Certificate of Education obtained in the past two years.
b. Enumerators should preferably not be currently employed by another organization that would require an absence to complete the survey.
c. Health Surveillance Assistants in the Ministry of Health, Nsanje District with at least a Junior Certificate of Education would be considered for the position.
d. All candidates had to be Nsanje residents, fluent in the Sena language and cognizant of Sena cultural norms.

The IEF and DHMT staff also agreed that survey Supervisors had to have the following attributes:

a. Experience with survey administration, having participated in several previous surveys.
b. Be a demonstrated team-player with the confidence and ability to monitor the quality of survey implementation by carefully following guidelines.

Both supervisors and enumerators received KPC survey training. Supervisor training, facilitated by the IEF Survey Coordinator, took two days to complete. The first day's curriculum dealt with theory, namely basic survey design including selection of households, survey protocols, checklist for enumerators and data quality control procedures. Supervisors spent the second day in a village that was not part of the 30 clusters to pretest the questionnaire.

The Survey Coordinator and two supervisors from the MOHP facilitated the enumerator training which took one week to complete. The curriculum covered data collection techniques including how to approach an interviewee and administer the questionnaire, and how to measure the weight, length and arm circumference of children. Enumerators participated in role-plays and on the last day of the training, they participated in a pre-test in the field. At the end of the last day, a question and answer session was held where all problems and questions were clarified.

Data Collection

Each household visit lasted approximately 40 minutes. The survey took ten days to complete. The main constraints associated with data collection were funerals in some communities requiring interview dates to be re-scheduled. Some roads were impassable, requiring survey teams to walk for several hours to reach a village.

To maintain high quality of data collection, supervisors divided themselves among the several enumerators and closely supervised interviews and filling out questionnaires. One supervisor per team also carefully supervised child weighing and measuring ensuring that scales & height boards were always on a flat surface and that instruments were properly calibrated.

Data Analysis

Ms. Linda Khunga, IEF Project Secretary who has previous survey experience, was responsible for data entry. The Survey Coordinator checked data entry quality by randomly choosing 30 questionnaires to check for errors.

Data analysis was completed with the aid of EPI Info. Anthropometric indices were calculated by hand by IEF's Country Director and subsequently double-checked with EPINut.

Results and Discussion

General

A total of 299 mothers/caretakers of children age 0-23 months was interviewed. The women's ages ranged from 15 to 45 years with a mean age of 27 years. The children of the mothers surveyed were 51% boys and 49% girls. All age groups are well represented, consistent with a random sample.

Only 30% of the women stated they could read confirmed by 94% of respondents when asked to read a sentence from a card. In Nsanje District, the majority of mothers appear to live with a husband/partner (88%), and 87% stated that they lived with the father of the child being surveyed.

Only 5% of women stated they do not perform any kind of work outside the home. Small business activities such as selling farm produce and prepared foods appears to be the most common form of earning income for women as more than 2/3 reported involvement in such activities. Other family members including husbands/partners (20%), older children (18%), aunts, grandmothers, in-laws, etc. (30%) assist with taking care of the baby when the mother is away from home. 30% named "nursery school" as a place where the surveyed child received care. However, the survey does not describe the nature of these "nursery schools."

IMCI

At community level, only 21% of caretakers named two or more danger signs as defined by IMCI. 86% of women named high fever in a child as a reason to seek treatment. Vomiting, refusing to eat/drink and being lethargic or "weak" were each reported by approximately 20% of the women. Crying, coughing and diarrhea were frequently named as reasons to seek treatment. Only a relatively few caretakers, however, appeared to appreciate the difference between a cough and fast or difficult breathing. It is encouraging, however, that 84% of the children with a cough and fast/difficult in the last two weeks had been taken to a health facility for treatment. It appears that while fast/difficult breathing in itself is not frequently mentioned as a danger sign, caretakers do recognize the need to seek treatment for children with pneumonia-like symptoms.

About 3/4 of respondents report that they seek treatment at health facilities. However, only 1/3 stated they receive general health and nutrition information from a trained clinician suggesting that health personnel miss opportunities to educate caregivers when sick children are brought to health facilities. The project will improve this situation as health and nutrition education is an important component of the IMCI protocol.

Water and Sanitation

Seventy-eight percent of Nsanje district's population has access to a source of clean water. The majority of clean water (70%) comes from boreholes, with about 2/3 of the respondents stating that the pump has not broken down in the past 2-3 months. Almost half of the respondents state that when the pump breaks down, it usually gets repaired within a week.

Sixty percent of respondents state they have access to a pit latrine, though approximately half of these state they share the latrine with other households. It is likely that after the rainy season, the number drops to below 60%. While the project does not have funds to support construction of more pit latrines, there is a need for health and sanitation education. Over 20% of respondents report leaving the child's feces on the ground or throwing it into the bush. This unsanitary habit will be addressed using appropriate health education messages.

A total of 23% of respondents stated they have a special place for hand washing. However, of this group, the enumerator was able to find a source of water in only 38%, and soap in only 32%. Sixty-two percent of mothers reported washing hands with soap/ash only after urinating/defecating. Only 12% reported washing their hands before preparing food and only 9% before feeding a child. Only 3% named food preparation, infant feeding, defecation and attending to a child who defecated as a reason to wash hands. Clearly, health and sanitation education has the potential for reducing diarrhea prevalence.

Thirty-two percent of mothers reported washing their child's face at least once a day, and 41% claim to wash their child's face three times a day. Of note, the enumerators identified 87% of the children examined had clean faces, i.e. no visible ocular or nasal discharge. The relatively high prevalence of functioning boreholes undoubtedly contributes to this level of cleanliness. One would expect relatively low rates of active trachoma and a survey to confirm this would be highly desirable.

Maternal Health

A total of 69% of mothers claimed they had received at least two TTV injections when pregnant with their last child. This figure however was self-reported, and the introduction of new health passports will assist in corroborating this claim.

Over half of mothers (51%) report that their last delivery was assisted at a health center or by hospital personnel. It can be assumed, therefore, that the remaining 49% of deliveries occurred at home or in the village. A surprisingly low 16% stated they were assisted by a TBA suggesting that relatives or older women in the villages assist with many deliveries. Therefore, the project will not only focus on strengthening the delivery skills of health personnel, it will also target TBAs and women's groups in villages for training in safe birth practices.

Breastfeeding and Nutrition

Nearly all women breastfeed their children with only one out of 299 stating that she never breastfed her last child. Ninety-seven percent of mothers were still breastfeeding at the time of the survey. Of the 3% of women who had stopped breastfeeding, they reported breastfeeding for an average of 17 months prior to ceasing. This figure may not be very meaningful as it is based on only 9 women. With 87% of children age 20-23 months still receiving breast milk, it can be concluded that the majority of women in Nsanje District breastfeed their children for 2 years or more.

A total of 71% of mothers report putting the newborn to the breast within the first hour after delivery and 92% report they give colostrum to the baby. Of children age 0-5 months, 55% are reported to have received nothing but breast milk in the past 24 hours.

Only 74% of children age 6-9 months were reported to have received both breast milk and solid foods in the past 24 hours. These results suggest there may be a delayed onset of supplementary feeding which may contribute to the relatively high rates of low weight-for-age (23.7% of less than 2 SD).

Immunizations

An impressive 91% of mothers were able to show the enumerators a vaccination card for their youngest child and only 3% state they never had a vaccination card. Equally, access to immunization services, as measured by the DPT1 rates, appears to be quite good (88%). As expected, measles immunization rates are lower but at 70%, are still quite good considering the isolated location of Nsanje district and the serious shortage of health personnel. The drop-out rate (i.e. DPT1 rate minus DPT3 rate) is only 12%, further suggesting good access to and use of immunization services.

A total of 63% of children age 12-23 months had received all required vaccines (e.g. BCG, DPT3, OPV3 and measles). Due to problems with the dates in the data file, this report awaits a final tally for exactly how many children were fully vaccinated in their first year.

The vaccination cards showed only 36% of children age 6-23 months with entries for Vitamin A treatment. However, a full 89% of mothers reported that their children had received a vitamin A capsule. It is not clear where the "true" rate falls. This discrepancy suggests that in many cases, vitamin A treatment is not recorded on the vaccination card. And it is likely that during National Immunization Days to which vitamin A distribution has been added, treatment is not recorded. As vitamin A capsules appear quite characteristic, it is likely that most mothers correctly remember their children receiving the vitamin A capsule. It is not likely however, that mothers can remember accurately if a vitamin A capsule was taken within the past six months. It may be more realistic to assume that almost 90% of children age 6-23 months have received a vitamin A capsule at least once in their lives. This is supported by the finding that 38% of mothers recognized that their child had received a vitamin A capsule and that it was not recorded on the vaccination card.

Diarrhea Case Management

Almost half the children surveyed (47%) had diarrhea in the past two weeks. This appears to be very high, especially as November is still in the dry season and rates can be expected to be higher in the rainy season. The results in the water/sanitation section above suggest that poor hygiene is a major contributing factor to the high prevalence of diarrhea.

Only 31% of respondents reported seeking treatment when their child had diarrhea. However, 75% did report giving additional fluids and 55% gave the child ORS or home fluids. Only 49% gave the child the same amount or more to eat and a full 15% appear to have had no food during their last diarrhea episode. The project will focus on this important point in health education messages with the aim of reducing chronic malnutrition.

A total of 52% of all mothers were able to demonstrate correct preparation of ORS. The project will seek to increase this figure as ORT remains the effective and affordable way to manage diarrhea.

Of concern, 22% of children with diarrhea received some sort of pill. Community-based IMCI that focuses on training DRF volunteers, shop keepers, and traditional healers will aim to reduce this dangerous habit.

ARI Case Management

Similar to diarrhea rates, prevalence of cough during the past two weeks was high at 46%. Of the children who had a cough, almost half (45%) were reported to have had problems breathing. While 67% of mothers with children with breathing difficulties sought treatment at a health facility, only 37% sought treatment within 24 hours. A full 37% waited two days or more before seeking treatment. Given the serious risk of pneumonia in children, the need to seek treatment within 24 hrs will be stressed.

The majority of mothers (84%) took their children to a health facility. This suggests that health facility based personnel can and should play an important role in educating caregivers on the importance of treating pneumonia in a timely manner.

Malaria Case Management

Sixty-one percent of children had a fever in the two weeks preceeding the survey and 22% had a fever at the time of the survey. About half the mothers (55%) sought treatment for their febrile children; 42% of those sought treatment within 24 hours; 75% went to a health facility and 19% report having bought drugs at a shop. Of those children brought to a health facility, 86% were brought within the 48 hours after the onset of fever.

The majority of the women (84%) reported taking anti-malarials during their last pregnancy. A total of 75% took Fansidar (SP) which is the drug recommended by the MOHP.

Only 48% of respondents knew that mosquitoes cause malaria, while 29% reported they did not know the cause of malaria. The remainder of respondents were of the common belief that too much sun or rain, getting wet, etc. caused malaria. Only one respondent mentioned witchcraft as the cause.

Only 29% of mothers reported having a mosquito net at home. Of those, 71% said that their youngest child slept under it the previous night. Six percent reported nobody using the net. Of those who have a net at home, 74% reported soaking it in insecticide. This relatively high percentage is likely due to the fact that PSI recently expanded their bed net program to Nsanje District with new nets coming with a bottle of insecticide. It is not known if re-treatment after 6 months takes place. Of all children in the survey, only 17% slept under an insecticide treated bed net. The project will aim to increase the number of children sleeping under an ITN to 60%. The project will focus health education messages on malaria prevention, stressing the importance of re-treating the net every six months.

HIV/AIDS

As in other Malawi districts, awareness of AIDS is high with 93% of all respondents having heard of AIDS. Only 58% of women correctly stated two ways of reducing the risk of HIV infection. It is not clear, however, how much they were prompted to name more than one way. Of the methods reported, abstinence was named most frequently (73%). Other commonly named actions were using condoms (58%) and avoiding sharing razors (24%). Women were also aware of the risk of transmitting the virus to the baby. 77% said the virus could be transmitted during pregnancy, 60% during delivery, and 76% mentioned breastfeeding.

Questions about women's sexual behavior are very sensitive and results are not likely to present the true picture. As expected, 98% reported their last sexual encounter was with their husband/partner who they had been with for many years. None of the women indicated having had sex with a “casual acquaintance” or “another friend”. Only 7% report condom use the last time they had sex. The main reason named for using a condom was “to prevent pregnancy” (37%), followed by “to prevent STIs/HIV” (32%). Almost a quarter of all women (23%) admitted the likelihood that their partner has other sexual partners, while another 23% said they don't know. The remaining 54% stated they did not think their husband has other sexual partners.

Awareness of the possibility of getting tested for HIV appears to be quite high. Sixty-four percent of mothers said they had heard of testing services, and half said that going for a test was a way to find out about HIV status. The main reason stated for getting an HIV test was “if I am sick” (32%), followed by planning to get married (25%) and planning for the future (23%).

While 86% of the mothers knew where to get a test, only 13% reported having gone for a test. Of the relatively small number of women who had been tested (37), only about half (53%) said they had received pre-test counseling. Most women (89%) had received their results and 77% had received post-test counseling.

Sixteen percent of the respondents stated that somebody in their family was seriously sick and/or had died. The age of those either seriously sick or who had died ranged from 2 to 85 years, with a mean age of 27 years. A total of 54% of mothers reported to having received some kind of assistance because of a sick member of the household. The source of assistance was most commonly a relative or friend (71%), followed by religious workers (58%), health personnel (38%) and a community worker/volunteer (29%).

Due to a mistaken skip in the questionnaire, only 27 mothers were correctly asked about orphans, and thus the results are not meaningful.

Food Security

About 3/4 of respondents (76%) own land. Most (53%) have a piece of land about 1.5 to 2 hectares. A similar number (71%) owns animals. The most commonly owned animal was reported to be the chicken (91%). The numbers of chickens range from one to 20, with a mean number of 8 owned. Goats are owned by about half the people who own animals (52%) and the mean number of goats owned is six. Other fairly commonly owned animals are pigs (15%), guinea fowl (13%), and ducks (10%). All people who own animals eat and/or sell them or their products. The main crop grown is maize (94%), followed by sweet potatoes (49%), sorghum (17%), rice (15%) and millet (12%). Cassava, though recently promoted by the government, was only grown by 8% of the respondents.

Even though November is just the beginning of the so-called "Hungry Season", only 35% of respondents reported having had three meals the previous day. Most people (54%) had eaten two meals and 11% had only one meal.

Growth Monitoring

A total of 62% of mothers reported that their children had been weighed at birth. Of all children, 53% had a growth monitoring card and were weighed in the past four months. Only 11% of children over 6 months had received de-worming medicine. A total of 24% of children were found to be less than 2 SD below the median weight-for -age of the reference population, and 16% were less than 3 ST below the median.

Conclusion

Implementing facility and community-based IMCI in Nsanje District will help achieve the project's goal, namely that families and caretakers with young children increase the practice of healthy behaviors and seek medical care from quality sources. Use of IMCI algorithms will strengthen quality assurance and improve overall service delivery in the district. Strengthening community participation in health interventions will also increase demand for quality services.

Results from the KPC demonstrate a need to strengthen key messages with caretakers at the village level. Health and nutrition messages will be developed, using the 17 key IMCI behaviors adopted by the MOHP in Malawi for community use. Key IMCI BCC messages will be shared with Village Health Committees, Growth Monitoring Volunteers, and Traditional Birth Attendants, as well as Traditional Healers and shop-keepers. These community actors will be trained to refer ill children to health facilities. GMVs will also be trained to teach mothers how to recognize key danger signs. Of particular importance will be danger signs of malaria, ARI and diarrhea.

Due to the fact that a high percentage of mothers reported taking a sick child to a health facility for treatment (e.g. 84% of mothers took their child to a health facility for malaria treatment), it will also be important to train health facility personnel in key IMCI BCC messages.

The promotion of vitamin A and ORS will be a very important initiative in the project. Promotion of ITN use will also be critical to reduce endemic malaria rates. Health education about the importance of re-treating bed nets every 6 months will be crucial to ensure effectiveness of ITN use.

Overall, the recognition of danger signs and the practice of healthy behaviors by caretakers will result in increased quality of care at the community level. This combined with increased quality of care at health facilities will reduce childhood morbidity and mortality in Nsanje District.

APPENDIX 1 - LIST OF 30 VILLAGES THAT PARTICIPATED IN THE KPC

Traditional Authority	Village	Estimated Population
Ngabu	Mlamba	478
	Sabawo	93
	Mbesa	179
Malemia	Ndenguma	4649
	Tsandoka	614
	Lampi	106
	Mchacha	695
	Boma	1488
	Kutama	222
	Makhaza	1078
	Nikisi	276
	Ligobwa	590
Chimombo	Mzondola	235
	Tchapo	480
Mbenje	Fulukiya	234
	Kawa	2159
	Tambo	2941
	Ntchenyera	522
	Khembo	961
Tengani	Nyanthumbi	264
	Bithi	453
	Chimwendere	695
	Chikunkhu	874
Mlolo	Nyakhavi	211
	Mwanavumbe	2998
	Msusa	870
	Chinzeti	1214
	Napasha	619
	Mulalama	343
	Yahaduwa	309

APPENDIX 2 – RAPID CATCH INDICATOR RESULTS

Note: Numbering Follows the KPC^{2000} Rapid CATCH Guidelines

Total # of questionnaires: 299

2. Age of Mother: range: 15 – 48 years, mean: 27 years

8. Mothers who reported having received an injection prior to most recent baby's birth to prevent the baby from getting tetanus:

	%
Yes	86% (C.I. = 82-90%)
No	14% (C.I. = 10-18%)

9. Mothers reporting how many TTV injections they received:

	%
Once	20% (C.I. = 15-25%)
Twice	37% (C.I. = 31-43%)
More than twice	43% (C.I. = 37-49%)
Total	100%

10. Persons who assisted mothers during last delivery:

	%
Doctor	12 (C.I. = 8-16%)
Nurse/Midwife	47 (C.I. = 41-53%)
TBA	17 (C.I. = 13-22%)
H.S.A.	1 (C.I. = 0-2%)
Ward Attendant	1 (C.I. = 0-2%)
GMV	1 (C.I. = 0-2%)
Family Member	25 (C.I. = 21-30%)
Other (friends, etc)	10 (C.I. = 6-14%)
No one	3 (C.I. = 0-5%)

11. Mothers who stated they had ever breastfed: 100% (298 out of 299)

12. Mothers stating how soon after birth they put the baby to the breast:

	%
Within one hour of delivery	71% (C.I. = 65-76%)
After the first hour	29% (C.I. = 24-35%)

13. Types of liquids and foods consumed by [child] during past 24 hrs:

Type of Liquid	%
Breastmilk	96% (C.I = 94-98%)
Plain Water	77% (C.I. = 70-80%)
Fruid Juice	14% (C.I. = 10-19%)
Tea, freezies, etc	22% (C.I. = 18-27%)
Non-human milk	5% (C.I. = 3-8%)
Infant formula	2% (C.I. = 0-4%)
Maize, millet, sorghum	66% (C.I. = 60-71%)
Pumpkin,carrot	37% (C.I. = 31-43%)
Green leafy vegetables	12% (C.I. = 9-16%)
Fruit (mango, papaya, guava)	50% (C.I. = 44-56%)
Meat, fish, eggs	27% (C.I. = 22-33%)
Soya, groundnuts, beans	21% (C.I. =17-27%)
Food prepared with oil	15% (C.I. = 11-20%)

14. Children with vaccination card:

	%
Yes, seen by interviewer	91% (C.I. = 87-94%)
Not available/misplaced	7% (C.I. = 4-10%
Never had a card	3% (C.I. = 1-5%)

17. Mothers stating whether they have a bed net at home:

	%
Yes	29%(C.I. = 24=34%)
No	71% (C.I. = 66-76%)

18. Persons with a net at home reported to have slept under a net the previous night:

	%
[Child]	71% (C.I. = 87-94%)
Respondent	76% (C.I. = 65-84%)
Husband/Partner	36% (C.I. = 26-47%)
Other	6% (C.I. = 0-17%
Nobody	6% (C.I. = 0-17%)

19. Bed net was ever soaked or dipped in insecticide:

	%
Yes	74% (C.I. = 64-83%)
No	26% (C.I. = 17-36%)

20. Signs of illness that would prompt mothers to seek treatment for the child:

	%
Looks unwell or not playing	24% (C.I. = 19-29%)
Not eating or drinking	21% (C.I. = 16 –25%)
Lethargic (weak)or difficult to wake	18% (C.I. = 13-23%)
High fever	86% (C.I. = 82%-90%)
Fast or difficult breathing	15% (C.I. = 11-20%)
Vomits everything	16% (C.I. = 12-21%)
Convulsions	1% (C.I. = 0-2%)
Other (crying, diarrhea, coughing, etc)	43% (C.I. = 39-47%)
Don't know	1% (C.I. = 0-2%)

21. Signs of illness [child] had in past two weeks:

	%
Diarrhea	47% (C.I. = 41-52%)
Cough	46% (C.I. = 40-51%)
Difficult/fast breathing (out of those with a cough)	45% (C.I. = 36-54%)
Fever	61% (C.I. = 55 – 67%)

22a. Children who had diarrhea in the past two weeks who were offered less, same amount or more breastmilk to **drink**:

	%
Less	9% (C.I. = 5-16%)
Same	32% (C.I. = 24-40%)
More	58% (C.I. = 49-67%)

22b. Children who had diarrhea in the past two weeks who were offered less, same amount or more fluids other than breastmilk to **drink**:

	%
Less	18% (C.I. = 12-25%)
Same	14% (C.I. = 9-12%)
More	50% (C.I. = 42-59%)
Nothing to drink	17% (C.I. = 11-25%)

23. Children who had diarrhea in the past two weeks who were offered less, same amount or more to **eat**:

	%
Less	36% (C.I. = 28-45%)
Same	15% (C.I.= 10-22%)
More	34% (C.I. = 26-42%)
Nothing	15% (C.I. = 10-22%)

24. Respondents who had ever heard of AIDS:

	%
Yes	93% (C.I. = 90-96%)
No	7% (C.I. = 4-10%)

25. Things a person can do to avoid getting AIDS or the virus that causes AIDS:

	%
Abstain from sex	73% (C.I. = 67-78%)
Use condoms	58% (C.I. = 51-64%)
Stay faithful to one partner	12% (C.I. = 8-17%)
Limit number of sexual partners	18% (C.I. = 14-23%)
Avoid sex with prostitutes	14% (C.I. = 10-19%)
Avoid sex with persons who have many partners	10% (C.I. = 7-14%)
Avoid intercourse with persons of the same sex	3% (C.I. = 1-6%)
Avoid blood transfusions	4% (C.I. = 2-7%)
Avoid injections	2% (C.I. = 1-5%)
Avoid kissing	1% (C.I. = 0-3%)
Avoid mosquito bites	0%
Seek protection from traditional healer	<1% (C.I. = 0-2%)
Avoid sharing razor blades	24% (C.I. = 18-29%)
Have sex with disabled persons	0%
Have sex with children/teens	0%
Avoid breast feeding	14% (C.I. = 10-18%)
Use sterile syringes only	4% (C.I. = 2-7%)
Other	3% (C.I. = 1-6%)
Don't know	1%

26. Times when respondents wash their hands with soap/ash:

	%
Never	17% (C.I. = 13-22%)
Before food preparation	12% (C.I. = 7-16%)
Before feeding children	9% (C.I. = 6-13%
After defecation/urination	61% (C.I. = 55-67%)
After attending to a child who has defecated/urinated	33% (C.I. = 28 –38%)
Other	8% (C.I. = 5-13%)

APPENDIX 3 – KPC SURVEY INDICATORS RESULTS

IMCI

INDICATOR	DESCRIPTION/DEFINITION
General Medical Care Sought from Trained Clinician	Percentage of respondents who receive general health and/or nutrition information from trained clinician = **104/299=35% (C.I. = 29-41%)**
Maternal Knowledge of Danger Signs for Treatment	Percentage of mothers who correctly identify two or more danger signs indicating child needs treatment = **64/299=21% (C.I. = 17-27%)**

Water and Sanitation

INDICATOR	DESCRIPTION/DEFINITION
Safe Drinking Water	Percentage of households with drinking water from piped water source or covered well = **232/299 = 78% (C.I. = 72-82%)** (Note: 70%from borehole)
Sanitary Excreta Disposal	Percentage of households with access to a flush toilet = **8/299 = 3% (C.I. = 1-5%)** (Note: 60% pit latrine)
Hand-Washing Facility	Percentage of households with a special place for hand washing =**69/299 = 23% (C.I. = 18-28%)**
Presence of Soap at Hand-washing Facility	Percentage of households with a designated hand-washing facility that has soap or other cleansing agent present = **22/69 = 32% (C.I. = 21-44%)**
Maternal Hand Washing	Percentage of mothers who wash their hands before food preparation, before infant/child feeding, after defecation, and after attending to a child who has defecated = **8/299 = 3% (C.I. = 1-5%)** (Note: these are the mothers who said "yes" to all four.)

Maternal Health

INDICATOR	DESCRIPTION/DEFINITION
Tetanus Toxoid coverage	Percentage of mothers which children age 0-23 mo. who received at least two tetanus toxoid injections before the birth of their youngest child = **206/299 =69% (C.I. = 63-74%)**
Birth Attended by a Skilled Health Personnel (Complying with intl. definition of skilled delivery assistance.)	Percentage of children 0-23 mo. whose delivery was attended by a skilled health personnel (excluding TBAs) = **153/299 = 51% (C.I. = 45-57%)**
Birth Attended by a Skilled Health Personnel (To document changes in delivery care-seeking.)	Percentage of children 0-23 mo. whose delivery was attended by a skilled health personnel (including TBAs) = **201/299 = 67% (C.I. = 62-73%)**

Breastfeeding and Infant/Child Nutrition

INDICATOR	DESCRIPTION/DEFINITION
Breastfeeding Initiation	Percentage of children aged 0-23 months who were breastfed within the first hour after birth = **210/298 = 71% (C.I. = 65-76%)** (Note: one mother said she never breastfed [child])

Complementary Feeding Rate	Percentage of infants aged 6-9 months who received breastmilk and solid foods in the last 24 hours = **31/42 = 74%** **(C.I. = 58-86%)** DESCRIPTION/DEFINITION
Continued Breastfeeding	Percentage of children aged 20-23 months who are still breastfeeding = **47/52 = 91%** **(C.I. = 79-97%)**
Median Duration of Breastfeeding	Age (in months) at which half of all children aged 0-23 months have stopped breastfeeding: **17 months** (Note: N=9, 97% of mothers said they are currently breastfeeding)

Immunizations

INDICATOR	DESCRIPTION/DEFINITION
Vitamin A Coverage	Percentage of children **aged 6-23 months** who received a Vitamin A dose in the last six months (self reported) = **196/221 = 89%** **(C.I. = 84-93%)** (Note: Based on Analysis of Vaccination cards: 39/222 = 18%)
Possession of Vaccination Card	Percentage of children aged 0-23 months who have a vaccination card = **271/299 = 91%** **C.I. = 87-94%)**
EPI Access	Percentage of children aged 12-23 months who received DPT1 = **132/150=88%** **(C.I. = 82-93%)**
Measles Vaccination Coverage	Percentage of children aged 12-23 months who received measles vaccine **= 105/150 = 70%** **(C.I. = 62-77%)**
Drop Out Rate	Percentage of drop-outs between DPT1 and DPT3 **(132-114)/150 = 12%**
EPI Coverage I	Percentage of children aged 12-23 months who received BCG, DPT3, OPV3, and measles vaccines before their first birthday =**94/150=63%** Note: due to problems with some dates, this figure, (i.e. 63%), represents all children age 12-23 months who received all four vaccines - but not necessarily before their first birthday. Some additional data clean-up is needed to determine full vaccination **before their first birthday**.

Diarrheal Case Management

INDICATOR	DESCRIPTION/DEFINITION
ORT Use During a Diarrheal Episode	Percentage of children aged 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids (RHF) = **77/139 = 55%** **(C.I. = 47 –64%)**
Increased Fluid Intake During a Diarrheal Episode	Percentage of children aged 0-23 months with diarrhea in the last two weeks who were offered more fluids during the illness = **104/137 = 75%** **(C.I. = 67-82%)**
Increased Food Intake During a Diarrheal Episode	Percentage of children aged 0-23 months with diarrhea in the last two weeks who were offered the same amount or more food during the illness = **68/139 = 49%** **(C.I. = 40-58%)**
Care-seeking for Diarrhea	Percentage of children aged 0-23 months with diarrhea in the last two weeks whose mothers sought outside advice or treatment for the illness = **43/139 = 31%** **(C.I. = 23-39%)**
Maternal Competency in ORS Preparat.	Percentage of mothers who can correctly prepare ORS = **155/299 = 52%** **(C.I. = 46-58%)**

Acute Respiratory Infections

INDICATOR	DESCRIPTION/DEFINITION
ARI Care-seeking	Percentage of children aged 0-23 months with cough and fast/difficult breathing in the last two weeks who were taken to a health facility or received antibiotics from a DRF = **51/61 = 84% (C.I. = 72-92%)**

Malaria Case Management

INDICATOR	DESCRIPTION/DEFINITION
Health Facility Care-seeking for Fever	Percentage of children aged 0-23 months with a febrile episode during the last two weeks who were brought to a health facility within 48 hours after the fever began = **146/170 = 86% (C.I. = 80-91%)**
Malaria Prophylaxis During Pregnancy	Percentage of mothers who took anti-malarial medicine to prevent malaria during pregnancy = **251/299 = 84% (C.I. = 79-88%)** (Note: MOH protocol prescribes SP - i.e. not just any anti-malarial. The result for SP is 225/299 = 75%)
Household Bednet Possession	Percentage of children whose mothers report the presence of bednets in the house = **86/299 = 29% (C.I. = 24 – 34%)**
Child Bednet Use	Percentage of children aged 0-23 months who slept under an insecticide-treated bednet the previous night = **51/299 = 17%***

* Note: cannot calculate C.I. for this value. The frequency generated by the computer is 51/64, i.e. out of those children who slept under a net the previous night. The figure "51" was then manually divided by the entire study population, i.e. 299. Therefore, no C.I. was produced.

HIV/AIDS

INDICATOR	DESCRIPTION/DEFINITION
Maternal Knowledge of HIV Risk Reduction	Percentage of mothers of children 0-23 mo. who cite at least two ways of reducing the risk of HIV infection = **150/260 =58% (C.I. = 51-64%)**
Maternal Knowledge of HIV Transmission During Pregnancy	Percentage of mothers of children 0-23 mo. who know that the AIDS virus can be transmitted through: a. Pregnancy =**216/279=77% (C.I. = 72-82%)** b. Delivery = **168/279=60% (C.I. = 54-66%)** c. Breastfeeding =**213/279=76% (C.I. = 71-81)**
Condom Use	Percentage of mothers of children 0-23 mo. who report using a condom = **19/277 = 7% (C.I. = 4-11%)**
Maternal Knowledge of VCT	Percentage of mothers of children 0-23 mo. who know where to get an HIV/AIDS test = **229/279 = 82% (C.I. = 77-86%)**
HIV/AIDS Testing	Percentage of mothers of children 0-23 mo. who have been tested for HIV/AIDS = **37/279 = 13% (C.I. = 10-18%)**
Prevalence of Prolonged Illness (3 mo. or more) Possibly Resulting in Death	= **48/299 = 16% (C.I. = 12-21%)**
Prevalence of Orphans Under 15 yrs. of age	= **10/27 =37% (C.I. = 19-58%)** (Note: only people who answered "yes" to Q.95 were asked this question, i.e. the result is not very meaningful)

Food Security

INDICATOR	DESCRIPTION/DEFINITION
Consumption of Products/Meat of Owned Animals	Percentage of families with animals who consume meat/products of their animals = **211/211 = 100% (C.I. = 98-100%)**
Number of Meals Consumed Daily	Percentage of families who consume three or more meals per day = **105/299 = 35% (C.I. = 30-41%)** (Note: 54% reported two meals/day and 11% one meal/day)

Growth Monitoring & Anthropometry

INDICATOR	DESCRIPTION/DEFINITION
Growth Monitoring Card Possession	Percentage of children aged 0-23 months who have a growth monitoring card and were weighed in the past 4 months = **158/299 = 53% (C.I. = 47-59%)** (Note: 62% mothers reported children were weighed at birth)
Deworming Q.108	Percentage of children over 6 months who received deworming medicine in the last six months = **28/218 = 13% (C.I. = 9-18%)**
Percentage Underweight	Percentage of children aged 0-23 months who are less than 2 standard deviations below the median weight-for-age of the reference population. **39.5%**

APPENDIX 4 – NSANJE DISTRICT KPC QUESTIONNAIRE

*******ALL QUESTIONS ARE TO BE ADDRESSED TO MOTHERS WITH A CHILD LESS THAN 24 MONTHS OF AGE *******

INTERVIEW DATE __/__/__ (DAY/ MONTH/ YEAR)
INTERVIEWER'S NAME _____
SUPERVISOR'S NAME _____
CLUSTER #_____ IDENTITY #:_____
VILLAGE_____/TRADITIONAL AUTHORITY_____

NAME OF THE MOTHER _____ _____

AGE OF THE MOTHER (IN YEARS)

NAME OF YOUNGEST CHILD LESS THAN 24 MONTHS_____ ___

SEX OF CHILD (1=MALE, 2=FEMALE)_____

DATE OF BIRTH__/__/__ (DAY/ MONTH/ YEAR)

AGE OF THE CHILD (IN MONTHS)

BACKGROUND INFORMATON

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1.	For how many years have you attended school?[1] **IF NEVER, REC**	YEARS IN SCHOOL	
2.	Can you read?	YES…… 1 NO……2	➢**4**
3.	**HAVE THE MOTHER READ SENTANCE FROM CARD. IF SHE READS CORRECTLY, CIRCLE 1. IF SHE CAN NOT READ IT, CIRCLE 2**	READ CORRECTLY……1 READ INCORRECTLY/COULD NOT……..2	
4.	Does (*NAME'S)* biological father live in this household?	YES…… 1 NO…… 2	
5.	Who is the head of this household?	MOTHER (RESPONDENT)…… 1 HUSBAND/ PARTNER…… 2 FEMALE RELATIVE (specify)_____ 3 MALE RELATIVE (specify)_____ 4 OTHER (specify) _____ 5	
6.	Do you work outside of the home to earn money? **IF NO**, CIRCLE "A" (NO OUTSIDE WORK) **IF YES**, What kind of work do you do? **RECORD ALL MENTIONED**	NO OUTSIDE WORK…….. A HANDICRAFTS…… B TEMPORARY LABOR…… C SELLING FOODS…… D SHOP KEEPER/STREET VENDOR…… E SERVANT/HOUSEHOLD WORKER…… F SALARIED WORKER…… G SELLING FIREWOOD…… H OTHER (specify)_____ I	➢**8**
7.	Who usually takes care of (*NAME)* when you are away from home?	MOTHER (RESPONDENT)……1 HUSBAND/PARTNER…… 2 OLDER CHILDREN…… 3 OTHER RELATIVES (specify)_____4 NEIGHBORS/FRIENDS…….. 5 MAID……6 NURSERY SCHOOL……7 OTHER (specify)_____ 8	
9.	Where do you get general information or advice on health or nutrition? **RECORD ALL MENTIONED.**	DOCTOR/CO/MA/CO/MA……..A NURSE……...B TRADITIONAL BIRTH ATTENDANT……..…..C	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
		HEALTH SURVEILLANCE ASSISTANT……..D GROWTH MONITORING VOLUNTEER ……..E HUSBAND/PARTNER…….... F MOTHER/MOTHER-IN-LAW……G SISTER……..H GRANDPARENT……...I AUNT……..J UNCLE……...K FRIEND/NEIGHBOR……L TRADITIONAL HEALER……M VILLAGE ELDER……N OTHER (specify)_____O	
10.	Sometimes children get sick and need to receive care or treatment for illnesses. What are the signs of illness that would indicate your child needs treatment? **DO NOT PROMPT. RECORD ALL MENTIONED.**	DON'T KNOW……..…A LOOKS UNWELL OR NOT PLAYING NORMALLY……..…B NOT EATING OR DRINKING……..…C LETHARGIC OR DIFFICULT TO WAKE……D HIGH FEVER……..E FAST OR DIFFICULT BREATHING……...F VOMITS EVERYTHING……G CONVULSIONS……..…H OTHER (specify)_____ J	

WATER AND SANITATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
11.	**First I would like to ask some questions about your household.** What is the main source of drinking water for members of your household?	BOREHOLE…… 1 PROTECTED WELL/SPRING …….…... 2 TAP…….. 3 OPEN WELL…….. 4 SPRING/RIVER/STREAM/POND……...5 RAINWATER……..6 OTHER(specify)_____ 7	➢**14** ➢**14** ➢**14** ➢**14** ➢**14** ➢**14**
12.	Has the pump been broken down in the past 2-3 months?	YES…… 1 NO…… 2 DON'T KNOW…… 9	
13.	How long does it take to repair your borehole/pump when it breaks down?	ONE DAY…… 1 LESS THAN A WEEK…….. 2 MORE THAN A WEEK…… 3 ONE MONTH OR MORE…….. 4 OVER SIX MONTHS……5 OTHER (specify)_____6	
14.	What kind of toilet facility do most members of your household use?	PIT LATRINE……1 FLUSH TOILET ……2 NO FACILITY/BUSH/FIELD…… 3 OTHER(specify)_____ 4	➢**16**
15.	Do you share this facility with other households?	YES…… 1 NO……2	
16.	What happens with the stools of babies and young children in your household who do not use the toilet facility?	THROWN IN TOILET/LATRINE…….. 1 BURIED IN YARD…… 2 LEFT ON THE GROUND…….. 3 GIVEN TO DOGS/PIGS TO EAT…… 4 OTHER(specify)_____ 5	
17.	Does your household have a special place for hand washing?	YES……1 NO……2	➢**19**
18.	**ASK TO SEE THE PLACE USED MOST OFTEN FOR HAND WASHING AND OBSERVE IF THE FOLLOWING ITEMS ARE PRESENT**	**YES NO** WATER/TAP 1 2 SOAP/ASH/CLEANSING AGENT 1 2 BASIN 1 2 NOT AVAILABLE 1 --	
19.	When do you wash your hands with soap/ash? **RECORD ALL MENTIONED.**	NEVER……A BEFORE FOOD PREPARATION……B BEFORE EATING……..C BEFORE FEEDING CHILDREN……D AFTER URINATING/DEFECATING……E AFTER ATTENDING TO A CHILD WHO HAS URINATED/DEFECATED……..F OTHER(specify)_____G	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
20.	How often is your child's face washed?	NEVER……1 ONCE A DAY……2 TWICE A DAY……3 THREE TIMES A DAY……4 DON'T KNOW……5 OTHER(specify)_____6	
21.	**OBSERVE THE CHILD'S FACE.** **A CLEAN FACE (1) IS THE ABSENCE OF "SLEEP" (OR OCULAR DISCHARGE) AROUND THE EYES & THE ABSENCE OF NASAL DISCHARGE ON THE UPPER LIP OR CHEEKS.** **IF ANY SIGN OF SLEEP OR DISCHARGE IS PRESENT THE FACE IS CONSIDERED "UNCLEAN"(2).**	CLEAN FACE……1 UNCLEAN FACE… ……2	
	MATERNAL HEALTH		
22.	Before you gave birth to (*NAME)* did you receive an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES…… 1 NO…… 2 DON'T KNOW…… 9	
23.	How many times did you receive such an injection?	ONCE……1 TWICE……2 MORE THAN TWO TIMES……3 DON'T KNOW……4	
24.	Now I would like to ask you about the time when you gave birth to *(NAME*). Who assisted you with (*NAME'S*) delivery? **RECORD ALL MENTIONED**	DOCTOR/CO/MA……A NURSE……B TRADITIONAL BIRTH ATTENDANT……C HEALTH SURVEILLANCE ASSISTANT……D GROWTH MONITORING VOLUNTEER ……E HUSBAND/PARTNER……F MOTHER/MOTHER-IN-LAW……G SISTER……H GRANDPARENT……I AUNT……J UNCLE……K FRIEND/NEIGHBOR……L TRADITIONAL HEALER……M VILLAGE ELDER……N OTHER (specify)_____ O	
	BREASTFEEDING AND NUTRITION		
25.	Did you ever breastfeed *(NAME*)?	YES……1 NO……2	➢ **32**
26.	How long after birth did you first put (*NAME*) to the breast?[1]	WITHIN FIRST HOUR AFTER DELIVERY……1 AFTER THE FIRST HOUR……2	
27.	During the first three days after delivery, did you give *(NAME*) the liquid that came from your breasts?	YES……1 NO……2 DON'T KNOW……9	
28.	During the first three days after delivery, did you give *(NAME*) anything else to eat or drink apart from breastmilk?	YES……1 NO……2 DON'T KNOW……9	➢ **30** ➢ **30**
29.	What did you give (*NAME*)? Anything else? **RECORD ALL MENTIONED.**	MILK (OTHER THAN BREAST MILK) ……A PLAIN WATER……B SUGAR OR GLUCOSE WATER……C GRIPE WATER……D SUGAR-SALT-WATER SOLUTIION..……E FRUIT JUICE…… F INFANT FORMULA……G TEA/INFUSIONS……H HONEY……I OTHER(specify)_____J	
30.	Are you currently breastfeeding (*NAME*)?	YES……1 NO……2	➢ **32**
31.	For how long did you breastfeed *(NAME*)? **IF LESS THAN ONE MONTH, RECORD '00' MONTHS.**	MONTHS	
32.	Now I would like to ask you about the types of liquids [*NAME*] drank yesterday during the day and at night.[3]		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	Did *[NAME]* drink any of the following liquids yesterday during the day or at night? PLACE A CHECK MARK IN BOX IF CHILD DRANK THE LIQUID IN QUESTION.		
A	Breastmilk?	A……	
B	Plain water?	B.....	
C	Commercially produced infant formula?	C.....	
D	Any other milk such as tinned, powdered, or fresh animal milk?	D……..	
E	Fruit juice?	E.....	
F	Any other liquids such as sugar water, tea, friezzes, coffee, soft drinks, or soups (e.g. tomato soup = chaya)?	F.....	
	Now I would like to ask you about the types of foods[4] *[NAME]* ate yesterday during the day and at night. Did *[NAME]* eat any of the following foods yesterday during the day or at night? PLACE A CHECK MARK IN BOX IF CHILD ATE THE FOOD IN QUESTION.		
G	Nsima (millet/sorghum), Porridge (millet/sorghum/rice), soup (millet/rice), and/or African bread (millet)?	G……..	
H	Pumpkin and/or carrots?	H.....	
I	Any green leafy vegetables?	I	
J	Mango, papaya, and/or guava?	J.....	
K	Meat, poultry, fish, and/or or eggs?	K.....	
L	Soybeans, pulses, ground nuts, and/or likuniphala (soya)	L	
M	Any food made with oil, fat, or butter?	M	

IMMUNIZATIONS

33.	Do you have a card where (*NAME'S)* vaccinations are written down? IF YES: May I see it please?	YES, SEEN BY INTERVIEWER……1 NOT AVAILABLE/LOST/MISPLACED……2 NEVER HAD A CARD……3 DON'T KNOW……9	➢ **36** ➢ **36** ➢ **36**
34.	COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD. **WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.**		
	DAY **MONTH** **YEAR** **BCG** **(for formatting purposes spaces were deleted in this section.)** **POLIO 0** **POLIO 1** **POLIO 2** **POLIO 3** **DPT 1/HEP/HIB** **DPT 2/HEP/HIB** **DPT 3/HEP/HIB** **MEASLES** VITAMIN A		
35.	Has (*NAME*) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign?	YES……1 NO……2 DON'T KNOW……9	➢ **37** ➢ **37** ➢ **37**

36.	Did (*NAME*) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES……1 NO……2 DON'T KNOW……9	
37.	Did (*NAME*) receive a vitamin A dose like this during the last 6 months? **SHOW VITAMIN A CAPSULE.**	YES……1 NO……2 DON'T KNOW……9	

DIARRHEA CASE MANAGEMENT

38.	Has (*NAME*) had diarrhea in the last 2 weeks?	YES……1 NO……2 DON'T KNOW……9	➢ **46** ➢ **46**
39.	What was given to treat the diarrhea? Anything else? **RECORD ALL MENTIONED.**	NOTHING……A FLUID FROM ORS PACKET……B HOME-MADE FLUID……C PILL OR SYRUP……D INJECTION……E (IV) INTRAVENOUS……F HERBAL MEDICINES……G SOFT DRINKS……H OTHER (specify)_____ I	
40.	When (*NAME*) had diarrhea, did you breastfeed him/her less than usual, about the same amount, or more than usual?	LESS……1 SAME……2 MORE……3 CHILD NOT BREASTFED……4 DON'T KNOW……9	
41.	When (*NAME*) had diarrhea, was he/she offered less than usual to drink, about the same amount, or more than usual to drink (a liquid other than breastmilk)?	LESS……1 SAME……2 MORE……3 NOTHING TO DRINK……4 DON'T KNOW……9	
42.	Was *(NAME*) offered less than usual to eat, about the same amount, or more than usual to eat?	LESS……1 SAME……2 MORE……3 NOTHING TO DRINK……4 DON'T KNOW……9	
43.	Did you seek advice or treatment from someone outside of the home for (*NAME'S*) diarrhea?	YES……1 NO……2	➢ **46**
44.	Where did you first go for advice or treatment? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOSPITAL……A HEALTH CENTER……B HEALTH POST……C SHOP……D PHARMACY……E OTHER HEALTH FACILITY (specify)_____F TRADITIONAL HEALER……G HEALTH SURVEILLANCE ASST……H COMMUNITY HEALTH VOLUNTEER (GMV, TBA) ……I COMMUNITY DISTRIBUTOR/DRF……J FRIEND/RELATIVE……K OTHER (specify)_____ L	
45.	Who decided that you should go there for (*NAME'S*) illness? **RECORD ALL MENTIONED.**	RESPONDENT……A HUSBAND/PARTNER……B RESPONDENT'S MOTHER……C MOTHER-IN-LAW……D FRIENDS/NEIGHBORS……E OTHER RELATIVES……F OTHER (specify)_____G	

46.	Have you heard of ORS? **IF NO,** CIRCLE 3 (NEVER HEARD OF ORS). **IF YES,** ASK MOTHER TO DESCRIBE ORS PREPARATION FOR YOU. **ONCE MOTHER HAS PROVIDED A DESCRIPTION, RECORD WHETHER SHE DESCRIBED ORS PREPARATION CORRECTLY OR INCORRECTLY.** **CIRCLE 1 [CORRECTLY] IF THE MOTHER MENTIONED THE FOLLOWING:** • **USE 1 LITER OF CLEAN DRINKING WATER (1 LITER= 3 COCA COLA BOTTLES)** • **USE THE ENTIRE PACKET** • **DISSOLVE THE POWDER FULLY**	DESCRIBED CORRECTLY ..... 1 DESCRIBED INCORRECTLY ..... 2 NEVER HEARD OF ORS 3	

ACUTE RESPIRATORY INFECTIONS

47.	Has (*NAME*) had an illness with a cough at any time in the last two weeks?	YES……1 NO……2 DON'T KNOW……9	➢ **54** ➢ **54**
48.	When (*NAME*) had an illness with a cough, did he/she have trouble breathing or breathe faster than usual with short, fast breaths?	YES……1 NO……2 DON'T KNOW……9	➢ **54** ➢ **54**
49.	Did you seek advice or treatment for the cough/fast breathing?	YES……1 NO……2	➢ **53**
50.	How long after you noticed *(NAME's*) cough and fast breathing did you seek treatment?	SAME DAY……0 NEXT DAY……1 TWO DAYS……2 THREE OR MORE DAYS……3	
51.	Where did you go for advice or treatment? **IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE.** _____ (NAME OF PLACE)	HOSPITAL……1 HEALTH CENTER……2 HEALTH POST……3 SHOP……4 PHARMACY……5 OTHER HEALTH FACILITY (specify)_____6 TRADITIONAL HEALER……7 HEALTH SURVEILLANCE ASST……8 COMMUNITY HEALTH VOLUNTEER (GMV, TBA) ……9 COMMUNITY DISTRIBUTOR/DRF……10 FRIEND/RELATIVE……11 OTHER (specify)_____ 12	
52.	Who decided that you should go there for (*NAME'S*) illness? **RECORD ALL MENTIONED.**	RESPONDENT……A HUSBAND/PARTNER……B RESPONDENT'S MOTHER……C MOTHER-IN-LAW……D FRIENDS/NEIGHBORS ……E OTHER RELATIVES……F OTHER (specify)_____G	
53.	Which medicines were given to (*NAME*) in the home (***before*** going to the health facility if you went to a health facility)? **RECORD ALL MENTIONED.**	NOTHING……A ASPIRIN/CAFENOL……B PANADOL/PARAPAIN……C AMOXICILLIN……D ERYTHROMYCIN……E CONJEX SYRUP……F GOODMORNING LUNGTONIC……G DON'T KNOW……H OTHER (specify)_____ I	

MALARIA CASE MANAGEMENT

54.	Has (*NAME*) been ill with fever in the last two weeks?	YES……..…… 1 NO……..…… 2 DON'T KNOW…..…….. …9	➢ **62** ➢ **62**
55.	Does (*NAME*) have a fever now?	YES……..…… 1 NO……..…… 2 DON'T KNOW…..…….. …9	
56.	Did you seek advice or treatment for (*NAME'S*) fever?	YES……..…… 1 NO……..…… 2	➢ **62**
57.	Where did you go for advice or treatment? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOSPITAL……..…… 1 HEALTH CENTER……..…… 2 HEALTH POST……..…… 3 SHOP…… 4 PHARMACY……5 OTHER HEALTH FACILITY (specify)_____ 6 TRADITIONAL HEALER…….. .7 HEALTH SURVEILLANCE ASST……8 COMMUNITY HEALTH VOLUNTEER (GMV, TBA) …… 9 COMMUNITY DISTRIBUTOR/DRF……..……..10 FRIEND/RELATIVE……11 OTHER (specify)_____ 12	
58.	How long after you noticed *(NAME'S)* fever did you seek treatment from that person/place?	SAME DAY…… (NEXT DAY……1 TWO DAYS……..2 THREE OR MORE DAYS……..3	
59.	Who decided that you should go there for (*NAME'S*) illness? **RECORD ALL MENTIONED.**	RESPONDENT……..A HUSBAND/PARTNER……..B RESPONDENT'S MOTHER……C MOTHER-IN-LAW……..D FRIENDS/NEIGHBORS ……E OTHER RELATIVES……..F OTHER (specify)_____G	
60.	Was *(NAME)* treated with any medicine(s) at home (***before*** going to the health facility if you went to a health facility)?	YES……..…… NO……..…… … DON'T KNOW…..…….. ……9	➢ **62** ➢ **62**
61.	Which medicines were given to *(NAME)* for his/her fever? RECORD ALL MEDICINES THAT WERE GIVEN. IF MOTHER IS UNABLE TO RECALL DRUG NAME(S), ASK HER TO SHOW THE DRUG(S) TO YOU. IF SHE IS UNABLE TO SHOW YOU THEM, SHOW HER TYPICAL ANTI-MALARIALS AND HAVE HER IDENTIFY WHICH WERE GIVEN. FOR EACH *ANTI-MALARIAL* MEDICINE ASK: How long after the fever started did (*NAME*) start taking the medicine? CIRCLE THE APPROPRIATE CODE. CODES: SAME DAY = 0 NEXT DAY AFTER THE FEVER = 1 TWO DAYS AFTER THE FEVER = 2 THREE OR MORE DAYS AFTER THE FEVER = 3 DON'T KNOW = 9	**ANTI-MALARIAL DRUGS** A. CHLOROQUINE ..... 0 1 2 3 9 B. FANSIDAR/NOVIDAR... 0 1 2 3 9 C. QUININE..... 0 1 2 3 9 **OTHER DRUGS** E. ASPIRIN/CAFENOL F. PANADOL/PARAPAIN G. CO-TRIMOXAZOLE H. UNKNOWN DRUG X. OTHER(specify)_____	
62.	What causes malaria? RECORD ALL MENTIONED. Anything else?	MOSQUITO BITES ……... A WITCHCRAFT…… B BLOOD TRANSFUSIONS ……C INJECTIONS ……..I SHARING RAZORS/BLADES ……..E KISSING……... SOAKED IN RAIN/COLD WEATHER……..G DON'T KNOW……I	

	RECORD ALL MENTIONED.	OTHER (specify)_____ I	
63.	When you were pregnant with (*NAME*), did you take any drugs to prevent you from getting malaria?	YES…… NO…….. DON'T KNOW…..…….. …….. 9	➢ **65** ➢ **65**
64.	Which drug did you take? RECORD ALL MENTIONED.	FANSIDAR…… A CHLOROQUINE…… B UNKNOWN DRUG……C OTHER (specify)_____ D	
65.	Do you have any bednets in your house?	YES……..1 NO……..2 DON'T KNOW…..……..9	➢ **70** ➢ **70**
66.	Who slept under a bednet last night? **RECORD ALL MENTIONED.**	CHILD (NAME) ……..……A MYSELF……..…B HUSBAND/PARTNER……....C OTHER (specify)_____ D	
67.	Has the bednet ever been soaked or dipped in a liquid to repel mosquitoes or bugs?	YES……..1 NO……..2 DON'T KNOW…..……9	➢ **69** ➢ **69**
68.	How long ago was the bednet [ ][ ] soaked or dipped? **RECORD ANSWER IN MONTHS** **(LESS THAN 1 MONTH = 00)**	MONTHS ..... DON'T KNOW……9	
69.	Have you or someone else in your house ever washed the bednet? **IF NO, RECORD 00/ IF YES, RECORD NUMBER OF TIMES**	NUMBER OF TIMES …….. DON'T KNOW……9	

HIV/AIDS

70.	I have a few more questions that I would like to ask you. Some of them ask about personal and sensitive subjects, so I want to remind you that you do not have to answer any question that you do not want to. Have you ever heard of an illness called AIDS *(or the local term for AIDS)*?	YES……..……1 NO……2	➢ **93**
71.	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES……1 NO……..2 DON'T KNOW…..……9	➢ **73** ➢ **73**
72.	What can a person do? Anything else? **RECORD ALL MENTIONED.**	ABSTAIN FROM SEX ……A USE CONDOMS ……B STAY FAITHFUL TO ONE PARTNER..……C LIMIT NUMBER OF SEXUL PARTNERS..…..D AVOID SEX WITH PROSTITUTES ……E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS ……F AVOID INTERCOURSE WITH PERSONS OF THE SAME SEX ……G AVOID BLOOD TRANSFUSIONS ……H AVOID INJECTIONS……I AVOID KISSING ……J AVOID MOSQUITO BITES ……K SEEK PROTECTION FROM TRADITIONAL HEALER……L AVOID SHARING RAZORS, BLADES……M HAVE SEX WITH DISABLED PERSON……N HAVE SEX WITH CHILDREN/TEENS……O DON'T KNOW……P OTHER (specify)_____ Q	
73.	Can the virus that causes AIDS be transmitted from a mother to a child: During pregnancy? During delivery? During breastfeeding?	YES NO DON'T KNOW DURING PREGNANCY 1 2 9 DURING DELIVERY 1 2 9 DUR. BREASTFEEDING 1 2 9	
	If a mother is infected with the AIDS virus, is there any way to avoid		

74.	transmission to the baby?	YES……1 NO……2 DON'T KNOW……9	
75.	When was the last time you had sexual intercourse? **CIRCLE THE APPROPRIATE NUMBER (DAYS, WEEKS, MONTHS, OR YEARS)**	DAYS AGO……1 WEEKS AGO……2 MONTHS AGO……3 YEARS AGO……4	
76.	What is your relationship to the man with whom you last had sex?	HUSBAND……1 BOYFRIEND……2 OTHER FRIEND……3 CASUAL ACQUAINTANCE……4 RELATIVE……6 OTHER (specify) _____ 7	
77.	For how long have you had a sexual relationship with this man? **CIRCLE THE APPROPRIATE NUMBER (DAYS, WEEKS, MONTHS, OR YEARS)**	DAYS……1 WEEKS……2 MONTHS……3 YEARS……4	
78.	The last time you had sexual intercourse, did you use a condom?	YES……1 NO……2	➢ **80**
79.	What was the main reason you used a condom on that occasion?	TO PREVENT STIS/HIV……1 TO PREVENT PREGNANCY……2 TO PREVENT BOTH STIS/HIV AND PREGNANCY……3 DOESN'T TRUST PARTNER……4 PARTNER INSISTED……5 DON'T KNOW……6 REFUSED TO ANSWER……7 OTHER (specify)_____...8	
80.	Do you think your partner has other sexual partners?	YES……1 NO……2 DON'T KNOW……9	
81.	Have you had sex with anyone else in the last 12 months?	YES……1 NO……2	➢ **83**
82.	The last time you had sexual intercourse with this other man, did you use a condom?	YES……1 NO……2 DON'T KNOW……9	
83.	How can a person find out if he or she has HIV (the virus that causes AIDS)? **RECORD ALL MENTIONED.**	GO FOR TEST……A GO TO HEALTH FACILITY……B GO TO COUNSELLING/TESTING FACILITY……C DON'T KNOW……D OTHER (specify)_____ E	
84.	Have you heard of an HIV/AIDS counseling and testing service?	YES……1 NO……2 DON'T KNOW……9	
85.	What do you think are the reasons to get an HIV/AIDS test? **RECORD ALL MENTIONED.**	MARRIAGE……A FAMILY PLANNING……B PLAN FOR THE FUTURE……C PROTECT PARTNER……D PROTECT CHILD……E IF I'M SICK……F IF I'VE LOST A LOT OF WEIGHT……G DON'T KNOW……H OTHER(specify)_____ I	
86.	If you wanted an HIV/AIDS test, where would you go? **RECORD ALL MENTIONED.**	HOSPITAL……A HEALTH CLINIC……B VCT CENTER……C DON'T KNOW……D OTHER (specify)_____ E	
87.	Would you talk to your partner/spouse before having an HIV/AIDS test?	YES……1 NO……2 DON'T KNOW……9	
88.	Would you tell your partner/spouse the results of an HIV/AIDS test?	YES……1 NO……2 DON'T KNOW……9	

89.	Have you ever been tested for HIV/AIDS?	YES……1 NO……2 DON'T KNOW……9	➢ **93** ➢ **93**
90.	Did you receive counseling before getting tested?	YES……1 NO……2 DON'T KNOW……9	
91.	I don't need to know the actual results of your HIV/AIDS test, but did you receive the results?	YES……1 NO……2 DON'T KNOW……9	➢ **93** ➢ **93**
92.	Did you receive counseling after getting your results?	YES……1 NO……2 DON'T KNOW……9	
93.	Think back over the past 12 months. Has anyone in your household, including yourself, been very sick or bedridden for a period of more than three months, or has anyone <u>died</u> after being sick for more than three months?	YES 1 NO 2 DON'T KNOW 9	 ➢ **100** ➢ **100**
94.	How old was/were the people who were sick or who died? **ENTER AGES FOR ALL WHO HAVE BEEN SICK OR WHO HAVE DIED AFTER A LONG ILLNESS** **IF THE PERSON IS LESS THAN ONE YEAR, ENTER MONTHS OF AGE AT TIME OF DEATH** [__|__].[__|__] # YEARS. # MONTHS	[__|__].[__|__]…1 [__|__].[__|__]…2 [__|__].[__|__]…3 [__|__].[__|__]…4 [__|__].[__|__]…5 [__|__].[__|__]…6	
95.	Did your household receive any help or care from outside the household because of the sick person? By care, I mean medical care or counseling, money, childcare, food, transportation or some other kind of help.	YES 1 NO 2 DON'T KNOW 9	 ➢ **100** ➢ **100**
96.	For the sick person, did your household receive help or care from: A. Anyone from a hospital or health center? B. A relative or friend? C. A religious worker or religious organization? D. Any other community group or organization or worker? E. OTHER (specify) _____	**YES NO DON'T KNOW** 1 2 9 1 2 9 1 2 9 1 2 9	
97.	Is there an orphan under the age of 15 years living in this house?	YES……1 NO……2	➢ **100**
98.	Did your household receive any help or care from outside the household because of the presence of an orphan in the house? By care, I mean medical care or counseling, money, childcare, food, transportation or some other kind of help.	YES 1 NO 2 DON'T KNOW 9	 ➢ **100** ➢ **100**
99.	For the orphan, did your household receive help or care from: A. Anyone from a hospital or health center? B. A relative or friend? C. A religious worker or religious organization? D. Any other community group or organization or worker? E. Any other place or person F. OTHER (specify) _____	YES NO DON'T KNOW 1 2 9 1 2 9 1 2 9 1 2 9 1 2 9	

	FOOD SECURITY		
100	Does your family own/rent land for farming?	YES……1 NO……2 DON'T KNOW……9	
101	How much land do you own/rent? **[NOTE: IF MOTHER HAS DIFFICULTY IDENTIFYING SIZE, COMPARE ½ HECTARE TO ½ FOOTBALL FIELD.]**	LESS THAN .5 HECTARE……1 1.5-2 HECTARES……2 MORE THAN 2 HECTARES……3 DON'T KNOW……9	
102	Do you own animals?	YES……1 NO……2 ➢ **105** DON'T KNOW……9 ➢ **105**	
103	What type of animals do you own and how many of each? **RECORD ALL MENTIONED AND THE APPROPRIATE NUMBER THAT INDICATES QUANTITY OF EACH ANIMAL**	GUINEA FOWLS..**A**……0 1 2 3 4 5 >10 >20 RABBITS……..**B**…… 0 1 2 3 4 5 >10 >20 GOATS ……**C**…… 0 1 2 3 4 5 >10 >20 PIGS……**D**……0 1 2 3 4 5 >10 >20 SHEEP……**E**…… 0 1 2 3 4 5 >10 >20 CATTLE……**F**……0 1 2 3 4 5 >10 >20 CHICKENS…..**G**…… 0 1 2 3 4 5 >10 >20 PIGEONS…….**H**…… 0 1 2 3 4 5 >10 >20 DUCKS……**I**……0 1 2 3 4 5 >10 >20 CANERAT……**J**……0 1 2 3 4 5 >10 >20 TURKEY……..**K**……0 1 2 3 4 5 >10 >20 FISH……..**L**……0 1 2 3 4 5 >10 >20 GUINEA PIGS.**M**…… 0 1 2 3 4 5 >10 >20 DONKEY……..**N**…… 0 1 2 3 4 5 >10 >20 DOVES……**O**…… 0 1 2 3 4 5 >10 >20 OTHER(specify) **P**……0 1 2 3 4 5 >10 >20 ____	
104	Does your family consume the products/meat of the animals or sell them?	DOMESTIC CONSUMPTION……..1 SELL……2 BOTH……3	
105	What is the main staple crop consumed in your family? **RECORD ALL MENTIONED**	MAIZE……A MILLET……B CASSAVA……C RICE……D SWEET POTATO……..E SORGHUM……F OTHER CROPS (specify)_____ G	
106	How long will your present stock of (main staple food) last?	NONE……1 1 WEEK……2 2 WEEKS……3 2-4 WEEKS……4 8 WEEKS……5 MORE THAN 8 WEEKS……..6 OTHER (specify)_____7	
107	How many meals did your family eat yesterday?	NONE……0 ONE……1 TWO……2 THREE……4 MORE THAN THREE……..5	

GROWTH MONITORING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
108	Was (*NAME)* weighed at birth?	YES……1 NO……2 DON'T KNOW……9	
109	**LOOK AT (*NAME'S*) GROWTH MONITORING CARD- IF AVAILABLE- AND SEE IF (NAME) HAS BEEN WEIGHED IN THE LAST FOUR MONTHS.**	YES……1 NO……2 DON'T KNOW……9	
110	FOR CHILDREN OVER 6 MONTHS: Has (NAME) received a medicine for worms in the last six months?	YES……1 NO……2 DON'T KNOW……9	

ANTHROPOMETRY

1 NAME OF CHILD	3 WEIGHT (KILOGRAMS)	4 HEIGHT (CENTIMETERS)	MUAC Mid Upper Arm Circumference	5 RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
	111	112	113	114
_____	.	. .	.	

ANNEX 3: HFA Report

IMPROVED CHILD SURVIVAL IN NSANJE DISTRICT, MALAWI THROUGH COMMUNITY BASED INTERVENTIONS AND STRENGTHENING OF THE HEALTH DELIVERY INFRASTRUCTURE

Health Facility Assessment Report

Submitted to

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
PVO CHILD SURVIVAL AND HEALTH GRANTS PROGRAM

Submitted by

The International Eye Foundation and Nsanje District Health Management Team

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS

The International Eye Foundation (IEF) and Nsanje District Health Management Team (DHMT), are indebted to the following people for their untiring efforts in the various contributions made, towards the successful implementation of the Health Facility Assessment. i.e.logistics, data collection, analysis and interpretation of the results and without whose effort, this paper could not be in its present shape.

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EXECUTIVE SUMMARY

The International Eye Foundation (IEF), in collaboration with the District Health Management Team (DHMT) of Nsanje District, Malawi, is submitting this report to USAID PVO Child Survival and Health Grants Program. The report describes the results of a health facility assessment that was conducted in 13 health facilities in the district. The assessment was conducted in order to determine the general status of the health delivery infrastructure, which plays a major role on the quality of health services offered, by a health facility. The assessment was developed and designed by IEF in partnership with the Nsanje DHMT who later reviewed it, providing comments and suggestions.

Nsanje District, in the southern extreme of the Lower Shire Valley, is one of the poorest districts in Malawi, and has many of the country's lowest health indicators. Infant and under-five mortality rates in Nsanje are the highest in the nation, while under-five malnutrition is second highest. Unacceptably high and preventable mortality rates from pneumonia, malaria, and diarrhea impede child survival. HIV/AIDS results in thousands of under-five and adult deaths each year. The district has the second highest malnutrition rate in the nation. Pneumonia is one of the leading causes of death in young children with a 28% national prevalence rate. Diarrhea is another leading cause of death, affecting 17% of children under 5 years-of-age in southern Malawi. HIV/AIDS statistics are also grim, with 65,000 children under 15 years-of-age infected, and AIDS contributing up to an estimated 50% of under 5 mortality in some areas.

Results from the HFA indicated that most of the facilities in the district have solar electricity. However, kerosene is the most common source of lighting. A shortage of kerosene could therefore greatly affect in-patient services at night as well as the refrigerators for vaccines that run on kerosene. The general facility sanitation was good in most of the facilities i.e. refuse and medical waste was disposed of safely, toilets were generally available although almost half of the slabs on the facility toilets were not clean. This could possibly be an avenue for disease transmission to patients in those facilities. Nevertheless, almost all facilities obtain their water from safe sources i.e. piped, protected wells etc.

The district has all the different cadres of health staff in its facilities. However, there is limited number of qualified personnel in almost all the health departments in the district. For instance, there are only two doctors in the district. One doctor works in the CHAM hospital. The other doctor is in the district referral hospital, which receives referral patients from most of the facilities in the district. Additionally, there is a shortage of Medical Assistants who are supposed to be Officer-In-Charge of health facilities. This has inevitably resulted in most health centers being manned by Senior Health Surveillance Assistants (SHSA) or Nurse Mid Wife Technicians. This is an unhealthy situation because the survey indicated that most of the HSAs in the district did not go through the 8-week training. The quality of health service offered in such facilities is therefore likely to be poor. Additionally, 69.2% of the facilities indicated that staff assigned during the past year left the facility.

All the facilities did not have a current roster of volunteers available at the facility. Although all facilities reported to have village health committees, it is not known how many are active in the district. Thus it will be important to find out the total number of active committees in order to strengthen the inactive ones as a means to enhance health delivery at community level.

Training of district staff in MCI (Facility and Community), VCT, STD case management and continuing Quality improvement was reportedly low. However, the majority of staff was trained in life saving skills and revised HMIS. There is dire need to fill these training gaps for most of the facilities, if the health delivery is to be enhanced in the district. Malaria was reported to be the most diagnosed category in the

outpatient department, which was followed by diarrhea, malnutrition and HIV/AIDS related illnesses. However, there is a lack of laboratories in most facilities and the ill equipped labs, wherever they exist means few facilities can diagnose malaria through the lab. Thus much of the diagnosis was based on signs and symptoms.

District supervision to health facilities was generally erratic. This was mostly attributed to lack of transport as was similarly the main reason leading to low outreach clinics conducted in the district including under five (for immunization and growth monitoring). Furthermore, low immunization coverage in the district could be attributed to inadequate supplies of vaccines. Most health facilities reported having job descriptions for HSAs and almost none for the other cadre of staff. This means that most staff members do not know what they are supposed to do as an essential element in order to meet the overall objectives of the Ministry of Health. Although, all facilities indicated referring emergency cases to the district hospital, all facilities did not have a printed referral form sent with referred patients. This may possibly be due to lack of stationery by the MoHP.

BACKGROUND

Location and Population

Nsanje is Malawi's southern most district, bordered by Chikwawa District to the north, Thyolo District to the northeast, and Mozambique to the east. Nsanje is part of the Lower Shire Valley (LSV) at low altitude (100 meters above sea level) with a hot, dry climate. Droughts occur regularly, interspersed with years of good rainfall and years of excessive rain, resulting in serious flooding. Nsanje's population is 194,481, dispersed in 450 villages and nine Traditional Authorities. The population density is 100 per square kilometer.[1] Chichewa, the national language, is spoken in Nsanje and all of Southern Malawi.[2] Approximately 33,000 (17%) of the population are children under age five years-of-age, and 45,000 (23%) are women of reproductive age (15 – 49 years).

Health Status

In 2000, the infant mortality rate (191/1,000 births) and under-five mortality rate (385/1,000) were the highest in the nation (national averages: 134/1,000 and 234/1,000, respectively). Between 1992 and 2000, the national maternal mortality rate increased from 1.4 deaths/1000 to 2.4/1000, while the maternal mortality ratio increased from 620/100,000 to 1,120/100,000 (maternal deaths per live births).[3] The birthrate is 6.0 for southern Malawi.[4] With 37% of children underweight (<2 SD weight/age), Nsanje has the second highest malnutrition rate in the nation.[5] Pneumonia is one of the leading causes of death in young children with a 28% national prevalence rate. Diarrhea is another leading cause of death, affecting 17% of children under 5 years-of-age in southern Malawi.[6] HIV/AIDS statistics are also grim, with 65,000 children under 15 years-of-age infected, and AIDS contributing up to an estimated 50% of under 5 mortality in some areas.[7]

Objective of the Health Facility Assessment (HFA)

The objective of the HFA was to determine the general status of the health delivery infrastructure, which plays a major role on the quality of health services offered, by a health facility. The HFA will shape the project, providing information on priority areas to improve child survival in Nsanje District.

Process and Partnership Building

The HFA was developed and designed by IEF in partnership with the Nsanje DHMT (District Health Management Team). The DHMT consists of members of Nsanje District Hospital who are MOHP (Ministry of Health and Population) staff. Pre-assessment qualitative and quantitative information was collected at a health center in adjacent Chikwawa District to assist in adapting the HFA to Nsanje.

Members from the DHMT reviewed the assessment, providing comments and suggestions. Several members of the DHMT also participated in data collection. Heavy work schedules and responsibilities restricted DHMT members from fully participating in the data collection and analysis process.

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[1] Malawi National Census, 1998.
2 Nsanje District Profile, Malawi Government, July 1998.
3 IBID.
4 2000 Malawi Demographic Health Survey.
5 Nsanje District Profile, Malawi Government, July 1998.
6 2000 Malawi Demographic Health Survey.
7 Afro-nets. 1997. "AIDS and Child Health."

METHODOLOGY

The questionnaire was developed with input from several District Health Management Team members. Topics covered in the questionnaire included: general facility information, staff information, relationship of health center to HSAs and communities, training, outpatient department, inpatient services, laboratory, stores management, nutritional issues, IEC/BCC, transportation and communication, supervision, referrals and client flow, reporting and financial. The questionnaire was 18 pages long and took approximately 90 minutes to complete.

Sampling Design

Nsanje District (NDH) has one District Hospital, one mission hospital and 2 health centers funded by the Christian Hospital Association of Malawi (CHAM), and 9 health centers run by the government. The assessment was conducted in all these health facilities in the district. The NDH is staffed by Clinical Officers, an Administrator, Medical Assistants, and Health Assistants, and houses the offices of the District Public Health Inspector and several District Coordinators. Health centers (HCs) are typically staffed by a Medical Assistant (MA), an Enrolled Nurse (EN) and Health Surveillance Assistants. These were the type of cadres that were interviewed during the assessment in order to capture the diverse information that was required of every health facility.

Training

All the people involved in the data collection have vast experience in conducting qualitative and quantitative research due to their involvement in a number of health related surveys before. This did not necessitate the official training of the staff involved in the survey. However, in order to ensure that the questionnaire was administered uniformly by the team that was later subdivided into two teams, a half day session was conducted to review the questionnaire by the entire team and discuss the most feasible and efficient probing technique of each question.

Data collection

Each health facility visit lasted approximately 90 minutes. It took ten days to complete the assessment. There were no major constraints associated with data collection except in one case where the Medical Assistant for one facility was away attending a meeting outside the district. This necessitated coming back to this facility at a later date to collect information that could not be provided by staff interviewed during the first visit.

To maintain high quality data collection, each team had a team leader who checked through each and every filled out questionnaire before leaving each health facility for another and made recommendations to re-interview for unclear responses.

Data Analysis

Lovemore Mvula and Frank Chola, IEF Assistant Country Director and Child Survival Project Administrator, respectively, both with vast experience in conducting and analysing survey results using Epi Info, had responsibility for data entry and analysis. The Country Director checked data entry quality by going through all the questionnaires entered.

RESULTS AND DISCUSSION

Section 1 - *General Facility Information.*

Nsanje District is comprised of 13 health facilities i.e. 11 health centers and 2 hospitals. Of these, 9 are run by the Government and 4 are run by the Christian Hospital Association of Malawi (CHAM). The district has been divided into six operational zones with each zone encompassing one to three facilities (Table 2). On average each facility serves about 33 villages (Table 6).

Although, 61.5% of the facilities reported having electricity, 53.8% stated that kerosene is the most common source of lighting (Tables 8 & 9). The survey did not try to find out how many of these offer in-patient services but a shortage of kerosene would have major effects on the quality of services offered at night. The survey also revealed that 92.3% of the facilities get their water from safe sources i.e. piped, protected well and bore hole while only one facility did not have any water source (Table 10). Although all facilities have latrines/toilets in the facility compound, only 53.8% had clean slabs and 38.5% had soap and water available at the hand washing point or near the latrine. Open rubbish pit reported by 76.9% facilities and placenta pit reported by 61.5%, are the two most common methods of disposing of refuse and medical waste. However, in 36.4% of the disposal units seen, there were sharps visible.

Stem sterilization/with burner and boiling sterilizer (box) with burner is the one method most frequently used for the sterilization of medical instruments followed by use of an autoclave (Table 16). In the former case, the source of energy mostly used is kerosene, reported by 76.9%. Although, the sterilizer was reported functioning in 69.2% of the facilities, 61.5% indicated that there has been a stock out of kerosene or gas in the past year.

Section 2 - Staffing

Nsanje district has all the different cadres of health staff in its facilities. However, there are only two qualified medical doctors working in the entire district. One doctor works in the CHAM hospital. The other doctor is in the district referral hospital, which receives referral patients from most of the facilities in the district. Additionally, the other departments in the health system are either understaffed or lack well qualified personnel. The shortage of Medical Assistants in the district who are supposed to be Officer-In-Charge of health facilities, has meant most health centers being manned by Senior Health Surveillance Assistants (SHSA) or Nurse Mid Wife Technicians. Although staff rotation was only reported by 30.8% of the facilities, 69.2% of the facilities indicated that staff assigned during the past year left the facility. Medical Assistants were the most group of cadre that left and normal transfer was the main reason for leaving. The major challenge for the MoHP is to maintain the well-qualified staff that is already in the district. One way to do this is to introduce incentives such as offering scholarships to staff to study somewhere and be required to serve the district for sometime before they could leave for another district. However, the one major challenge to this is the lack of funding by the ministry for such an ambitious idea.

Section 3 - Relationship of Health Center to HSAs and Communities.

The current roster of HSAs was available in only 76.9% of the facilities. However, out of the 95 HSAs that are in the health facilities, only 70 of them received the basic 8 weeks training. Furthermore, the district has a number of volunteers that are mostly stationed in the communities (Table 28). All the facilities did not have a current roster of volunteers available at the facility. All the facilities reported having the village health committees. However, the challenge is to find out how many of the VHCs are

active or inactive so that the inactive ones can be strengthened. The project will seek to identify inactive VHCs and train them on their roles and responsibilities in the project.

Section 4 - Training

IMCI (Facility and Community), VCT, STD case management and continued quality improvement, are the five major areas where very few people have been trained in the district. Most facilities reported undergoing training in life saving skills followed by revised HMIS and lastly malaria case management, family planning, immunization and HIV/AIDS (Table 31). The project will identify the different cadres of staff to be trained in the various areas. In most cases, the existing knowledge that staff already has on the different areas will be strengthened.

Section 5 - Outpatient Department

All the facilities reported providing treatment and care of sick children. However, only 84.6% provide STD treatment, delivery and postpartum care. Nutrition rehabilitation and counseling is provided in only 53.8% of the facilities. HIV/AIDS counseling and testing is the least service that is provided i.e. only administered in 30.8% of the facilities (Table 32). Malaria was reported to be the most diagnosed category in the outpatient department, followed by diarrhea (40%), malnutrition and HIV/AIDS related illness. The project will strive to reduce malaria infection by introducing insecticide treated nets (ITN) to the communities through the facilities. The project will collaborate with Population Services International (PSI), an organization that sales mosquito nets that come with a bottle of mosquito repellents.

Most of the facilities provide family planning services. The most common methods offered are pill reported by 84.6%, injectable reported by 84.6% and male condom reported by 76.9%. IUD and male sterilization are not offered at all while female sterilization and foaming tablets are offered by only15.4% of the facilities and lastly nor plant offered by 7.7% of the facilities (Table 35).

In 84.6% of the facilities, the exam room was clean. However, although 76.9% of the facilities had an examination couch, in only 38.5% of them the examination table was covered with an untorn macintosh or plastic sheet.

Very few facilities lacked stethoscope, BP machine, thermometer, functional watch or clock and weighing scale (Table 41a.) However, the survey revealed a major shortage of an ORS corner in most facilities only reported available in 23.1%. Additionally, the condition of these equipment / supplies was not very satisfactory (Table 41b). Generally, most facilities reported the availability of infection prevention equipment and supplies in the outpatient department (Table 42). The major challenge is to procure the equipment and supplies for facilities that do not have and also ensure that they are maintained by staff. One way to do this is to organize an awareness session for the staff involved in handling equipment to strictly follow laid down procedures when handling equipment.

All the facilities reported conducting under five clinics (EPI and Growth Monitoring). However, very little outreach clinics were conducted for antenatal, only reported by 23.1%, family planning reported by 15.4% and none for outpatient. The frequency of conducting under five clinics was on average 4 times per month (Table 43b). The HSAs were the most predominant cadre of staff who conducted outreach clinics (Table 44f) and the most common means of transport used was bicycle. This possibly explains why there were few outreach clinics conducted against those that were planned (Tables 48 and 49). The major challenge is to make sure that as many outreach activities for under five (EPI +GM) are conducted as possible. One way to do this is to improve transport system by procuring more bicycles for HSAs.

Furthermore, motivation of HSAs could be another factor to consider such as provision of T-shirts bearing messages about the importance of immunization etc.

The survey revealed that only 15.4% of the facilities had a wall chart indicating estimated DPT3 over estimated beneficiaries. However, 92.3% of the facilities stated that there were no reports of vaccine preventable diseases in their catchment area.

Section 6 - Inpatient Services

Only 84.6% of the facilities had an in-patient department or beds for overnight observation (Table 52). The average number of beds per facility was 50 with an average admission rate of 132 patients per month. All these facilities indicated a 24 hour operation period. Maternity service was the most common diagnosis category in the inpatient ward followed by musculoskeletal condition and malaria (Table 56). The average number of deliveries was reported at 51 per month. Adverse pregnancy outcomes were encountered by 81.8% of the facilities in the past 6 months. Mid wives were reported to be the primary people responsible for deliveries (Table 59). Most of the facilities (63.8%) referred patients to the district hospital (Table 60). The high occurrence of major adverse pregnancy outcomes may reflect the lack of knowledge by pregnant women or mothers on safe motherhood. This may also reflect lack of sensitization of community members by trained facility staff. The project will enforce this two way communication.

Generally, observations made showed that most facilities had the most basic required equipment and supplies in the inpatient department i.e. stethoscope, BP machine, thermometer, functional watch, clock or timer and child weighing scale. However, only very few (45.5%) had an ORS corner available (Table 64a). The condition of the existing equipment or supplies was generally better.

Although all the health facilities in the district have refrigerators dedicated to vaccines, 53.8% of the facilities' refrigerators were operated by gas (Table 66). Out of these, 25% were non-operational in the past 6 months mostly due to lack of fuel or gas (66.7%) and lack of spare parts (33.3%). Compounding the problem even further is the lack of maintenance schedules and spare parts in all the facilities although 15.4 % of the facilities personnel were previously trained on maintenance. Lack of transport is another factor leading to low outreach clinics conducted including for under-five. Out of all the facilities in the district, only 15.4% of them use a vehicle and motorcycle to conduct outreach. The majority, 61.5% (Table 46) use bicycles. The assessments also revealed that although all the health facilities had supplies of vaccines and these were mostly non-expired, (Table 77a), the quantities were not enough to match with population growth rate for Nsanje district that would require vaccination. The project will emphasize on efficient planning by the district so that vaccines are always available at facilities. The other idea will be to conduct immunizations at all times whenever the facility is open for other services. The project also proposes to conduct district annual immunization day campaigns for specific vaccinations.

Section 7 - Laboratory and drug supplies

Laboratories are only found in 38.5% of the facilities (Table 78). However, the facilities are ill equipped with equipment and supplies (Table 79a). The survey also revealed that most of the facilities had a number of drugs in stock at that time. However, the proportion of facilities reporting drug stock outs of other types of drugs progressed with time and 76.9% reported sometimes receiving the quantity of drugs ordered compared to 15.4% who reported always receiving the ordered drugs (Tables 80 and 81). The drug stock outs were mostly 1-2 times a year or up to 12 times, monthly and more than a year. About 76.9% of the facilities reported receiving drug supplies with an expiry date < 3 months. The drug room was clean and orderly in 84.6% of the facilities and 92.3% of them had a secured and locked door. The major challenge will be to ensure that drugs are rarely stocked out and that inventory matches supplies.

The project will help strengthen the district to improve its planning in ordering drug supplies from the Central Medical Stores and distributing them to the various facilities in the district.

Section 8 - Nutrition Issues

Only 69.2% of the facilities reported receiving food stuff for maternal and child nutrition services (Table 89). However, only 66.7% had adequate inventory and safeguards. Similarly, only 66.7% reported treating malnourished children at facility, having a written criteria for determining who receives food stuffs and having anthropometric data records (Tables 94, 95 and 97). On the other hand, only 46.2% indicated having height boards and MUAC tapes (Tables 99 & 100). The major challenge for the project will be to strengthen the capability of facility staff to identify malnourished children. On the facility training will be organized for staff dealing with malnourished children and appropriate written criteria to determine malnourished children will be adopted. Height boards and MUAC tapes will be supplied to all facilities without

Section 9 - IEC/BCC

Most of the facilities had IEC/BCC materials on immunization (92.3%), STD/HIV (92.3%), maternal health (84.6%) and malaria (76.9%). Very few had IEC materials on pneumonia and breast feeding (Table 101a). The most common source of these materials was the MoHP and Safe motherhood. The project will help source all IEC/BCC materials that will help spur the project interventions and distribute them to all health facilities and VHCs.

Section 10 - Transport and Communication

The majority of the facilities (61.5%) reported having no vehicle and only 7.7% reported having a maximum of 10 vehicles. However, only 23.1% and 69.2% reported all and none of them functioning respectively (Tables 104a & 104b). On motorcycles, 53.8% reported having no single motorcycle while 30.8% reported having one motorcycle each (Table 104c.) However, only 16.7% had all motorcycles functioning (Table 104d). Although, all facilities indicated that they have telephones, only 23.1% and 15.4% indicated that all and some telephones are functioning respectively while 61.5% stated that none is functioning (Table 104h). About half of the facilities i.e. 53.8% have been installed with communication radios that are all functioning (Tables 104i & 104j).

Section 11 - Management and Administrative Issues

Formal and regular meetings were only carried out in 92.3% of the facilities (Table 106) and 66.7% reported doing them monthly (Table 107). Of the facilities conducting the meetings, only 66.7% maintained an official record (Table 108). About 92.3% of the facilities had written work plans and 84.6% of the work plans were on EPI followed by clinical and antenatal (69.2) (Table 110). The project will help to strengthen the district to conduct regular meetings and document all that is discussed for decision making purposes.

Section 12 - Supervision

Most of the district supervisory visits were either conducted monthly (41.7%) or never conducted (33.3%) (Table 111). The last time district supervisory visits were made was within last month (66.7%) and 25% indicated no visits. The District Health Officer made the most visits (75%) and completed referral system, drug supply issues, administration and overall facility functioning. Environmental Health and Administrative Officers made the least visits and completed water and sanitation and administrative issues

respectively. Only 76.9% of the facilities had an advance notice about the visit made. However, only 15.4% received written feedback after the supervision (Table 115).

The survey also revealed that HSAs and volunteers are mostly supervised by SHSAs and HSAs respectively while VHCs are mostly supervised by HSAs (Table 116). However, only 38.5% of the facilities had a written schedule for supervision of the above. The supervision visits to the community were mostly on a monthly basis and 69.2% of the facilities made their last supervision visit within last month. On the other hand only 38.5% of the facilities reported that supervisory plans/checklist were completed during supervisory visits. The major challenge is to increase the frequency of supervisory visits made to the facilities by the different cadres of staff from the district hospital mostly because of lack of transport. Co-ordination on vehicle use for field visits by MoHP or the project will be improved so that field trips are not duplicated as well as to save running costs.

Section 13 - Job Descriptions

The HSA were the most cadre of staff reported to have written job descriptions by facilities (76.9%). The least with job descriptions were the Clinical Officers, Medical Assistants, VHCs and volunteers (15.4%) (Table 122). Overall few facilities reported staff members as having been evaluated in past year and receiving feedback (Table 123). The project will liaise with the Ministry headquarters to obtain job descriptions for all cadres of health staff. A meeting will then be organized with all facility staff to discuss their job descriptions so that they become acquainted with them and are aware of their major roles and responsibilities.

Section 14 - Referrals and Client Flow

All the facilities reported referring emergency cases. However, all indicated that they do not have a printed referral form sent with referred patients (Tables 124 & 125). Only 46.2% of the facilities provide ambulance when referring cases and/or provide communication to referral facility 38.5% and/or arrange community transport (38.5%) (Table 126). The project will assist to print out referral forms that will be distributed to all health facilities.

Section 15 - *Reporting*

The nurse was reported to be responsible for writing the majority of the reports in most facilities. Much of the reporting is on a monthly basis (Table 127). However, generally, only 15.4% of the facilities reported receiving feedback in the last three months from reports sent to the district.

The supply of MoHP health passports was very low in all the facilities. The major challenge will be to ensure an adequate supply of these materials to all health centers in the district. The project will assist to improve logistics of ordering them from the Central Medical Stores and also distributing them to the various health centers.

Section 16 - *Finances*

All the facilities, except Nsanje District Hospital, indicated that they do not receive any funding from the District. Only 61.5% of the facilities collect fees for the services they provide. The fee is collected from sale of health passports and mosquito nets as well as in-patient services. The money is used to buy drugs and conduct outreach activities.

CONCLUSION.

The results of the HFA have clearly indicated a number of gaps that need to be filled in the facilities in order to realize the full potential of the district to provide efficient and effective health delivery services in the district. In the first place, there is a shortage of qualified staff for most of the positions in the departments of the health system. Most of the facilities are manned by SHSA or Nurse Mid Wife Technician and yet very few HSAs have undergone a professional training in the medical field in order to do any diagnosis and prescribe medication.

Lack of transport, especially vehicles and motorcycles have a great impact on the quality of services that facilities provide to clients in the district. One of the main impacts is on low supervision provided by both the district staff to health facilities and health facility staff to communities. This lack of contact between these two major spheres means that problems identified at one level can not be solved even when the district has the potential to solve the problem. Additionally, outreach clinics for children under 5 years of age can rarely be conducted.

Very few staff was trained in IMCI (Facility and community). This is one major area that plays a crucial role in child survival. It is therefore important that a careful assessment of who needs to be trained, the number to be trained and the resource person be identified for the district training on IMCI. The same assessment should also be made for VCT, STD case management and quality assurance. Malaria was reportedly the most diagnosed disease in the outpatient department. However, lack of laboratory facilities in most of the health facilities and a shortage of equipment / supplies to carry out malaria tests in facilities with laboratories, means that most of the diagnosis is based on signs and symptoms. This in some cases can lead to a wrong diagnosis and wrong prescription that may ultimately be fatal.

RESULTS ACCORDING TO QUESTIONNAIRE

Table 1. Type of facility

Facility type	**# and %**
Health Center	11 (84.6)
Hospital	2 (15.4)

Table 2. Facility zone

Zone	**# and %**
Bangula	2 (15.4)
Boma	2 (15.4)
Makhanga	1 (7.7)
Mlolo	3 (23.1)
South	3 (23.1)
Tengani	2 (15.4)

Table 3. Distance of facilities to Nsanje District Hospital

Distance (Km)	**# and %**
13	1 (7.7)
20	1 (7.7)
25	1 (7.7)
26	1 (7.7)
30	1 (7.7)
50	2 (15.4)
65	1 (7.7)
192	1 (7.7)
203	1 (7.7)
220	2 (15.4)

Table 4. Operating authority

Authority	**# and %**
Government	9 (69.2)
CHAM	4 (30.8)

Table 5. What is the estimated catchment population for this facility?

Population	**# and %**
5028	1 (7.7)
5921	1 (7.7)
6636	1 (7.7)
10719	1 (7.7)
11444	1 (7.7)
12030	1 (7.7)
12249	1 (7.7)
15000	1 (7.7)
17049	1 (7.7)
18070	1 (7.7)
20087	1 (7.7)
29980	1 (7.7)
36513	1 (7.7)

Table 6. About how many villages does this facility serve

No. of villages served	**# and %**
11	1 (7.7)
16	2 (15.4)
21	1 (7.7)
25	1 (7.7)
26	1 (7.7)
28	2 (15.4)
29	1 (7.7)
30	1 (7.7)
56	1 (7.7)
62	1 (7.7)
83	1 (7.7)

Table 7. Is there a map of the catchment area of this facility

Map available	**# and %**
Yes	10 (76.9)
No	3 (23.1)

Table 8. Does this facility have electricity?

Status	**# and %**
Yes	8 (61.5)
No	5 (38.5)

Table 9. What is the most common source of lighting for the facility

Source of lighting	**# and %**
Electricity	6 (46.2)
Kerosene	7 (53.8)

Table 10. What is the most common source of water for the facility?

Source of water	**# and %**
Piped	9 (69.2)
Protected well	1 (7.7)
Borehole	2 (15.4)
No water source	1 (7.7)

Table 11. Are there latrines/toilets in the facility or on the facility compound?

Status	**# and %**
Yes	13 (100)
No	0

Table 12. Indicate whether the latrine slab is clean

Status	**# and %**
Clean	7 (53.8)
Not clean	6 (46.2)

Table 13. Indicate whether or not soap and water are available at the hand washing

Status	**# and %**
Yes	5 (38.5)
No	8 (61.5)

Table 14a. Where do you dispose of refuse and medical waste?

Disposal unit	**Yes, # and %**	**No, # and %**
Open rubbish pit	10 (76.9)	3 (23.1)
Closed rubbish pit	0	13 (100)
Placenta pit	8 (61.5)	5 (38.5)
Pit latrine	4 (30.8)	9 (69.2)
Other[11]	7 (53.8)	6 (46.2)

Table 14b. Ask to see the disposal unit.

Status	**# and %**
Seen	11 (84.6)
Not seen	2 (15.5)

Table 14c. Indicate whether the disposal area is maintained

Status	**# and %**
Maintained	7 (63.6)
Not maintained	4 (36.4)

Table 14d. Indicate if any sharps are visible.

Status	**# and %**
Sharps visible	4 (36.4)
Sharps not visible	7 (63.6)

[11] Dustbin and incinerator

Table 15a. Does the facility have a placenta pit?

Status	**# and %**
Yes	13 (100)
No	0

Table 15b. Ask to see the placenta pit. indicate whether or not the placenta pit is covered with a concrete slab or other airtight seal.

Status	**# and %**
Covered	12 (92.3)
Not covered	1 (7.7)

Table 16. What is the one method most frequently used for the sterilization of medical instruments (not linens)?

Method used	**# and %**
Electric sterilizer	2 (15.4)
Autoclave	3 (23.1)
Steam sterilizer/with burner	4 (30.7)
Boiling sterilizer (box) with burner	4 (30.7)
None	0

Table 17. If the sterilizer requires a burner, what is the source of energy used?

Source of energy	**Yes and %**	**No and %**
Kerosene	10 (76.9)	3 (23.1)
Gas	0	13 (100)
Wood	3 (23.1)	10 (76.9)
Other[12]	4 (30.8)	9 (69.2)

Table 18. Has there ever been a stock out of kerosene, gas, or wood?

Status	**# and %**
Yes	8 (61.5)
No	5 (38.5)

Table 19. Indicate if the sterilizer or autoclave is functioning.

Status	**# and %**
Functioning	9 (69.2)
Not functioning	3 (23.1)
Not seen	1 (7.7)

[12] Electricity

Table 20. How many permanent staff of each type (cadre) are assigned to the district's facilities

Cadre of staff	Total number
A. Medical Doctors	2
B. Clinical Officers	10
C. Medical Assistants	3
D. Health Assistants	2
E. Public Health Nurses	5
F. SR Midwives	3
G. SR Nurses	3
H. Nurse Midwife Technician	14
I. Enrolled Midwives	14
J. Enrolled Nurses	5
K. Pharmacists	6
L. Pharmacy Technician	0
M. Pharmacy Assistants	2
N. Lab Technicians	3
O. Nutrition Technicians	0
P. Ward Attendants	62
Q. Environmental Health Officers	1
R. Health Surveillance Assistants	95

Table 21. Have any of the people described above rotated here in the last year (i.e. they are new here)?

Rotated	# and %
Yes	4 (30.8)
No	9 (69.2)

Table 22. Has any staff assigned during the past year (but not identified above) left the facility in the past year?

Left facility	# and %
Yes	9 (69.2)
No	4 (30.8)

Table 23. Who left?

Cadre of staff	# and %
Environmental Health Officer	1 (11.1)
Health Surveillance Assistant	1 (11.1)
Medical Assistant	5 (55.6)
Nurse	1 (11.1)
State Registered Nurse	1 (11.1)

Table 24. Reason for leaving?

Reason	# and %
Community disputes	1 (11.1)
Normal transfer	4 (44.4)
Personal reasons	1 (11.1)
Routine transfer	1 (11.1)
Seeking new job	2 (22.2)

Table 25. Is accommodation for health staff very close (walking distance of 5 mins) to the facility?

Status	# and %
Close	12 (92.3)
Not close	1 (7.7)

RELATIONSHIP OF HEALTH CENTER TO HSAs AND COMMUNITIES

Table 26. Is there a current roster of HSAs at the facility?

Status	# and %
Yes	10 (76.9)
No	3 (23.1)

Table 27. Please indicate the total number of HSAs in your catchment area and how many of the HSAs have received basic training (meaning the official 4-month course)?

Status	# and %
Total number	95
Total number trained	70

Table 28. Please indicate the type and number of volunteers in your catchment area:

Type of Volunteer	Total number
General Volunteers	55
Growth Monitoring Volunteers	125
Traditional Birth Attendants	101
Community based Distributors of contraceptive	1
Water Volunteers	1264
Home-based Care Volunteers	51
Other (specify)[13]	2

Table 29. Is there a current roster of volunteers at the facility?

Status	# and %
Yes	0
No	13 (100)

Table 30. Are there village health committees in your catchment area and how many?

Status	Yes, # health facility and %	Total # of VHCs
Yes	13 (100)	382
No	0	

[13] Drug Revolving Fund volunteers

TRAINING

Table 31. In the last two years, please tell me the number of health care providers or medical staff who work in the MCH and Outpatient departments who have received in-service training in the following:

Area	**Trainer**	**Total number trained**
a. IMCI	CHAPS, MoHP	5
b. Growth monitoring and promotion	Action Against Hunger, MoHP	20
c. Immunization	MoHP	29
d. Family Planning	MoHP, STAFH, Safe Motherhood	29
e. HIV/AIDS	Cape Town University, CHAPS, MoHP	29
f. VCT	Cape Town University, MoHP	5
f. Life saving skills	Safe Motherhood	54
g. STD case management	CHAPS, MoHP, Safe Motherhood	2
h. Malaria case management	Malawi Project, MoHP, CHAM	29
i. Revised HMIS[14]	MoHP	46
j. Continuing quality improvement	CHAPS, Course in Uganda	4
k. Other (specify)[15]	CHSU, Medisens Sons Frontiers (MSF), IEF CHAPS, MAP, WHO, MoHP	94

[14] Health Management Information System
[15] Cholera, Health systems research, Disability, Exclusive Breast Feeding and PMTCT

OUTPATIENT DEPARTMENT

Table 32. Are the following services available to clients at this facility

Service	**Yes, # and %**	**No, # and %**
Treatment and care of sick children	13 (100)	0
STD treatment	11 (84.6)	2 (15.4)
HIV/AIDS counseling and testing	4 (30.8)	9 (69.2)
Family Planning	11 (84.6)	2 (15.4)
Nutrition rehabilitation & counseling	7 (53.8)	6 (46.2)
Delivery services	11 (84.6)	2 (15.4)
Postpartum care	11 (84.6)	2 (15.4)

Table 33. What are the hours of operation?

Hours	**# and %**
8	9 (69.2)
24	4 (30.8)

Table 34. What are the most common diagnosis categories in the outpatient services at this facility?

Diagnosis	**Rank**	**# and %**
Malaria	1	13 (100)
Diarrhea	2	4 (40)
	3	2 (20)
	4	3 (30)
	6	1 (10)
Malnutrition	3	1 (16.7)
	4	2 (33.3)
	5	2 (33.3)
	7	1 (16.7)
HIV/AIDS related illness	4	1 (33.3)
	5	1 (33.3)
	6	1 (33.3)
Antenatal services	2	1 (50)
		1 (50)
Musculoskeletal	2	1 (8.3)
	3	7 (58.3
	4	1 (8.3)
	5	3 (25)

Table 35. If family planning (FP) services are offered, which of the following FP methods can clients obtain at this facility?

Method	**Yes, # and %**	**No, # and %**
Pill	11 (84.6)	2 (15.4)
Injectable	11 (84.6)	2 (15.4)
IUD	0	13 (100)
Female sterilization	2 (15.4)	11 (84.6)
Male sterilization	0	13 (100)
Norplant	1 (7.7)	12 (92.3)
Foaming tablets	2 (15.4)	11 (84.6)
Natural methods	5 (38.5)	8 (61.5)
Male condom	10 (76.9)	3 (23.1)
No FP methods available	1 (7.7)	12 (92.3)

Table 37. Indicate if the floor of the exam room is free from soiled materials.

Status	# and %
Clean	11 (84.6)
Not clean	2 (15.4)

Table 38. Indicate if there is an examination couch.

Status	**# and %**
Seen	10 (76.9)
Not seen	

Table 39. Indicate if the examination table is covered with an untorn macintosh or plastic sheet.

Status	**# and %**
Covered	5 (38.5)
Not covered	8 (61.5)

Table 40. Indicate if the examination couch is clean.

Status	**# and %**
Clean	8 (61.5)
Not clean	5 (38.5)

Table 41a. Which of the following equipment and supplies are available where outpatient are provided?

Equipment/Supplies	**Yes, observed # And %**	**Not observed # and %**	**Yes reported # and %**
a. Stethoscope	10 (76.9)	3 (23.1)	2 (15.4)
b. BP machine	11 (86.4)	2 (15.4)	2 (15.4)
c. Thermometer	9 (69.2)	4 (30.8)	2 (15.4)
d. Functional watch, clock	10 (76.9)	3 (23.1)	2 (15.4)
e. ORS corner	3 (23.1)	10 (76.9)	5 (38.5)
f. Child weighing scale	9 (69.2)	4 (30.8)	4 (30.8)

Table 41.b Condition of equipment and supplies available where outpatients are provided.

Equipment	Condition	# and %
Stethoscope	Good	7 (70)
	Fair	3 (30)
	Poor	0
BP Machine	Good	7 (53.8)
	Fair	6 (46.2)
	Poor	0
Thermometer	Good	7 (70)
	Fair	3 (30)
	Poor	0
Functional watch	Good	7 (70)
	Fair	3 (30)
	Poor	0
ORS corner	Good	4 (50)
	Fair	3 (37.5)
	Poor	1 (12.5)
Child Weighing scale	Good	9 (69.2)
	Fair	2 (15.4)
	Poor	2 (15.4)

Table 42. Are the following items available for infection prevention in the outpatient department?

Item	Yes, observed # And %	Not observed # and %	Yes reported # and %
a. Puncture resistant container for sharp objects	9 (69.2)	4 (30.8)	1 (7.7)
b. Bucket with chlorine solution	7 (53.8)	6 (46.2)	4 (30.8)
c. Soap and water for hand washing	9 (69.2)	4 (30.8)	2 (15.4)
d. Dustbin with cover	8 (61.5)	5 (38.5)	1 (7.7)

Table 43a. Are there mobile outreach activities regularly scheduled? If so, how often and conducted by whom?

Activity	Yes # and %	No # and %
a. Under 5 (EPI+, GM)	13 (100)	0
b. Antenatal	3 (23.1)	10 (76.9)
c. Outpatient	0	13 (100)
d. Family planning	2 (15.4)	11 (84.6)
e. Other (specify)[16]	1 (7.7)	12 (92.3)

Table 43b. How often *a*re mobile outreach activities regularly scheduled?

Activity	Frequency	# of facilities reported and %
Under 5 (EPI+, GM)	1	1 (7.7)
	2	1 (7.7)
	3	2 (15.4)
	4	6 (46.2)
	5	2 (15.4)

[16] Tuberclosis

Table 43c. How often are mobile outreach activities regularly scheduled.

Activity	Frequency	# of facilities reported and %
Antenatal	0	10 (76.9)
	1	1 (7.7)
	2	1 (7.7)
	4	1 (7.7)

Table 43d. How often *a*re mobile outreach activities regularly scheduled.

Activity	Frequency	# of facilities reported and %
Family Planning	0	11 (84.6)
	2	1 (7.7)
	7	1 (7.7)

Table 43e. How often *a*re mobile outreach activities regularly scheduled.

Activity	Frequency	# of facilities reported and %
Mobile other (specify)	0	12 (92.3)
	4	1 (7.7)

Table 44f. Who conducts the regular mobile outreach activities?

Activity	Conducted by	# and %
a. Under 5 (EPI+, GM, etc.)	Health Surveillance Assistant	12 (92.3)
	Nurse, HSA, Home Craft Worker	1 (7.7)
b. Antenatal	Community Nurse	1 (33.3)
	Nurse	1 (33.3)
	Nurse and Mid Wife	1 (33.3)
c. Family planning	Community Nurse	1 (50)
	Nurse	1(50)
e. Other	Health Surveillance Assistant	1 (100)

Table 45. Is there equipment dedicated exclusively for the U/5 clinics?

Status	# and %
Yes	10 (76.9)
No	3 (23.1)

Table 46. What means of transport is used to conduct outreach?

Means of transport	Yes # and %	No # and %
Vehicle	2 (15.4)	11 (84.6)
Motorcycle	2 (15.4)	11 (84.6)
Bicycle	8 (61.5)	5 (38.5)
Other (specify)[17]	3 (23.1)	10 (76.9)

[17] Walking on foot

Table 47. Is there a written work plan/schedule for outreaches?

Status	# and %
Yes	11 (84.6)
No	2 (15.4)

Table 48. How many outreaches were planned last month?

Outreaches planned	# and %
0	1 (7.7)
1	1 (7.7)
2	1 (7.7)
3	2 (15.4)
4	5 (38.5)
5	2 (15.4)
7	1 (7.7)

Table 49. How many outreaches were actually carried out?

Outreaches carried out	# and %
0	1 (7.7)
1	1 (7.7)
2	5 (38.5)
3	2 (15.4)
4	1 (7.7)
5	2 (15.4)
6	1 (7.7)

Table 50. Is there a wall chart indicating estimated DPT3 over estimated beneficiaries?

Wall chart available	# and %
Yes	2 (15.4)
No	11 (84.6)

Table 51. During the past year, have there been any reports of any vaccine preventable disease in the catchment area?

Any preventable disease outbreak	# and %
Yes	1 (7.7)
No	12 (92.3)

INPATIENT SERVICES

Table 52. Does this facility have an in-patient department or beds for overnight observation?

In-patient department or beds available	# and %
Yes	11 (84.6)
No	2 (15.4)

Table 53. What are the hours of operation?

Hours of operation	# and %
24	11 (100)

Table 54. How many beds does this facility have?

Number of beds	# and %
5	1 (9.1)
7	1 (9.1)
9	1 (9.1)
10	1 (9.1)
12	3 (27.3)
14	1 (9.1)
53	1 (9.1)
200	1 (9.1)
226	1 (9.1)

Table 55. On average, how many patients are admitted per month?

Number of admissions	# and %
10	1 (10)
15	1 (10)
30	1 (10)
40	1 (10)
53	1 (10)
60	1 (10)
75	1 (10)
89	1 (10)
430	1 (10)
521	1 (10)

Table 56. What are the most common diagnosis categories in the inpatient ward

Diagnosis	Rank	# and %
Malaria	1	3 (37.5)
	2	4 (50)
	4	1 (12.5)
Diarrhea	1	2 (22.2)
	2	2 (22.2)
	3	3 (33.3)
	4	1 (11.1)
	5	1 (11.1)
Malnutrition	2	1 (20)
	3	2 (40)
	6	2 (40)
HIV/AIDS related illness	2	1 (16.7)
	3	1 (16.7)
	5	1 (16.7)
	6	1 (16.7)
	7	1 (16.7)
	9[1]	1 (16.7)

[1] Fracture

Maternity services	1	6 (60)
	3	1 (10)
	4	1 (10)
	5	(20)
Musculoskeletal	2	1 (8.3)
	3	7 (58.3
	4	1 (8.3)
	5	3 (25)

Table 57.How many deliveries were performed in the past month?

Number of deliveries	**# and %**
6	1 (9.1)
19	1 (9.1)
24	1 (9.1)
29	1 (9.1)
32	1 (9.1)
42	1 (9.1)
46	1 (9.1)
0	1 (9.1)
60	1 (9.1)
79	1 (9.1)
180	1 (9.1)

Table 58. During the past 6 months, have there been any adverse pregnancy outcomes?

Any adverse pregnancy outcome	**# and %**
Yes	9 (81.8)
No	2 (18.2)

Table 59. Who has primary responsibility for deliveries at this facility?

Responsible person	**# and %**
Enrolled Midwife	9 (81.8)
Nurse	1 (9.1)
Nurse & Midwife	1 (9.1)

Table 60. Were any patients referred to the district hospital?

Any referrals	**# and %**
Yes verified	7 (63.6)
Yes, not verified	1 (9.1)
No	3 (27.3)

Table 61. Are there separate wards for men and women?

Separate wards	**# and %**
Yes	4 (36.4)
No	7 (63.6)

Table 62. Are there screens or curtains or walls to separate the men's from the women's beds?

Screens/curtains/walls available	# and %
Yes	4 (50)
No	4 (50)

Table 63. Indicate if the beds in the women's ward have mattresses.

Status	# and %
With Beds	11 (100)

Table 64a. Which of the following equipment and supplies are available where inpatient services are provided?

Equipment/Supplies	Yes, observed # And %	Not observed # and %	Yes reported # and %
a. Stethoscope	8 (72.7)	3 (27.3)	1 (9.1)
b. BP machine	8 (72.7)	3 (27.3)	2 (18.2)
c. Thermometer	8 (72.7)	3 (27.3)	1 (9.1)
d. Functional watch clock or timer	10 (90.9)	1 (9.1)	0
e. ORS corner	5 (45.5)	6 (54.5)	0
f. Child weighing scale	10 (90.9)	1 (9.1)	1 (9.1)

Table 64b. Condition of equipment and supplies available where outpatient are provided

Equipment	Condition	# and %
Stethoscope	Good	8 (88.9)
	Fair	0
	Poor	1 (11.1)
BP Machine	Good	6 (60)
	Fair	2 (20)
	Poor	2 (20)
Thermometer	Good	9 (100)
	Fair	0
	Poor	0
Functional watch	Good	7 (70)
	Fair	3 (30)
	Poor	0
ORS corner	Good	3 (50)
	Fair	2 (33.3)
	Poor	1 (16.7)
Child Weighing scale	Good	10 (90.9)
	Fair	1 (9.1)
	Poor	0

Table 64c. Is same equipment in the inpatient ward as identified in the OPD

Status	**# and %**
Different	6 (54.5)
Same	5 (45.5)

Table 65. Do you have a refrigerator dedicated to vaccines?

Refrigerator available	**# and %**
Yes	13 (100)

Table 66. What kind of refrigerator is it: electric, gas, or kerosene?

Kind of refrigerator	**# and %**
Electric	6 (46.2)
Gas	7 (53.8)

Table 67. Is the refrigerator fully functional?

Status	**# and %**
Yes	12 (92.3)
No	1 (7.7)

Table 68. During the past 6 months, has the refrigerator been non-operational (other than routine maintenance)?

Status	**# and %**
Yes	3 (23.1)
No	10(76.9)

Table 69. If yes, what was the cause of non-operation?

Cause	**# and %**
Lack of fuel or gas	2 (66.7)
Part need replacement	1 (33.3)

Table 70. Is there a maintenance schedule?

Status	**# and %**
Yes	0
No	3 (100)

Table 71. Has any person in this facility been trained in maintenance?

Any person trained	**# and %**
Yes	2 (15.4)
No	11 (84.6)

Table 72. Are replacement parts for the refridge available in the facility?

Parts available	**# and %**
Yes	0
No	13 (100)

Table 73. Is a temperature chart displayed on the refrigerator?

Temp. chart displayed	**# and %**
Yes	12 (92.3)
No	1 (7.7)

Table 74. Has the temperature varied above or below the guidelines in the past month?

Temperature varied	# and %
Yes	7 (53.8)
No	6 (46.2)

Table 75a. Verify with temperature gauge what the current temperature is in freezer.

Temperature	# and %
+15	1 (8.3)
+4	1 (8.3)
+5	2 (16.7)
-11	2 (16.7)
-12	1 (8.3)
-14	1 (8.3)
-26	1 (8.3)
-3	1 (8.3)
-5	1 (8.3)
-7	1 (8.3)

Table 75b. Verify with temperature gauge what the current temperature is in box

Temperature	# and %
+10	1 (8.3)
+16	2 (16.7)
+2	1 (8.3)
+20	1 (8.3)
+5	2 (16.7)
+6	1 (8.3)
+8	1 (8.3)
+9	1 (8.3)
-8	1 (8.3)
0	1 (8.3)

Table 76. Verify if other supplies (apart from vaccine or medical supplies) are present in the refrigerator.

Supplies present	# and %
Yes	0
No	(100)

Table 77a. Please ask if there is a one month supply of the following vaccines.

Vaccine	Yes # and %	No, # and %	Non expired # and %	Expired # and %
BCG	12 (92.3)	1 (7.7)	12 (92.3)	0
Polio	12 (92.3)	1 (7.7)	12 (92.3)	0
DPT/HEB/HIB	9 (69.2)	4 (30.8)	10 (76.9)	0
Measles	12 (92.3)	1 (7.7)	12 (92.3)	0
TT	12 (92.3)	1 (7.7)	12 (92.3)	0
Other[2]	2 (15.4)	11 (84.6)	2 (15.4)	0

[2]

Table 77b. How many vials of the following vaccines are present

Vaccine	**Number of vials present**	**# and % of facilities reported**
BCG	0	1 (7.7)
	5	1 (7.7)
	10	1 (7.7)
	12	1 (7.7)
	13	1 (7.7)
	14	2 (15.4)
	23	1 (7.7)
	32	2 (15.4)
	38	1 (7.7)
	54	1 (7.7)
	82	1 (7.7)
Polio	0	1 (7.7)
	2	1 (7.7)
	6	1 (7.7)
	12	1 (7.7)
	13	1 (7.7)
	18	1 (7.7)
	21	2 (15.4)
	38	1 (7.7)
	43	1 (7.7)
	83	2 (15.4)
	235	1 (7.7)
DPT/HEB/HIB	0	4 (30.8)
	20	1 (7.7)
	32	1 (7.7)
	41	1 (7.7)
	56	1 (7.7)
	60	1 (7.7)
	62	1 (7.7)
	98	1 (7.7)
	159	1 (7.7)
	303	1 (7.7)
Measles	0	1 (7.7)
	6	1 (7.7)
	14	1 (7.7)
	22	1 (7.7)
	30	1 (7.7)
	32	1 (7.7)
	33	1 (7.7)
	45	1 (7.7)
	79	1 (7.7)
	104	1 (7.7)
	114	1 (7.7)
	136	1 (7.7)

	261	1 (7.7)
TT	0	1 (7.7)
	3	1 (7.7)
	12	1 (7.7)
	13	1 (7.7)
	20	1 (7.7)
	21	1 (7.7)
	23	1 (7.7)
	34	1 (7.7)
	38	1 (7.7)
	47	1 (7.7)
	66	1 (7.7)
	68	1 (7.7)
	140	1 (7.7)
Other	0	10 (83.3)
	8	1 (8.3)
	26	1 (8.3)

Table 78. Does this facility have a laboratory?

Status	**# and %**
Yes	5 (38.5)
No	8 (61.5)

Table 79a. Do you have the following equipment and supplies available in the laboratory

Equipment/Supplies	**Yes, observed # And %**	**No**	**Not determined # and %**
a. A functioning microscope	3 (23.1)	6 (46.2)	4 (30.8)
b. Reagents for syphillis	3 (23.1)	6 (46.2)	4 (30.8)
c. HIV test kits	2 (15.4)	7 (53.8)	4 (30.8)
d. Reagents for testing malaria	3 (23.1)	6 (46.2)	4 (30.8)
e. Other[3]	2 (15.4)	7 (53.8)	4 (30.8)

Table 79b. Do you have the following equipment and supplies available in the laboratory

Equipment/Supplies	**Yes, reported # And %**	**No**	**Not determined # and %**
a. A functioning microscope	1 (7.7)	8 (61.5)	4 (30.8)
b. Reagents for syphillis	1 (7.7)	8 (61.5)	4 (30.8)
c. HIV test kits	1 (7.7)	*8 (61.5)*	*4 (30.8)*
d. Reagents for testing malaria	1 (7.7)	8 (61.5)	4 (30.8)
e. Other[4]	1 (7.7)	8 (61.5)	4 (30.8)

[3] Bilhazia kit, incubator, centrifuge
[4] Bilhazia kit, incubator, centrifuge

Table 80. Do you have the following drugs in stock now and were there any stock outs in February and last three months?

A. Drugs for infection	**Yes in stock now # and %**	**Not in stock now # and %**	**Yes, # and % stock outs in February**	**Yes # and % stock outs last 3 months**
Abendazole	12 (92.3)	1 (7.7)	2 (15.4)	N/A
Amoxillin oral	12 (92.3)	1 (7.7)	2 (15.4)	N/A
Cotrimoxazole	12 (92.3)	1 (7.7)	1 (7.7)	2 (15.4)
Tetracycline	12 (92.3)	1 (7.7)	2 (15.4)	3 (23.1)
B. Drugs for STD treatment				
Doxycline	13 (100)	0	1 (7.7)	N/A
Benzathine penicillin	12 (92.3)	1 (7.7)	1 (7.7)	N/A
Erythromycin	13 (100)	0	1 (7.7)	N/A
Nystatin Pessaries	9 (69.2)	4 (30.8)	4 (30.8)	N/A
Gentamycin	9 (69.2)	4 (30.8)	4 (30.8)	N/A
Ciprofloxacin	0	13 (100)	11 (84.6)	N/A
Metronidazole	13 (100)	0	3 (23.1)	N/A
C. Malaria drugs				
Quinine	13 (100)	0	2 (15.4)	1 (7.7)
Fansidar	13 (100)	0	1 (7.7)	1 (7.7)
D. Other				
ORS	12 (92.3)	1 (7.7)	2 (15.4)	2 (15.4)
Vitamin A	12 (92.3)	1 (7.7)	3 (23.1)	1 (7.7)
Iron Folate	12 (92.3)	1 (7.7)	0	13 (100)
Aspirin	12 (92.3)	1 (7.7)	1 (7.7)	12 (92.3)
GV paint	10 (76.9)	3 (23.1)	3 (23.1)	10 (76.9)
Calamite lotion	11 (84.6)	2 (15.4)	1 (7.7)	12 (92.3)
Chrolamphenicol	12 (92.3)	1 (7.7)	3 (23.1)	10 (76.9)
Benzyl Benzoate	13 (100)	0	1 (7.7)	12 (92.3)
Sulphur Salicyclic Acid Ointment	10 (76.9)	3 (23.1)	1 (7.7)	12 (92.3)
Whitfield Ointment	2 (15.4)	11 (84.6)	7 (53.8)	6 (46.2)

Table 81. During the past 3 months**,** have you always, sometimes or almost never received the quantity of drug(s) that you ordered (or that you are supposed to routinely receive)?

Situation	**# and %**
Always	2 (15.4)
Sometimes	10 (76.9)
Almost never	1 (7.7)

Table 82. Do you sometimes have drug stock out?

Situation	**# and %**
Yes	13 (100)
No	0

Table 83. If yes, how often.

Situation	# and %
1-2 times a year	5 (38.5)
3-4 times a year	2 (15.4)
5-6 times a year	1 (7.7)
Other[5]	5 (38.5)

What drug items are most commonly stocked out? (LIST.) Amoxyl syrup, Asprin, Iron Folate, Panado, Cotrimoxazole, Vitamin A, Benzyl Benzoate, Chloramphenical, Benzathine, Gentamycin, Erythromycin, Nystatin Oral, Endocid, Phenobarbtone, Prednisone, Phenotin, Penicillin and Vitamin B Complex.Table

84. Have you ever received drug supplies with an expiry date < 3 months?

Received expiry drugs	# and %
Yes	10 (76.9)
No	3 (23.1)

Table 85. Indicate the type of inventory system used in this facility.

Type of inventory	Yes # and %	No, # and %
Stock cards	10 (76.9)	3 (23.1)
Register books	6 (46.2)	7 (53.8)
Other (specify)[6]	1 (7.7)	12 (92.3)

Table 86. Are the stock cards or register books for the following products up-to-date and corresponds with stock in facility.

Drug type	Yes, # and % card available	Yes , # and % Stock card and register up-to-date	Yes, # and % amount register matches physical stock
Cotrimoxazole	12 (92.3)	10 (76.9)	9 (69.2)
Fansidar	11 (84.6)	8 (61.5)	7 (53.8)
Injectable contraceptive	8 (61.5)	6 (46.2)	5 (38.5)
ORS	6 (46.2)	6 (46.2)	5 (38.5)
Doxycline	12 (92.3)	11 (84.6)	10 (76.9)

Table 87. Indicate if the drug room is clean and orderly*:*

Situation	# and %
Clean and orderly	11 (84.6)
Dirty and not orderly	2 (15.4)

[5] 12 times, monthly, more than a year

[6] File

Table 88. Indicate whether drug room is secured by a locked door.

Situation	# and %
Secured with locked door	12 (92.3)
Not secured	1 (7.7)

NUTRITION ISSUES

Table 89. Does this facility receive food stuff for maternal & child nutrition services?

Situation	# and %
Yes	9 (69.2)
No	4 (30.8)

Table 90. Do you receive any of the food on a monthly basis?

Item	Yes, # and %	No, # and %
Whole or Skim Milk	3 (33.3)	6 (66.7)
Corn Soya Milk	5 (55.6)	4 (44.4)
Oil	6 (66.7)	3 (33.3)
Other (specify)[7]	9 (100)	0

Table 92. Is there adequate inventory and safeguards?

Situation	# and %
Yes	6 (66.7)
No	3 (33.3)

Table 93. Does inventory match supplies?

Situation	# and %
Yes	5 (55.6)
No	4 (44.4)

Table 94. Are malnourished children treated at the facility?

Treated at facility	# and %
Yes	7 (53.8)
No	6 (46.2)

Table 95. Is there written criteria for determining who receives food stuffs?.

Written criteria available	# and %
Yes	7 (53.8)
No	6 (46.2)

[7] Beans, Likuni Phala, Maize meal and soya flo

Table 96. What is the approximate number of malnourished children seen at this facility during the past 3 months?

Approximate number	**# and %**
0	6 (46.2)
15	1 (7.7)
40	1 (7.7)
86	1 (7.7)
183	1 (7.7)
370	1 (7.7)
750	1 (7.7)
1056	1 (7.7)

Table 97. Are there any anthropometic data records available?

Anthropometric data available	**# and %**
Yes	7 (53.8)
No	6 (46.2)

Table 98. Are weighing scales available?

Weighing scales available	**# and %**
Yes	11 (84.6)
No	2 (15.4)

Table 99. Are height measuring boards available?

Height boards available	**# and %**
Yes	6 (46.2)
No	7 (53.8)

Table 100. Are MUAC tapes available?

Tapes available	**# and %**
Yes	6 (46.2)
No	7 (53.8)

IEC/BCC

Table 101a. Are the following posters displayed in the MCH and/or OPD areas

Poster	Yes, # and %	No, # and %
Maternal Health	11 (84.6)	2 (15.4)
Breast feeding	7 (53.8)	6 (46.2)
Family planning	8 (61.5)	5 (38.5)
Malaria	10 (76.9)	3 (23.1)
Immunization	12 (92.3)	1 (7.7)
Pneumonia	7 (53.8)	6 (46.2)
Nutrition	9 (69.2)	4 (30.8)
STD/HIV	12 (92.3)	1 (7.7)

Table 101b. Source of posters displayed in the MCH and /or OPD areas

Type of poster	Source
Maternal Health	MoHP & Safe Motherhood
Breast feeding	MoHP & Safe Motherhood
Family planning	MoHP & Safe Motherhood
Malaria	MoHP, Malaria Project & PSI
Immunization	MoHP
Pneumonia	MoHP
Nutrition	MoHP, Ministry of Agriculture
STD/HIV	ADRA, BLM, CARD, NAC, PSI, UNICEF, MoHP

Table 102. Is there a waiting area?

Waiting area available	# and %
Yes	13 (100)
No	0

Table 103. Is sitting provided in the waiting area?

Sitting provided	# and %
Yes	13 (100)
No	0

A. List of posters available at the facility

Breast feeding, Family Planning, Maternal Health, HIV, Safe Motherhood, Malaria, Diarrhea, Bilhazia, Polio, Nutrition, Immunization, Tb and Measles, and Measles.

B. List of flipcharts available at the facility

Cholera, Family plannning, Safe Motherhood, STI, Malnutrition and water and Sanitation

C. List of pamphlets available at the facility

EPI, Malaria, TB, Diarrhea and HIV

D. List of manuals

EPI, Malaria, TB, Diarrhea, HIV, Cholera, HMIS, Immunization, Family planning, ARI, community empowerment and nutrition

Transportation and Communication

Table 104a. How many vehicles does facility have?

Number of vehicles	# and % of facilities
0	8 (61.5)
1	3 (23.1)
6	1 (7.7)
10	1 (7.7)

Table 104b. How many functioning vehicles do you have?

Vehicles functioning	# and % of facilities
All	3 (23.1)
None	9 (69.2)
Some	1 (7.7)

Table 104c. How many motorcycles does facility have?

Number of motorcycles	# and % of facilities
0	7 (53.8)
1	4 (30.8)
4	1 (7.7)
7	1 (7.7)

Table 104d. How many motorcycles are functioning?

Motorcycles functioning	# and % of facilities
All	2 (16.7)
None	6 (50)
Some	4 (33.3)

Table 104e. How many bicycles does this facility have?

Number of bicycles	# and % of facilities
0	3 (23.1)
4	2 (15.4)
5	1 (7.7)
8	1 (7.7)
10	1 (7.7)
11	2 (15.4)
14	1 (7.7)
21	1 (7.7)
25	1 (7.7)

Table 104f. How many bicycles are functioning

Bicycles functioning	# and % of facilities
All	2 (15.4)
None	3 (23.1)
Some	8 (61.8)

Table 104g. How many telephones does this facility have

Number of telephones	# and % of facilities
1	3 (23.1)
2	8 (61.5)
3	2 (15.4)

Table 104h. How many telephones are functioning

Telephones functioning	# and % of facilities
All	3 (23.1)
None	8 (61.5)
Some	2 (15.4)

Table 104i. How many communication radios do you have

Number communication	# and % of facilities
0	6 (46.2)
1	7 (53.8)

Table 104j. How many communication radios are functioning

Number of radios functioning	# and % of facilities
All	7 (53.8)
None	6 (46.2)

Table 104k. Do you have other means of communication

Other Means of communication[8]	# and % of facilities
Yes	2 (15.4)
No	11 (84.6)

Table 105. How many days on the average, are the vehicles not functional in a year?

Days not functioning	# and %
5 – 10 days	2 (15.4)
> 20 days	1 (7.7)
Other (specify)[9]	10 (76.9)

Table 106. Does this facility have a formal, regular meeting for reviewing management and/or administrative issues?

Any formal meeting	# and %
Yes	12 (92.3)
No	1 (7.7)

Table 107. How often do formal meetings to discuss the facility management/administrative issues take place?

How often	# and %
Weekly	1 (8.3)
Monthly	8 (66.7)
Quarterly	1 (8.3)
Semi annually	2 (16.7)

Table 108. Is an official record of meetings maintained?

Record of meetings maintained	# and %
Yes document seen	8 (66.7)
Yes, document not seen	2 (16.7)
No records	2 (16.7)

[8] Fax and e-mail

[9] New vehicle (1), do not have vehicle (8), vehicle grounded (1)

Table 109. Are there any written work plans guiding activities at this facility?

Written work plan available	# and %
Yes	12 (92.3)
No	1 (7.7)

Table 110. Please identify what type of work plans are available and whether/not they are current/up-to-date?

Type of work plan	Yes, available # and %	Not available, # and %	Yes, current # and %	Not current # and %
Clinical	9 (69.2)	4 (30.8)	8 (61.5)	5 (38.5)
Antenatal	9 (69.2)	4 (30.8)	9 (69.2)	4 (30.8)
EPI Outreach	11 (84.6)	2 (15.4)	10 (76.9)	3 (23.1)
Other (specify)[10]	4 (30.8)	9 (69.2)	3 (23.1)	10 (76.9)

SUPERVISION

Table 111.How regular are the District supervisory visits?

How regular	# and %
Monthly	5 (41.7)
Quarterly	2 (16.7)
Annually	1 (8.3)
Other (specify)[11]	4 (33.3)

Table 112. When was the last time DISTRICT supervision was made?

Last supervision	# and %
Within last month	8 (66.7)
Never visited	3 (25)
Don't know	1 (8.3)

[10] Infection prevention, Brea feeding, monthly work plans and Public health
[11] Never conducted

Table 113. Who visited and for how long?

Who visited	**Yes, # and % facility report visit**	**For how long**	**# and % facility report length visit**	**Activities completed**
DHO	9 (75)	< 1 hour	4 (44.4)	Referral system
		1-2 hours	4 (44.4)	Drug supply issues
		Half day	1 (11.1)	Administration
				Overall facility functioning
				Other issues[12]
Nurse	4 (33.3)	1-2 hours	3 (75)	Antenatal clinic
		< 1 hour	1 (25)	Maternity issues
				Other issues[13]
Environmental Health Officer	1 (8.3)	1-2 hours	1 (100)	Water & sanitation
Administrative Person	1 (8.3)	Half day	1 (100)	Administrative issues
Other (specify)[1]	7 (58.3)	1-2 hours	2 (28.6)	Delivery of supplies
		2 hours	3 (42.9)	Referral system
		Half day	2 (28.6)	Overall facility functioning
				Administrative issues

Table 114. Did you receive advance notice of the supervision visit?

Received advance notice	**# and %**
Yes	10 (76.9)
No	3 (23.1)

Table 115. Did you receive written feedback after the supervision visit?

Received feedback	**# and %**
Yes	2 (15.4)
No	11 (84.6)

[12] Familiarization tour
[13] Administration
[1] Opthalmic clinician, MCH Coordinator and TB Officer

Table 116. Is this facility responsible for the supervision for the following:

Cadre of staff	Supervisor	# and % facility reported supervision
HSAs	HA	1 (8.3)
	MA	1 (8.3)
	Nurse	2 (16.7)
	SHSA	8 (66.7)
Volunteers	HA	1 (8.3)
	HSA	10 (8.3)
	Nurse	1 (8.3)
VHCs	HA	1 (8.3)
	HSA	11 (91.7)

Table 117. Indicate whether there is a written schedule for supervision of the above.

Written schedule for supervision	# and %
Yes	5 (38.5)
No	8 (61.5)

Table 118. How regular do health facility staff carry out supervision visits to the community?

How regular visits made by staff	# and %
Monthly	6 (46.2)
Quarterly	3 (23.1)
Other specify[2]	4 (30.8)

Table 119. When was the last time community supervision by this facility took place?

Last visit made	# and %
Within last month	9 (69.2)
Within last 3 months	3 (23.1)
More than 6 months	1 (7.7)

[2] Every two weeks, once to twice per month, weekly

Table 120. Who from facility visited community

Who visited	Yes, # and % facility report visit	For how long	# and % facility report length visit	Activities completed
Medical Officer	2 (15.4)	1-2 hours	2 (100)	HSA support
				Volunteer support
				EPI clinic
				Training
				Reporting issues
				Other issues[3]
Nurse	1 (7.7)	Whole day	1 (7.7)	Volunteer support
				EPI clinic
Environmental Health Officer	1 (7.7)	Whole day	1 (7.7)	VHC support
				HAS support
				EPI clinic
				Reporting issues
				Volunteer support
				Other issues[4]

Table 121. Are written supervisory plans/checklist completed during supervisory visits?

Supervisory plans completed	# and %
Yes	5 (38.5)
No	8 (61.5)

Table 122. Do staff have written job descriptions

Cadre of staff	Yes, # and %	No, # and %	Seen, # and %	Not seen # and %
CO, MA	2 (15.4)	11 (84.6)	0	2 (100)
Nurses	4 (30.8)	9 (69.2)	1 (25)	3 (75)
HA	3 (23.1)	10 (76.9)	3 (100)	0
HSA	10 (76.9)	3 (23.1)	3 (30)	7 (70)
Ward Attendant	5 (38.5)	8 (61.5)	1 (20)	4 (80)
VHC	2 (15.4)	11 (84.6)	2 (100)	
Volunteers	2 (15.4)	11 (84.6)	2 (100)	

[3] Sanitation

[4] Maintenance

Table 123. Have staff been evaluated based on performance in the last year and received feedback

Cadre of staff	Yes, # and %	No, # and %	Received feedback, # and %	Not received # and %
CO, MA	1 (7.7)	12 (92.3)	1 (100)	0
Nurses	2 (15.4)	11 (84.6)	1 (50)	1 (50)
HA	0	13 (100)	0	0
HSA	4 (30.8)	9 (69.2)	2 (50)	2 (50)
Ward Attendant	1 (7.7)	12 (92.3)	1 (100)	

REFERRALS & CLIENT FLOW

Table 124. Does this facility refer emergency cases?

Refer emergencies	# and %
Yes	13 (100)
No	0

Table 125. Is there a printed referral form sent with referred patients?

Printed referral form	# and %
Yes	0
No	13 (100)

Table 126. Does this facility provide any of the following assistance when referring cases?

Type of assistance	Yes, # and %	No, # and %	Don't know # and %
Communication to referral facility	5 (38.5)	8 (61.5)	
Ambulance	6 (46.2)	7 (53.8)	
Arrange community transport	5 (38.5)	8 (61.5)	
Provide funds for fuel or transport	3 (23.1)	10 (76.9)	
Other (specify)[1]	3 (23.1)	9 (69.2)	1 (7.7)

REASONS FOR THE REFERRALS

CPD, Malnutrition, returned placenta, short primagravida, incomplete abortion, severe malaria, threatening abortion, prolonged labour, meningitis, psychiatric, cataract, excampsia, cyts hydrocele and fractured left arm.

[1] Bicycle ambulance, Accompanied by nurse, provide money and food

REPORTING

Table 127. What type of reporting do you do on a monthly basis?

Cadre of staff	Type of reporting	Yes, # and % facilities reported	Frequency of reporting
Medical Officer	EPI clinic	1 (7.7)	Monthly
	Training	2 (15.4)	Monthly
	Referral issues	1 (7.7)	Monthly
	Drug supply issues	1 (100)	Monthly
	Immunisation	1 (7.7)	Monthly
	Administrative issues	2 (15.4)	Monthly
	Overall facility functioning	1 (7.7)	Monthly
	OPD activities	2 (15.4)	Monthly
Nurse	Antenatal clinic	10 (76.9)	Monthly
	Maternal activities	10 (76.9)	Monthly
	Immunization	6 (46.2)	Monthly
	Nutrition	4 (30.8)	Monthly
	Growth monitoring	5 (38.5)	Monthly
	Community outreach	5 (38.5)	Monthly
	OPD activities	4 (30.8)	Monthly
	VHC activities	1 (7.7)	Monthly
	HSA activities	3 (23.1)	Monthly & Quarterly
	Volunteer activities	3 (23.1)	Monthly & Quarterly
	Training issues	2 (15.4)	Monthly & Quarterly
	Referral issues	4 (30.8)	Monthly
	Drug supply issues	6 (46.2)	Monthly
	Other (specify)	6 (50)	Monthly & Quarterly
Environmental Health Officer	Immunization	1 (7.7)	Monthly
	Hygiene & sanitation	1 (7.7)	Monthly
	Activity reports	1 (7.7)	Monthly & Quarterly
	Community outreach	1 (7.7)	Monthly & Quarterly
HAS	Immunization	11 (84.6)	Monthly
	Nutrition, VA	5 (38.5)	Monthly
	Growth monitoring	8 (61.5)	Monthly
	Community outreach	6 (46.2)	Monthly & Quarterly
	VHC activities	7 (53.8)	Monthly & Quarterly
	HSA activities	8 (61.5)	Monthly & Quarterly
	Volunteer activities	5 (38.5)	Monthly & Quarterly
	DRF issues	1 (7.7)	Quarterly
	Other (specify)	7 (58.3)	Daily, Monthly & Quarterly
Volunteer	Immunization	1 (7.7)	Monthly

	Nutrition, VA	1 (7.7)	Monthly
	Growth monitoring	1 (7.7)	Monthly
	Community outreach		
	VHC activities	2 (15.4)	Every 2 days & Quarterly
	HSA activities	1 (7.7)	Quarterly
	Volunteer activities	3 (23.1)	Quarterly
	DRF issues		
	Other (specify)	2 (16.7)	Quarterly

Table 128. Have you received feedback in the last three months from reports sent to the district

Received feedback	**# and %**
Yes	2 (15.4)
No	9 (76.9)
Don't know	1 (7.7)

Table 129. Do you have at least a month supply of the following

Item	**Yes, # and %**	**No, # and %**
MoHP Health Passport	4 (30.8)	9 (69.2)
Antenatal cards	5 (38.5)	8 (61.5)
Underfive cards	7 (53.8)	6 (46.2
Maternal cards	4 (30.8)	9 (69.2)

Table 130. Do you receive any funding from the district?

Receive funding	**# and %**
Yes	0
No	12 (100)

Table 131. Do you collect any fees for services?

Collect fees	**# and %**
Yes	8 (61.5)
No	5 (38.5)

Services fee collected from:
Health passports, In-patient services, Sale of mosquito nets, Family planning methods, Consultation, deliveries

What the money is used for:
- Buy drugs and conduct outreach

ANNEX 4: Community Assessment Report

VILLAGE HEALTH COMMITTEES (VHCs), HEALTH SURVEILLANCE ASSISTANTS (HSAs), AND GROWTH MONITORING VOLUNTEERS (GMVs): A COMMUNITY ASSESSMENT SUMMARY REPORT

Written in Preparation for the Detailed Implementation Plan

"Improved Child Survival in Nsanje District, Malawi, Through Community Based Interventions and Strengthening of the Health Delivery Infrastructure."

April 2003

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ACKNOWLEDGEMENTS

The international Eye Foundation (IEF) and Nsanje District Health Management Team (DHMT) wishes to thank the following people for their efforts in making the community assessment successful.

1. Edina Tembo, Child Survival Project Manager
2. Frank Chola, Administrator, Child Survival Project
3. George Mekiseni, Monitoring and Evaluation Trainer, Child Survival Project.
4. Elton Chiumia, HIV/AIDs Trainer, Child Survival Project
5. Wasili Mathumula, DEHO, Nsanje District Hospital.
6. F. Kachulu, SHSA, Ndamera Health Center.
7. Peter Mkwanju, Driver, Child Survival Project.
8. Geoffrey Ezepue. MD, IEF Country Director
9. Gwen O'Donnell, Child Survival Vitamin A Coordinator, IEF/ Headquarters.

TABLE OF CONTENTS

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

EXECUTIVE SUMMARY

The International Eye Foundation in collaboration with Nsanje DHMT is pleased to submit this report on the results of the community assessment that was conducted in Nsanje District in April 2003. The objective of the assessment was to assess the type of volunteers available in the communities, the type of training they have gone through and the type of supervision they carry out in the communities.

Most VHCs were formed a long time ago and there is dire need for training of all VHCs. The VHCs are comprised mostly of 10 members. Although the majority indicated that they conduct community meetings, there are no records of such meetings that are kept. Generally, the relationship with HSAs was reportedly good. It was pleasing to note that 70% of VHCs reported to have meetings with the entire community for health talks. However, the results revealed that 42.9% of VHCs could not remember the date when they had their last meeting. The assessment further revealed that VHCs need to be trained on the advantages of vitamin A to both mothers and children. On the other hand, it was it was pleasing to hear that 87.5% of the VHCs mentioned that iron tablets should be given to pregnant mothers

All the HSAs stated that they work with the VHCs for village inspections, disease surveillance, and water chlorination. Only 67% reported their last meeting with the VHC the month preceding the survey (March 2003). The rest reported meeting with their respective VHC in February and April. About 89% of the HSAs reported that when they had problems, they reported them for discussions with the Headman/chief and 76% mentioned discussions with the VHC. Lack of transport and supplies, such as reporting forms, was the major constraint for most of the HSAs.

A greater number of the HSAs (55%) mentioned health talks as a way to improve the health status of communities while the rest mentioned encouraging good sanitation, supervision, provision of san plats, and training of DRF volunteers as ways to improve health status. However, the results indicated that most HSAs know very little about vitamin A and iron tablets.

Although all the HSAs were interviewed and appointed by the DHO, 22% never received any training, 78% received one refresher course, and the rest had no refresher training. The responsibility of the HSAs varied but 100% mentioned conducting under 5 clinics. Similarly, reporting was quiet variable with 78% sending it to the SHSA and the rest directly to the District Environmental Health Officer.

Most of the GMVs were trained a long time ago while some were not even trained. All GMVs mentioned weighing children as their major responsibility among other minor tasks. GMVs interacted frequently with HSAs and the VHCs. Among the big problems mentioned were lack of training and no proper shelters. Others mentioned a lack of recognition (e.g. no uniform), a lack of motivation, and HSAs living far away from the villages.

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

OBJECTIVE OF THE ASSESSMENT

The objective of this assessment was to find out how these Growth Monitoring Volunteers (GMVs), Health Surveillance Assistants (HSAs), and Village Health Committees (VHCs) were chosen or formed, and how and when they were trained. The relationship these cadres of workers have with communities, health volunteers, and health services was also explored. The purpose of the assessment was to confirm anecdotal reports of a lack of health volunteers, a lack of VHCs, a lack of initial and refresher training, and a lack of supervision.

The assessment took place from April 16th to 18th, 2003. Ten villages were randomly selected from the district's six zones. From these 10 villages, 10 VHCs, 6 GMVs and 9 HSAs were found and interviewed. The zones, villages, and team members are detailed in Table 1.

Table 1. Zones, Villages, and Team Members in Community Assessment

ZONE	VILLAGES	TEAM MEMBERS
BOMA ZONE	a. Kanaventi b. Chipwembwe c. Mchacha d. Mankhusu	L Nkhunga G. Mekiseni
TENGANI ZONE	a. Lukwa b. Nyanga. c. Chikhau.	W. Mathumula E. Tembo F. Chola
SOUTH ZONE	a. Mlamba b. Khumbulani	E. Chiumia F. Kachulu

A. VHC RESULTS

10 VHCs Interviewed

Formation of VHCs – Most VHCs were formed a long time ago. Some were formed as far back as 1986, two in 1997 and one in 2003. (Refer table 1 for more details.) There is a great need for training for all VHCs.

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

70% of the VHCs reported to have 10 members in their committee. 60% of them reported to inspect latrines and rubbish pits, while 50% mentioned they encourage people to keep their surroundings clean. 70% reported to have monthly meetings, while 30% did not. At these meetings they reported discussing many things, including sanitation (42.9%) and how to avoid disease. (Refer to Table 4b.). It was noted that even though they do conduct meetings, none reported to any record of meetings.

Relationship - 100% of them said that their relationship with HSAs was "good." 80% reported working directly with the HSAs from the nearest health post/center. During their meetings, they reported collaboration on a number of activities, such as disease surveillance, weighing of the U5 children, encouraging the community to have latrines, etc…. (For more detail refer table 6c.)

Training status - 50% of VHCs reported receive training from the HSAs. 40% said to have received training on borehole maintenance, while 20% were trained on water chlorination, 20% on cleaning toilets, and 20% on general sanitation, and 20% and on-the-job training.

Interaction - 60% of them said that they interact with the Health Center to report disease outbreaks, to get supplies supply of ORS, to involve the community at health centers, and to have supervision during household inspections. It was pleasing to note that 70% of VHCs reported to have meetings with the entire community for health talks (Refer to Table 10b). However, the results revealed that 42.9% of VHCs could not remember the date when they had their last meeting.

Vitamin A - 70% of VHC reported recognizing vitamin A, while 50% were correctly able to identify its use. It is clear that the VHCs need to be trained on the advantages of vitamin A to both mothers and children.

Iron tablet - 80% of VHCs identified correct usage of an iron tablet. Of these, it was pleasing to hear that 7 out 8 (87.5%) mentioned that it should be given to pregnant mothers.

VHC RESULTS ACCORDING TO QUESTION

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

Question 1. When was your VHC formed?

Table 1.

When VHC formed	No of VHCs	%
1986	1	10%
1990	1	10%
1992	1	10%
1993	1	10%
1996	1	10%
1997	2	10%
2000	1	10%
2002	1	10%
2003	1	10%

Question 2. How many members are present in your VHC.

Table 2.

No of members	No of VHC	%
10	7	70%
10	1	10%
6	1	10%
12	1	10%

Question 3. What are the roles and responsibilities of the VHC in this village?

Table 3.

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

Roles & Responsibilities	No of VHCs	%
Inspection of latrines & rubbish pits	6	60%
Encourages people to keep their surroundings clean	5	50%
Weighing of the under five children	2	20%
Promoting the need of having clean households	1	10%
Preventing children from diseases	1	10%
Giving Health talks	1	10%
Chlorination of water	1	10%

Question 4a. Do you have monthly meetings?

Table 4a

Monthly meetings	No of VHCs	%
Yes	7	70%
No	3	30%

Question 4b. What do you discuss during those meetings?

Table 4b

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

Discussions specified	No of VHCs	%
Encouraging each other to keep surroundings clean and on how to avoid diseases	3	42.9%
Disease surveillance	1	14.3%
Supervision of making sanplats	1	14.3%
VHCs being models of the community	1	14.3%
The need of cleaning u - 5 shelters	1	14.3%
Treatment of diarrhoea cases & Family Planning	1	14.3%

Question 5a. Do you have minutes of what you discussed?

Table 5a

Have minutes?	No of VHCs	%
No	10	100%

Question 6a. Do you work with the HSA from the nearest health post and /health center?

Table 6a

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

work with HSA	No of VHC	%
Yes	8	80%
No	2	20%

Question 6b. What is the nature of your relationship with the HSA?

Table 6b

Relationship with HSA	No VHCs	%
Good relationship	8	100%

Question 6c. What do you do with him/her?

Table 6c.

Activities with HSA	No of VHCs	%
Disease surveillance	1	12.5%
Weighing of U - 5 children	1	12.5%
Encouraging the community to have pit latrines	1	12.5%
Building of bath shelters digging of rubbish pits	1	12.5%
Reporting of any outbreaks	1	12.5%
Collaboration in chlorination of water	1	12.5%

Question 7a. Has the VHC ever received training from the HSA?

Table 7a

Received training from HSA	No of VHCs	%
Yes	5	50%
No	5	50%

Question 7b. Please explain the training(s).

Table 7b

Type of training	No of VHCs	%
Borehole maintenance	2	40%
Chlorination of water	1	20%
Cleaning toilets	1	20%
General sanitation	1	20%
On the spot training	1	20%

Question 8a. Do you interact with the nearest health center?

Table 8a

Interact with Health center	No of VHCs	%
Yes	6	60%
No	4	40%

Question 8b. How do you interact with the nearest health center?

Table 8b

How they interact	No of VHCs	%
Reporting any outbreaks	1	16.7%
Disease case management	1	16.7%
Supply of ORS	1	16.7%
Meeting/involvement of the community at H/centers	1	16.7%
Supervision during household inspections	1	16.7%

Question 8c. What is the nature of your relationship?

Table 8c

Nature of relationship	No of VHCs	%
Good relationship	6	100%

Question 9a. Have you ever conducted any meeting with the entire community?

Table 9a

Meeting with entire community	No of VHCs	%
Yes	7	70%
No	3	30%

Question 9b. What health talks did you have during these meetings?

Table 9b

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

Kinds of health talks	No.of VHCs	%
Hygiene at water points, toilets, and surroundings	1	14.3%
Prevention of diseases & environmental surroundings	1	14.3%
General cleanness	1	14.3%
Sanitation	1	14.3%
Agricultural activities, cholera awareness & water chlorination hygiene	1	14.3%
Hand washing	1	14.3%
Borehole maintenance and HIV/AIDS messages	1	14.3%

Question 9c. When did you have your last meeting with the community?

Table 9c

Last meeting with community	No. VHCs	%
Last year 2002	1	14.3%
September 2002	1	14.3%
Long time ago	1	14.3%
April 2003	1	14.3%
Could not remember	3	42.9%

Question 10a. Do you know what this is [*show vitamin A capsule*]

Table 10a.

Identify capsule	No of VHCs	%
Yes	7	70%
No	3	30%

Question 10b. Can you please tell me what it does and who should receive it?

Table 10b

What does it do	No of VHCs	%
Protects children from disease, eye sight(blindness) and increase HB	3	14.3%
To keep good health of children	1	14.3%
Prevent measles and fever	1	14.3%
To increase HB	1	14.3%
Do not know	1	14.3%

Question 10c. Who should receive it?

Table 10c

Who should receive it	No of VHCs	%
Under five children	5	14.3%
Sometime given to adults	1	14.3%
Any person who has not enough Vitamin A	1	14.3%

Question 11a. Do you know what an iron tablet is[*show iron/folate tablet*]

Table 11a

Able to identify iron tablet	No of VHCs	%
Yes	8	80%
No	2	20%

Question 11b. Can you please tell me what it does?

Table 11b

What iron tablet does	No of VHCs	%
Prevents mothers from disease	1	12.5%
Increases HB.	3	37.5%
Increases blood especial to pregnant women/mothers & Children	1	12.5%
Boosts up HB level	1	12.5%
Increases blood to anyone who is anemic	1	12.5%

Question 11c. Who should receive it?

Table 11c

Who should receive	No of VHCs	%
Pregnant mothers/women	7	87.5%
Any person with low Hb and anyone who looks anaemic	1	12.5%

B. HSA RESULTS

9 HSAs INTERVIEWED

Interaction Only 2 (12.5%) reported to interacting with the health center, and the remainder reported they did not (87.5%). The majority of HSAs interview reported their relationship was "bad."

Work with VHCs 100% said that they work with VHCs. The major activities they performed together were village inspections, disease surveillance, and water chlorination. 67% (6 out of 9) reported their last meeting with the VHC was the month preceding the survey (March 2003). The remaining HSAs reported meeting with their respective VHC in February and April, respectively. Only one HSA reported not to have met with the VHC.

6 out of 9 (67%) of the HSAs reported to work with volunteers in the community, namely. GMVs, ADRA, DRF, and community health workers (Refer to Table 11c.) The mentioned activities they collaborate on include family planning, growth monitoring, HIV/AIDS, delivery services and cleaning water sources. It was interesting to note that whenever they had problems, 89% reported discussions with the Headman/chief, and 76% mentioned discussions with the VHC.

Job Constraints - All HSAs mentioned a lack of transport as the major problem that impeded their work. A lack of supplies, such as report forms, was also mentioned as a big problem. See Table 13 for a ranking of problems.

Improving Health Status at Community Level - 5 out of the 9 HSAs, or 55%, mentioned health talks as a way to improve the health status of communities. 33% mentioned encouraging good sanitation, and 22% mentioned supervision, provision of sanplats, and training of DRF volunteers, respectively as ways to improve health status. Refer to Table 14 for a complete list

Vitamin A identification - All of the 9 HSAs said they recognized a vitamin A capsule, however, only 33% said it prevents disease, while 67% said it prevent blindness. This proves HSAs know very little about vitamin A use. 100% of the HSAs said that it should be given to U5 children, and 44% reported postpartum. 22% said it should be given to lactating mothers, and 22% also said it should be given to adults with eye problems.

Identification of Iron Tablet – All of the HSAs reported recognizing iron. As for its use, 67% said that it is used to increase HGB level, 22% said it prevented anemia, and 11% said it helped bone formation. 55% reported it should be given to pregnant mothers, 22% to children with low HGB level and adults with low HGB, respectively, and 11% to underweight children.

The forming of HSAs, Training & Refresher Courses -100% of the HSAs were interviewed and appointed by a DHO. Training varied courses varied (1998, 1980, 1994 and 1997), as shown in Table 2. Two HSAs never received any form of training. 78% received one refresher course while the rest had no refresher training.

Responsibilities - 100% of HSAs mentioned conducting Under 5 clinics. 89% mentioned

supervision of VHCs and village inspection. A number of other things were also mentioned as shown in table 4a, for example supervision of DRFs.

Immediate supervisor - 78% (7) mentioned that their immediate supervisor was a Senior HAS, as opposed to 2 (22%) who mentioned DEHO. The majority of them, 4 out of 9, (44.5%) were last supervised in March 2003. 3 mentioned were last supervised in April of 2003, one was supervised in January of 2003, and one in January of 2000.

Reporting - They all said they had sent a report to their immediate supervisors; 22% sent report to the DEHO (District Environmental Health Officer) and 78% to the SHAs (Senior HAS).

Constraints - 89% reported problems with supplies and 1 reported transportation problems.

THE DATA FROM OF THE HSA QUESTIONNAIRE

Question 1. How did you become an HSA?

Table 1

How did you become an HAS?	No of HSAs	%
Interviewed by DHO	9	100%

Question 2. When were you trained as an HSA?

Table 2

When	No of	%

trained as HAS?	HSAs	
1988	1	11%
1980	1	11%
1994	2	22%
1997	3	33%
Not trained	2	22%

Question 3. How many refresher courses have you attended as an HSA?

Table 3

How many refreshers	No of HSAs	%
None	7	78%
One	2	22%

Question 4a. What are your responsibilities?

Table 4a

Responsibilities?	No of HSAs	%
Supervision of VHC	8	89%

Supervision of CBDs	0	0
Supervision of GMV	3	33%
Conducting health talks	7	78%
Village inspection	8	89%
Conducting under-5 clinics	9	100%
Supervision of DRF	0	0
Reporting of outbreaks	5	56%
Others(specify)	1	11%
Supervision of HSA	1	11%
Treating minor ailments	1	11%
Distribution of condoms	1	11%
Chlorination of water	1	11%
Conducting nutrition clinic	1	11%
Supervision of TBAs	2	22%
Formation of VHCs	1	11%
EPI	1	11%

Question 5. Who is your immediate supervisor?

Table 5

Immediate supervisor	No of HSAs	%
SHSA	7	78%

DEHO	2	22%

Question 6. When was the last time you were supervised?

Table 6.

Last time supervised	No of HSAs	%
March 2003	4	44.5%
April 2003	3	33.5%
2000	1	11%
Jan 2003	1	11%

Question 7a. Do you do any kind of reporting?

Table 7a

Any kind of reporting	No of HSAs	%
Yes	9	100%
No	0	0%

7b. What kind of reporting and to whom?

Table 7b

To whom are reports sent?	No of HSAs	%
DEHO	2	22%

SHSA	7	78%

Question 7c. What obstacles do you face in completing reports?

Table 7c

Obstacles?	No of HSAs	%
Inadequate stationery	8	89%
Transport	1	22%

Question 8a. Do you interact directly with the nearest health center?

Table 8a

Direct interaction with h/Center	No of HSAs	%
Yes	8	89%
No	1	11%

Question 8b. What is the nature of your relationship with the health Center?

Table 8b.

Nature of relationship	No of HSAs	%
Good	7	87.5%

Very good	2	12.5%

Question 9a. Do you interact directly with the nearest health post?

Table 9a.

Do you interact with H/post?	No of HSAs	%
Yes	2	12.5%
No	7	87.5%

Question 9b. What is the nature of your relationship with the health center?

Table 9b

Nature of relationship?	No of HSAs	%
Good	2	100%

Question 10a. Do you ever work with the VHCs in the community?

Table 10a.

Work with VHCs?	No of HSAs	%
Yes	9	100%

Question 10b. Can you please explain what you do together?

Table 10b.

What you do together?	No of HSAs	%
Village inspection	4	44%
Disease surveillance	3	33%

T.B. Follow-up	1	11%
Health Education	2	22%
Borehole clearing & maintenance	2	22%
Advise sick to go to hospital	1	11%
Water chlorination	4	44%
Under five clinic	2	22%
Sanitation	1	11%
Meetings	1	11%
Data collection	1	11%

Question 10C. When was the last time you met with the VHC?

Table 10c.

When last met with VHC?	No of HSAs	%
March 2003	6	67%
Feb 2003	1	11%
April 2003	1	11%
Not met	1	11%

Question 11a. Do you work with any volunteers in the community?

Table 11a

Work with volunteers?	No of HSAs	%

Yes	6	67%
No	3	33%

Question 11b. Can you please identify the type of volunteers you work with?

Table 11b

Type of volunteers you work with?	No of HSAs	%
DRF	1	16.6%
VHC	1	16.6%
Anti - AIDS club	1	16.6%
ADRA-Volunteers	3	50%
Com Health worker	1	16.6%
TBA	1	16.6%
GMV	2	33.3%

Question 11c. Explain what you do together.

Table 11c

What you do together?	No of HSAs	%
F P activities	3	50%
G Monitoring activities	3	50%
Delivery services	1	16.6%

HIV/AIDS activities	2	33.3%
Cleaning water source	1	16.6%

Question 12. When there is a health problem in the community whom do you discuss it with?

Table 12.

Whom you discuss problems with?	No of HSAs	%
Headman/Chief	8	89%
VHC	7	78%
Political leader	1	11%
M.A.	1	11%
SHSA	1	11%
Sister in charge	1	11%

Question 13. What are the things that make your job difficult? Please list problems and rank them.

Table 13.

Things that make your job difficult?	No of HSAs	%
Big Problems		
Lack of transport	9	100%

Inadequate w/scales	1	11%
No initial training	1	11%
No protective wear	1	11%
Lack of support from NDH	1	11%
Lack of supplies	1	11%
No involvement in training ,planning & implementation	1	11%
Inactive VHC	1	11%
Medium problems		
No protective wear	1	11%
Poor communication with NDH	1	11%
Inadequate w/bags	1	11%
Lack of drug supply	1	11%
Inadequate stationery	2	22%
Little Problems		
No uniform	1	11%
No protective wear	1	11%
Poor communication	1	11%

Question 14. What can be done at the community level to improve the health status of the community?

Table 14.

How to improve health status of the community?	NO of HSAs	%
Encourage good sanitation	3	33%
Health talks	5	55%
Supervision	2	22%
Collaboration	1	11%
Rules & resp. of volunteers	1	11%
Borehole	1	11%
Provision of sanplats	2	22%
Shelter for U/Five	1	11%
Training DRF volunteers	2	22%
Training VHC	1	11%
Communication	1	11%
Inspection of households	1	11%
Disease surveillance	1	11%
Meeting local leaders	1	11%

Question 15a. Do you know what this is? [***show vitamin A capsule***]

Table 15a.

Identify A capsule	No of HSAs	%
Yes	9	100%

Question 15b. Can you please tell me what it does?

Table 15b.

What does it do?	No of HSAs	%
Prevent disease	3	33%
Prevent blindness	6	67%

Question 15c. Who should receive Vitamin A?

Table 15c

Who should receive VA?	No of HSAs	%
Lactating mothers	2	22%
U/five children	9	100%
Postnatal	4	44%
Adults & eye problem	2	22%

Question 16a. Do you know what an iron tablet is? [*show iron/folate tablet*]

Table 16a.

Identify Iron tablet	No of HSAs	%
Yes	9	100%

Question 16b. Can you please tell me what it does?

Table 16b.

What does an iron tablet do?	No of HSAs	%

Increase Hgb level	6	67%
Formation of bones	1	11%
Prevent anaemia	2	22%

Question 16c.

Who should receive the iron tablet?

Table 16c.

Who should receive iron tablet?	No of HSAs	%
Pregnant mothers	5	55%
Children under weight	1	11%
Children with low Hgb level	2	22%
Adults with low Hgb level	2	22%

C. GMV RESULTS

6 GMVs INTERVIEWED

Formation – The assessment revealed that 4 (66.7%) of GMVs who were interviewed were chosen by the community, where as 2 (33.3%) were chosen by a village chief.

Training - 3 of the GMVs were trained in 1981, 1991 and 1996, while 3 never received any training.

Responsibilities – 100% of GMVs reported that they weighed children. 50% (3) mentioned cleaning surroundings, 33.3% (2) mentioned health talks on family planning, and 1 (16.7%) identified assisting National Immunization Days/ Vitamin A supplementation

Supervision - HSAs were reported to be the immediate supervisor of the GMVs. 4 (66.7%) of them were last supervised in March 2003 and in April. They all reported to interact directly with the nearest health center/post and their relationship with the health center staff was reported to be "good." The assessment also revealed that they work with VHCs.

Vitamin A - 4 of the 6 GMVs (66.7%) reported recognizing Vitamin A, the other 2 did not. Of those 4, 3 gave a correct answer for what it is used for (protects from disease, gives strength to a child, prevents blindness). 3 of them said U5 children should get it, 1 said mother should get it postpartum.

Iron – Again, 4 GMVs recognized iron, and responded that it increases hemoglobin. 4 responded that it should be given to pregnant women, 3 said it should go to anemic adults, and 1 identified children U5.

Constraints - Among the big problems mentioned were lack of training and no proper shelters. Others mentioned a lack of recognition (e.g. no uniform), a lack of motivation, and HSAs living far away from the villages etc (Refer to Table 12b for more details on the ranking of problems.)

Improving Health at Community Level - In response to what could be done at the community level to improve health status, 13 different things were mentioned. Among other things, they pointed out the need for the community to have enough pit latrines, intensive health education, community mobilization, and a reliable supply of drugs to the community. (Refer to Table 13 for more details.)

THE DATA FROM OF THE GMV QUESTIONNAIRE

Question 1. How did you become a GMV?

Table 1.

How did you become a GMV?	No of GMVs	%
Chosen by Chief	2	33.3%
Chosen by community	4	66.7%

Question 2. When were you trained as GMV?

Table 2.

When trained as GMV?	No of GMVs	%
Never trained	3	50%
1989	1	16.7%
1991	1	16.7%
1996	1	16.7%

Question 3. How many refresher courses have you attended as GMV?

Table 3.

How many refreshers attended?	No of GMVs	%
None	5	83.3%
One	1	16.7%

Question 4.What are your responsibilities? What services do you provide in the village as GMV?

Table 4.

Responsibilities?	No of GMVs	%
Weighing Children	6	100%
Assist in NID VA supplementation	1	16.7%
Cleaning the surroundings	3	50%
Health talks on F/planning & HIV/AIDS	2	33.3%

Question 5. Who is your immediate supervisor?

Table 5.

Immediate supervisor?	No GMVs	%
HSA	6	100%

Question 6. When was the last time you were supervised?

Table 6.

When supervised?	No of GMVs	%
March 2003	4	66.7%
April 2003	2	33.3%

Question 7a. Do you interact directly with the nearest health center and /or health post?

Table 7a.

Direct interaction with health center?	No of GMVs	%
Yes	6	100%

Question 7b. What is the nature of your relationship with the Health center/post?

Table 7b.

Nature of relationship?	No of GMVs	%
Good	6	100%

Question 8a. Do you ever work with the VHC in this community?

VHCs, HSAs, and GMVs: A Community Assessment Summary Report

Table 8a

Work with VHC?	No of GMVs	%
Yes	6	100%

Question 8b. Can you please tell explain what you do together?

Table 8b.

Activities done together?	No of GMVs	%
Inspection of villages (sanitation)	4	66.7%
Water supply & hygiene	2	33.2%
Chairman	1	16.7%
Distribution of ORS & Chlorine	1	16.7%
Weighing children	1	16.7%

Question 9. What support , if any, do you receive from the community?

Table 9.

Support from community?	No of GMVs	%
Cleaning the surroundings	1	16.7%
Encourage weighing children	2	33.3%
Encouragement	3	50%
Community participation	3	50%

Question 10a. Do you know what this is? [*show vitamin A capsule*]

Table 10a.

Identify VA?	No of GMVs	%
Yes	4	66.7%
No	2	33.3%

Question 10b. Can you please tell me what it does ?

Table 10b.

What VA does?	No of GMVs	%
Protects from disease	1	25%
Gives strength to children	1	25%
Increases HB	1	25%
Prevents blindness	1	25%

Question 10c. Who should receive VA?

Table 10c.

Who should receive VA?	No of GMVs	%
Under 5 children	3	75%
Postnatal mothers	1	25%

Question 11a. Do you know what an iron tablet is? [*show iron/folate tablet*]

Table 11a.

Identify Iron Tablet	No of GMVs	%
Yes	4	66.7%

No	2	33.3%

Question 11b. Can you please tell me what it does?

Table 11b.

What iron tablet does?	No of GMVs	%
Increase HB	4	66.7%

Question 11c. Who should receive iron tablets?

Table 11c.

Who should receive iron?	No of GMVs	%
Pregnant women	4	100%
Anaemic adults	3	75%
Children under five	1	25%

Question 12a What are the things that make your job difficult? Please list problems and rank them.

Table 12a.

Rank problems	No of GMVs	%
Big problem	6	100%

Medium Problem	1	16.6%

Question 12b. Specify the problems.

Table 12b.

Specify problems		
Big problems		16.7%
No recognition(Uniform)	1	16.7%
No motivation	1	16.7%
HSA lives away from the village	1	16.7%
inadequate supplies on cholera	1	16.7%
Resistance rom caregivers to attend clinics	1	16.7%
Shortage of ORS & Chlorine	1	16.7%

Lack of training	3	50%
No proper shelters	2	33.4%

Medium Problems		
Change of members	1	100%

Question 13.What can be done at the community level to improve the health status of the community?

Table 13.

Activities to be done?	No of GMVs	%
Enough pit latrines	1	16.7%
Intensify health education	1	16.7%
Community mobilization	1	16.7%
Supply drugs to community	1	16.7%
Meeting on sanitation	1	16.7%
chlorination of water	1	16.7%
Encouragement	1	16.7%
Interest to participate	1	16.7%

Conducting monthly meetings	1	16.7%
Provide enough boreholes	1	16.7%
To build our own health facility	1	16.7%
Improve supervision & monitoring	1	16.7%
Allocate HSAs at the villages & health unit	1	16.7%

CONCLUSION

Involvement of VHCs and GMVs at the community level with the help of HSAs will help in achieving the project's goal of increasing the practice of healthy behaviors.

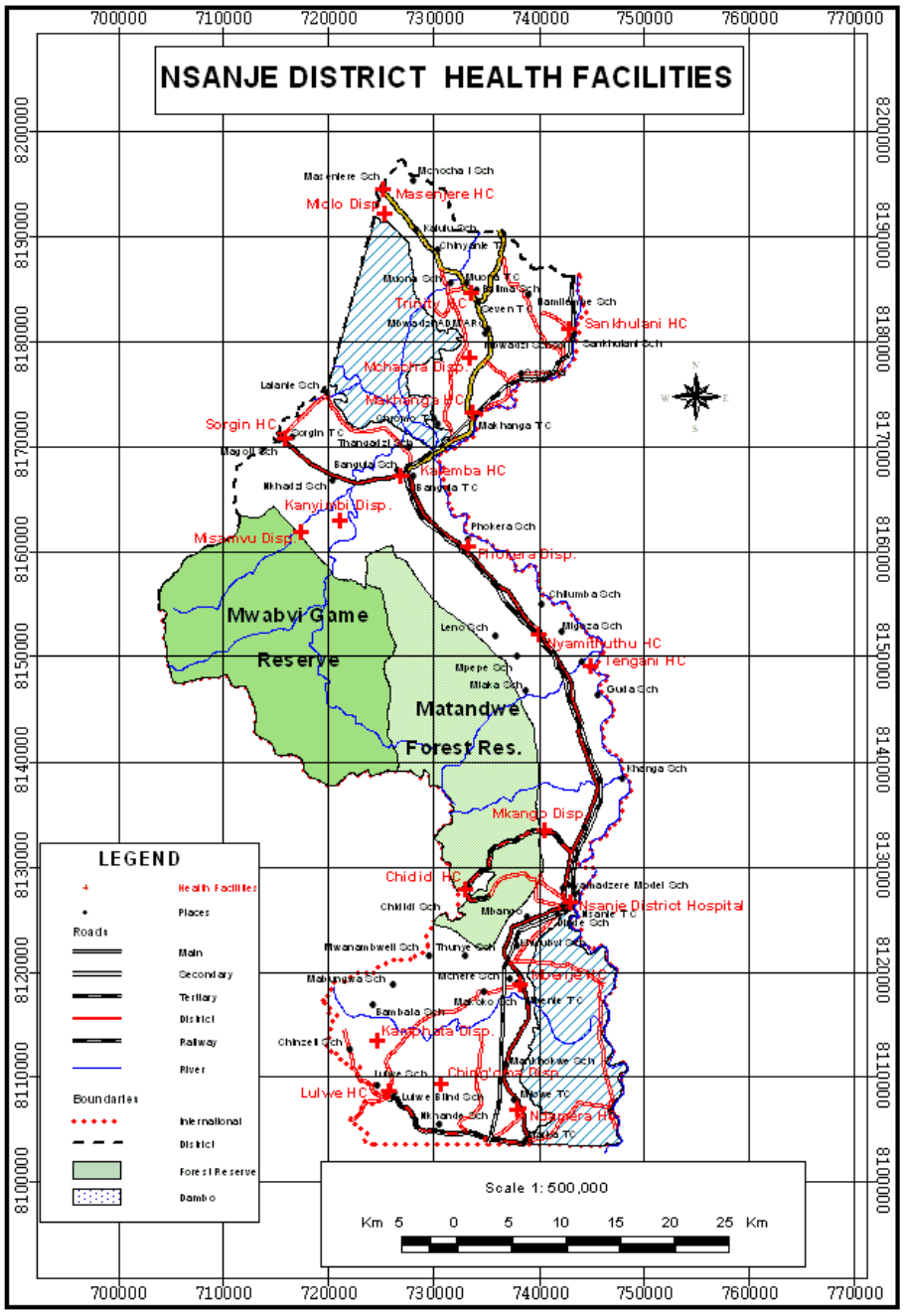
Strengthening community participation in health interventions will increase demand for quality services and to achieve this, the VHCs, GMVs and HSAs require undergoing training. The majority of the HSAs who are supposedly the supervisors of the VHCs and GMVs are not trained. The VHCs and the GMVs need training in: vitamin A, and iron tablet supplementation to mothers and children, plus basic IMCI key messages to enable them recognize key danger signs and refer ill children to health facilities. They need to be made aware of the importance of close collaboration between the volunteers and the HSAs. To achieve this the HSAs should be close to the community they serve in order promote interaction.

Results from the assessment demonstrate a need for close supervision and monitoring. Proper reporting forms should be developed to help in this regard.

Overall the HSAs, GMVs and VHCs are an essential part of the community if the practice of healthy behaviors by the community will be improved and result in increased quality of life at the community level.

ANNEX 5: Nsanje Map

Annex 5
Health Facility Map



ANNEX 6: Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN INTERNATIONAL EYE FOUNDATION, MALAWI, AND THE DISTRICT HEALTH MANAGEMENT TEAM, NSANJE, MALAWI

1. PREAMBLE

Whereas, the International Eye Foundation (IEF) is an International Non-governmental humanitarian organization operating in Malawi, and the Ministry of Health and Population (MOHP), Nsanje District is the principal authority for provision of health care in Nsanje district.

Whereas, IEF has funds from the U.S. Agency for International Development (USAID) to implement a Centrally funded Child Survival Project in Nsanje District in collaboration with the District Health Office.

Whereas, both the IEF and the MOHP seek common objectives to improve health for the people of Nsanje District and seek to utilize funds from IEF and the MOHP in a complementary manner.

Therefore, this Memorandum Of Understanding (MOU) is between International Eye Foundation Malawi represented by the Country Director (hereafter referred to as IEF), and the Nsanje District Health Management Team, represented by the District Health Officer (hereafter referred to as DHMT) resolve to create a partnership.

The International Eye Foundation and the Nsanje District Health Management Team hereby form a management committee to oversee and supervise the implementation of the child survival program. The name of said committee is *Child Survival Management Committee (CSMC*).

1.1 Purpose

The purpose of this memorandum of understanding is to describe the principles for joint collaboration between the parties described above.

All parties accept the stated Goal, Purpose and Outcomes for the four year child survival project funded by U. S. Agency for International Development (USAID) entitled "I*mproved Child Survival in Nsanje District, Malawi, Through Community-Based Interventions and Strengthening of the Health Delivery Infrastructure,"* and further described in the Appendix.

Modification to the above can only be made through joint discussion and acceptance by all parties subject to approval by supporting donors.

1.2 Vision and Strategic Statement

1.2.1 All parties resolve to undertake the program following a jointly developed Vision and Shared Values

1.2.2 The Nsanje District Child Survival Management Committee (CSMC) aims at improving and strengthening the health status of mothers and children with community participation through the provision of an integrated strategy to successfully plan and implement an equitable, accessible, effective, efficient and sustainable child survival project by 2006.

2. ROLES AND RESPONSIBILITIES

2.1 International Eye Foundation

2.1.1 IEF is a private non-profit humanitarian Private Voluntary Organization that respects the local, social, cultural and religious values of the people of Malawi.

2.1.1 IEF works with governments and communities that demonstrate their willingness to improve the livelihood of the population in a cooperative and participatory manner.

2.1.2 IEF has the responsibility to ensure that assistance is provided to the targeted beneficiaries irrespective of sex, political, religious, or ethnic affiliations.

2.1.3 IEF under the humanitarian code of conduct maintains impartiality in dealing with issues related to politics, factions, clans and ethnicity.

2.1.4 IEF's presence in Nsanje District is dependent on co-operation, sharing of information, security, and the availability of funds.

2.2 Ministry of Health, Nsanje

2.2.1 The Nsanje District Health Office, represented by the District Health Management Team (DHMT) has the responsibility to ensure that government resources are targeted to the population of Nsanje district for basic health care services.

2.2.2 The DHMT is the official mechanism for implementing government health policies, and all planning, organizing, implementing, communicating, and resource allocation benefiting the district. Through this mechanism, the IEF resources complement the District resources in a synergistic manner.

2.2.3 The DHMT is the mechanism for advocating health needs, plans, accomplishments, and resource to the District Development Committee.

2.2.4 The DHMT and IEF form the CSMC to ensure that all phases of the program are completed.

2.3 Community, Nsanje

2.3.1 The Traditional Authorities at the community level are the entry mechanism for participation by communities in all project activities.

2.3.2 The community is responsible to ensure that a good and positive relationship exists between the MOHP facilities and IEF presence, including, to the extent possible, that secure conditions prevail in the communities to permit project activities operate freely.

3. PROJECT EFFECTIVENESS AND HEALTH BENEFITS

3.1 All parties accept that Partnership promotes effective planning, implementation, and resource utilization, and establishes the foundation for all activities.

3.2 All parties resolve to focus resources on the priority health needs of the population and plan activities guided by a Results Framework with measurable objectives.

4. INSTITUTIONAL CAPACITY BUILDING

4.1 Approach

4.1.1 All parties seek to develop and implement project approaches that meet expectations of the Government (Essential Health Package); and state-of-the-art Child Survival interventions including but not limited to Community-based –

- Integrated Management of Childhood Illness;
- Nutrition rehabilitation (Hearth)
- Malaria (Bed net promotion)
- Voluntary counseling and testing (HIV)

4.1.2 All parties seek to develop and implement services in collaboration with communities and that incorporate client needs through dialogue.

4.1.3 All parties seek efforts to strengthen the technical and organizational capacity of the District MOHP team and supporting government departments to improve, increase, and maintain high quality health service delivery.

4.1.4 All parties seek efforts to establish sustainability by piloting cost-sharing at the District hospital.

4.1.5 All parties will participate fully in all major phases of the program including the following milestones:

- Detailed implementation plan (assessments, surveys, M&E framework, etc.)
- Annual/ quarterly work plans
- Annual reports
- Mid-term evaluation
- Final evaluation
- Proposal writing

4.1.6 IEF and the DHMT will jointly plan and execute all training. Training will only be conducted if relevant to achieve objectives and addresses skill and performance gaps identified in assessment. A training plan will be developed to guide these efforts.

4.1.7 Financial support for implementation, such as training, will be coordinated by the MOHP and IEF based on detailed plans and accepted Per Diem policies. (Said policy is attached to this agreement.)

4.2 Systems

4.2.1 All parties agree to strengthen cross cutting systems necessary to provide efficient services, including but limited to:

- Logistics: Policies and procedures for the continuous supply of essential medicines to health centers and communities will be developed and accepted.
- Vehicles: Policies and procedures for rational, economic, and accountable use of vehicles will be developed and accepted.
- Supervision and monitoring: Policies and procedures for effective and consistent supervision of staff will be developed and accepted.
- Behavior communication: Existing health education practices and methods will be evaluated and revised towards models emphasizing targeted behavior change.
- Quality assurance: Process Improvement methods will be employed requiring participation and commitment of the DHMT.

4.2.2 All parties agree that supervision, monitoring, and evaluation are essential components to providing quality health services. The development of effective systems will provide the foundation for all service delivery.

4.2.3 Reporting and documentation of implementation is essential to providing quality health services. The DHMT will use all available data reported and gathered for informed decision-making.

4.3 Organizational structure

4.3.1 The Nsanje District Child Survival Management Committee (CSMC) will organize and conduct an Organizational Capacity Assessment to assess key capacities and develop a Training and Technical Assistance Improvement Plan.

4.3.2 Both parties will strive to staff key positions in a complementary manner and establish policies that maximize retention of staff in the District for the duration of the period.

4.3.3 The organizational structures of both IEF and the District Health Office will strive to be complementary to maximize resources and enhance sustainability.

Management

4.3.4 The CSMC forms the bases for creating ownership for activities and decision-making.

4.3.5 IEF and the DHMT will meet once every month to discuss program and other related issues at a time and date convenient to both parties.

4.3.6 Every attempt will be made to schedule meetings with advance notice (at least 1 week) and at a time convenient to IEF and the DHMT, to avoid unnecessary disruption.

4.3.7 The DHMT will attempt to reach consensus on decisions and will document decisions in written minutes and memorandum.

4.3.8 The DHMT will develop a Code of Conduct, Rules and Procedures, and will document any Policies in written Memorandum, e.g., Per Diem for participating members.

4.3.9 Disputes and grievance arising from program implementation procedures will be discussed in a formal meeting either specifically called for that purpose or during the usual regular monthly meetings and only with the officially recognized DHMT/community representative and IEF.

4.3.10 All parties will maintain professional and cordial relationships that enhance cooperation and understanding.

4.3.11 The DHMT will actively participate in all planning, training, reporting, monitoring and evaluation activities required for program implementation.

4.3.12 The DHMT, where possible, feasible and necessary, will assist the IEF to establish a presence (office space in Nsanje) and assist the IEF staff to identify and negotiate reasonable accommodations as long as IEF continues to provide development assistance in the area.

4.4 Human Resource

4.4.1 Both parties strive to hire and manage staff that are qualified, motivated, and fulfill organizational and technical requirements.

4.4.2 IEF reserves the sole right to hire and dismiss staff and casual laborers hired with USAID and IEF project funding. IEF will determine the number of staff or casual laborers to be employed according to need.

4.4.3 The IEF employment process will be free and fair and be based on qualifications, experience, and merit during a transparent interview process. No ethnic, religious, and political considerations or influence will be entertained.

4.4.4 To the extent possible the DHMT will be represented in the interview panel to select staff that will be based in Nsanje area.

4.4.5 The District Health Officer has sole responsibility for all MOHP District staff whose management responsibilities fall under the MOHP.

4.4.6 The District Health Officer will seek to ensure, to the extent possible, that key staff are retained in their positions for the duration of the project. In the event of a position vacancy, replacement of staff will be made as quickly as possible.

4.4.7 All parties will provide clear job descriptions; will be supervised, monitored, and evaluated based on written performance standards. The supervision and monitoring schedule is to be determined, but must occur once per year at the very least.

4.5 Financial Resource

4.5.1 Both the MOHP and IEF retain ultimate legal responsibility for their financial resources and budgets.

4.5.2 All parties accept that the available resources must be used rationally for intended purpose and with accountability.

4.5.3 The IEF budget is limited and does not include a specific subgrant to the District. However, every attempt will be made to jointly plan activities that directly support DHMT annual work plans.

4.5.4 IEF retains the right of ownership of any assets purchased by IEF unless otherwise instructed by the donor.

4.6 External Relationships

4.6.1 All policies, plans, guidelines established and or developed to promote child health services will be available to the DHMT for guidance.

4.6.2 The DHMT will participate fully in the District Development Committee proceedings and other municipal functions for the purpose of advising and advocating community health needs.

4.6.3 The DHMT, where possible, will participate in any networking between other districts and or other health activities for the purpose of advising and advocating District health needs.

4.7 Sustainability

4.7.1 All parties express commitment to develop, plan, and implement services that enhance sustainability.

4.7.2 All parties agree to assess and develop plans for sustaining services that become part of the Detailed implementation plan.

4.7.3 All parties agree to explore diversification of revenue that is within the control of the DHMT and including cost-sharing strategies.

4.7.4 Any funds generated from cost-sharing will be strictly accounted, controlled, and reported.

5 COMMUNITY PARTICIPATION

5.1 All parties agree that strengthening social systems and community competencies are essential to community participation and ownership of program services.

5.2 All planning and implementation will be informed by community needs expressed through Traditional Authorities and directly from communities and families.

5.3 All parties agree that services will be culturally acceptable and appropriate to the environment.

5.4 Every attempt will be made to include opinion of the poor, of women, and the disenfranchised.

6 SECURITY

6.1 All parties accept that security must be provided for all assets and persons involved in the project.

7 MODIFICATION

7.1 During the term of this partnership the modification of program target(s) or program objective(s) must be jointly agreed upon by all parties and approved in writing by United States Agency for International Development (USAID).

7.2 If USAID determines that any part of the program needs to be changed all parties will comply with USAID's requirements and wishes.

8 PERIOD OF AGREEMENT

8.1 This Agreement shall commence on the date of signature, and shall continue in full force until termination of agreement.

9 TERMINATION

9.1 The partners recognize that entering into this agreement is at their own risk and cost. Therefore, this agreement can only be terminated in the following cases:

9.1.2 If there is a serious violation of obligations under this agreement, by either major partner. The violating partner must first be given notice in writing of the problem and suggested recourse from aggrieved party and given 60 day resolution period to address the matter. Following the resolution period the aggrieved may terminate the written agreement with 30 day written notice.

9.1.3 If USAID de-obligates grant funds.

9.1.4 If all partners agree in writing to nullify the agreement

10 RESOLUTION OF DISPUTES

10.1 All disputes under Agreement will be resolved through negotiations of the sides. In case the sides cannot reach agreement by means of negotiation, they have recourse to meditation by a to be mutually agreed upon mediator.

11. SIGNATURES

This Agreement is undertaken in a spirit of trust, cooperation and partnership, to the benefit of all parties.

We the undersigned have read, understood and agreed to the above points and therein append our signatures.

Nsanje District Health Management Team	International Eye Foundation
Mr. K. J. Chikonde District Health Officer	Dr. Geoffrey U. Ezepue, Country Director
Date	Date

ATTACHMENTS

- Project Executive Summary
- Per Diem Agreement
- CSMC Charter

ATTACHMENT 1

Executive Summary

The International Eye Foundation (IEF), in collaboration with the District Health Management Team (DHMT) of Nsanje District, Malawi, is submitting this proposal to USAID BHR/PVC's FY 2002 Child Survival Grants Program (RFA# 938-02-A-0500-18). The proposal describes a four-year child survival project and is entitled *"Improved Child Survival in Nsanje District, Malawi, Through Community-Based Interventions and Strengthening of the Health Delivery Infrastructure."*

The Republic of Malawi remains one of the poorest countries in sub-Saharan Africa. Nsanje District, in the southern extreme of the Lower Shire Valley, is one of the poorest districts in the nation, and has many of the country's lowest health indicators. Infant and under-five mortality rates in Nsanje are the highest in the nation, while under-five malnutrition is second highest. Unacceptably high and preventable mortality rates from pneumonia, malaria, and diarrhea impede child survival. HIV/AIDS results in thousands of under-five and adult deaths each year. Maternal mortality has dramatically increased in Malawi over the past ten years, directly impacting Nsanje women of childbearing age and, as a result, child health status.

The majority of Nsanje's population are subsistence farmers living below the poverty line. The 1998 national census shows Nsanje District's total population at 194,481. Of these, approximately 33,000 (17%) are children under five years of age, and 45,000 (23%) are women of childbearing age (15-49 years). Literacy rates are extremely low, especially among women. This is devastating because a high association exists between education levels, healthy behaviors, and health-seeking actions in Malawi.[1] The need for external assistance is great, but Nsanje District receives very limited support. For this reason, IEF responded to the Nsanje District Health Management Team's request in early 2000 to help develop this proposal. If funded, the project will represent the only *major* project in Nsanje striving to improve service delivery, increase community participation, and implement IMCI to reduce morbidity and mortality rates.

The Ministry of Health and Population (MOHP) infrastructure consists of the Nsanje District Hospital, one mission hospital, and 11 health centers providing basic services. The District's management is plagued by an inefficient use of resources, a lack of supervision and training, and logistical and transport bottlenecks. Coupled with very little external assistance, this makes Nsanje one of the neediest districts in Malawi.

Project objective: *Families and caretakers with young children increase the practice of healthy behaviors and seek medical care from quality sources*. To achieve this, the project will address three major Outputs:

1. Improve the District MOHP's capacity to provide and manage services. This will be achieved by strengthening planning, supervision, and evaluation skills, increasing inter-sectoral coordination, and introducing new financial sustainability strategies.

1. Improve and expand community participation supporting community-based interventions. This will be achieved through leadership training of village health committees, training volunteers, establishing health promotion strategies, and creating reliable mechanisms to distribute medical supplies.

[1] 2000 Malawi Demographic Health Survey.

2. Introduce community and facility-based IMCI in the District, along with complementing Hearth Positive Deviance, VCT/MTCT of HIV/AIDS, and BCC strategies.[2]

Child survival interventions will focus on the following:

- Improve Pneumonia case management (IMCI, training volunteers, and BCC). **20%**
- Improve Malaria case management and prevention (IMCI, training volunteers, bed net promotion, drug revolving funds, training shopkeepers, and BCC). **20%**
- Improve Diarrhea case management and prevention (IMCI, training volunteers, drug revolving funds, community-based promotion, and BCC). **15%**
- Improve Nutrition (IMCI, Hearth Positive Deviance Model, exclusive breast feeding promotion, immunization/vitamin A campaigns, and BCC). **20%**
- Strengthen EPI (IMCI, training health workers, and immunization/vitamin A campaigns, and BCC). **5%**
- Reduce MTCT (Establish VCT services, train health workers, promote exclusive breastfeeding, introduce "EBF role models," and BCC). **20%**

The project will create a synergy between community and facility-based IMCI and strengthened DHMT capacities. Management systems and supervisory structures will be strengthened to improve capacities at the community, health facility, and health system levels. The project will stimulate coordination between different District departments, as well as coordination between villages and health facilities. Furthermore, a team approach will be used for IEF/DHMT decision-making. Innovative sustainability strategies generating revenue for the District will also be introduced. These strategies will lay the foundation for the District to become financially self-sufficient.

The main partners in the project are the District Health Management Team, 11 MOHP health centers, and the District's 450 villages. This project has been discussed with the SO8 Team Leader, Mexon Nyirongo, of the USAID Mission in Lilongwe a number of times and, most recently, on the 28th of November 2001. The Mission supports this project as it combines health system, health facility, and community strengthening with increasing local DHMT capacity.

The proposed starting date for the project is October 1st of 2002, with an expected completion date of September 2006. This proposal falls under the "New Program" award category, with a total budget amount of US$2,225,838 of which, $1,112,811 is federal, and $1,113,027 is IEF match.

This document's main authors from Malawi are Christine Witte, PhD, MPH, IEF Country Director, and Richard Banda, MD, Nsanje District Health Officer. From IEF/HQ in Maryland, John M. Barrows, MPH, Director of Programs, and Gwen O'Donnell, MA, MHS, Child Survival/Vitamin A Coordinator.

[2] Voluntary Counseling and Testing (VCT)/ Mother-to-Child Transmission (MTCT) of Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS). Behavior Change Communication (BCC).

ATTACHMENT 2

MEMORANDUM

TO: MOHP Staff Nsanje District,
FROM: District Health Management Team
DATE: March 2003
SUBJECT: Per Diem

The following describes per diem rates that will apply to activities undertaken by Ministry of Health staff in Nsanje District with resources provided by the International Eye Foundation in conjunction with the District Health Management Team and subject to the program entitled *"Improved Child Survival in Nsanje District, Malawi, Through Community-Based Interventions and Strengthening of the Health Delivery Infrastructure."*

Problem:
The implementation of the program depends on participation of the DHMT and ministry staff in addition to the IEF staff. The implementation activities to undertake include meetings and training for a multitude of activities and tasks. The current Government Per diem rates are significantly higher than the current IEF Per diem rates available to IEF staff. Additionally, the government rates are significantly higher and if implemented could not be supported by the available budget without reducing effectiveness and or the number of activities proposed.

Resolved:
The following revised Per diem rates are presented for acceptance.

1. In situation where a staff (either IEF or DHMT) sleeps outside his/her work place within the district on official project duty, the project will pay **800** Malawi Kwacha only per night (inclusive of food and accommodation) as perdiem. However, if the overnight is in the city (Lilongwe, Blantyre, Mzuzu, Zomba, Mangochi) the project will pay **2,200** Kwacha only per night (inclusive of food and accommodation) as per-diem.
2. In situation where activities are conducted outside the usual place of residence and last all the day, the program will either provide cooked food for lunch or pay **130** Kwacha as lunch allowance.
3. In situation where MOHP staff facilitate a training, an allowance of **300** Kwacha will be provided.
4. When all day trainings are conducted at the Nsanje Boma, participants that are not qualified for per diem will receive **250** Kwacha as a meal allowance.

The described rates are independent of the Government Per diem rates available to government employees. Under no circumstances can IEF provide Per diem in addition to any government allowance provided.

Any and all allowances provided by IEF must be accounted by documentation that includes acceptance of Per diem policy, advance written authorization to participate in activity, signature of receipt of any funding, and attendance record and or proof of participation in activity.

The above policy is subject to review and amendment by the CSMC. The IEF reserves the right to accept based on availability of funding.

Signature Nsanje DHO: _____ Date _____
IEF Director: _____ Date_____

NSANJE DISTRICT CHILD SURVIVAL MANAGEMENT COMMITTEE (CSMC) CHARTER
Nsanje District, Malawi, 2003

Improved Child Survival in Nsanje District, Malawi, Through Community-based Interventions and Strengthening of the Health Delivery Infrastructure.

Joint Nsanje Ministry of Health and Population (MOHP)/International Eye Foundation (IEF) Vision Statement:

The Nsanje District Child Survival Management Committee (CSMC) aims at improving and strengthening the health status of mothers and children with community participation through the provision of an integrated strategy to successfully plan and implement an equitable, accessible, effective, efficient and sustainable child survival project by 2006.

PURPOSE
The purpose of the CSMC, as decided by its members, is to promote a spirit of teamwork among project partners such that child survival is encouraged and enhanced throughout Nsanje District. The role of the group is to verify and monitor project strategies and processes to ensure project sustainability. The CSMC will stimulate the exchange of information between partners and stakeholders to secure project ownership, as well as to avoid the duplication of activities. Formation of the CSMC will enable project partners to share resources and consolidate ideas in project planning and implementation. The CSMC will strengthen the relationship between the MOHP and IEF, thus promoting a joint common vision to achieve project goals.

CSMC RESPONSIBILITIES (Include but are not restricted to):

- Project planning, monitoring and evaluating
- Project supervision
- Providing technical support to the project
- Reviewing technical content of the project
- Monitoring financial issues

CSMC MEMBERS:

- IEF & MOHP Program Coordinators:
  IEF: Project Manager, Project Administrator, MCH, IMCI, HIV/AIDS, Program Managers
  MOHP: Malaria, HIV/AIDS, MCH, IMCI, Reproductive Health Program Managers
- Core DHMT members
- IEF Country Director & CS Project Manager
- Director of Planning from the District Assembly
- CHAM
- Other project partners as warranted on a quarterly basis

CSMC FRAMEWORK

The District Health Officer chairs the CSMC. The Project Manager is the secretary. Regular monthly meetings will take place in the Nsanje Boma, interspersed with periodic meetings away from the Boma. The standard length of CSMC will be one half day, however this can be negotiated according to need.

Members of the CSMC will be held accountable to the joint DHMT/IEF Code of Conduct.

Decisions will be reached by consensus.

A Conflict Resolution Committee subcommittee will be established and responsible for resolving conflicts in the CSMC.

Agreements, detailed in written form, will be signed by the District Health Officer and the Project Manager.

SIGNATURES

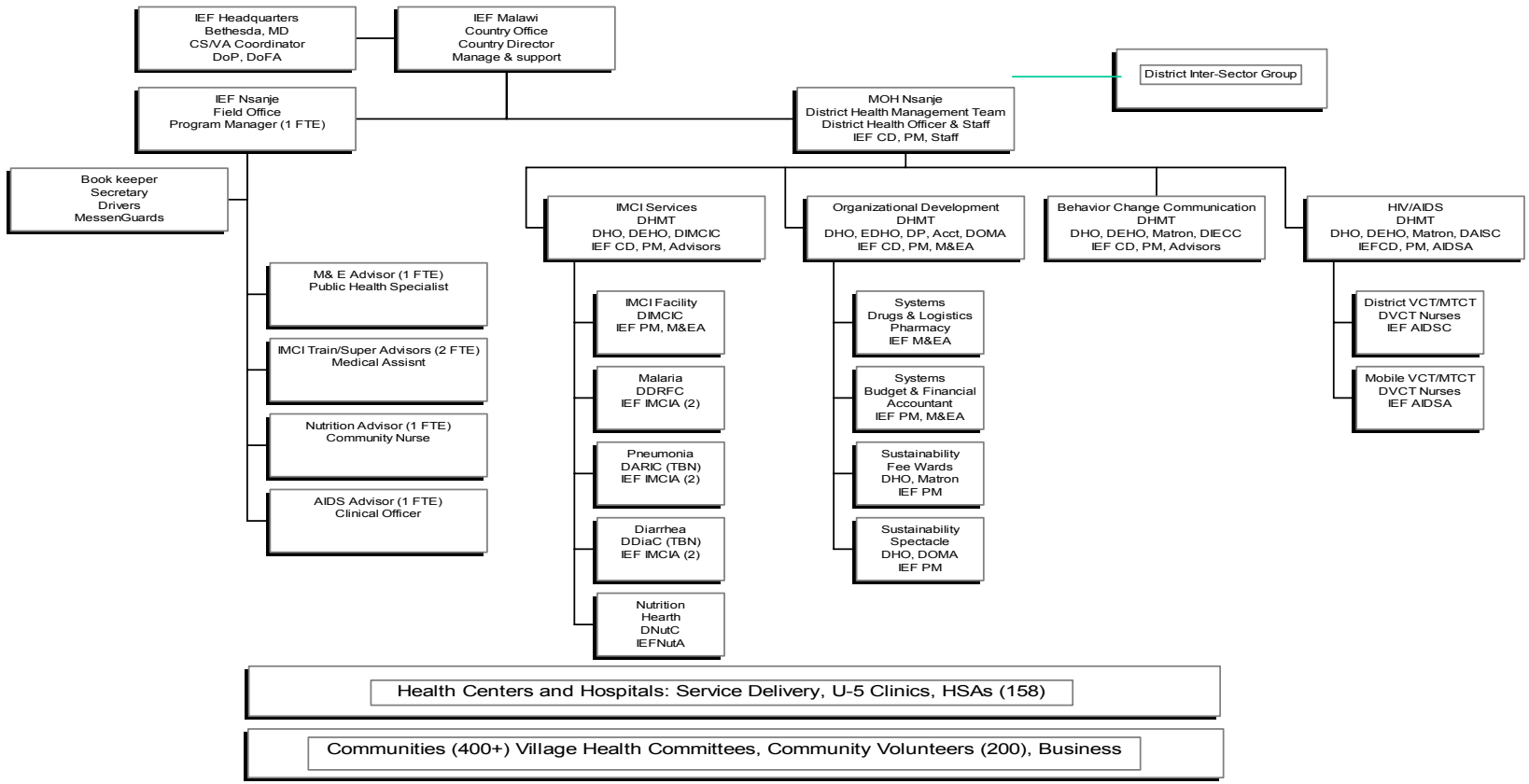
This Charter agreement is undertaken in a spirit of trust, cooperation and partnership, to the benefit of all parties.

We the undersigned have read, understood and agreed to the above points and therein append our signatures on behalf of the CSMC.

Nsanje District Health Management Team	International Eye Foundation
Mr. K. J. Chikonde District Health Officer	Dr. Geoffrey U. Ezepue, Country Director
Date	Date

ANNEX 7: Organizational Chart

IEF/MOH CS Nsanje District
District Health Management Team



ANNEX 8: C.V. Key Persons

Annex 8: C.V.'s Key Persons

CURRICULUM VITAE

EZEPUE, Geoffrey U. **(Dr.)**
Nigerian
P. O. Box 2273, Blantyre, Malawi
Tel: +265-1-624448
nduzo@yahoo.com, ief@malawi.net

I. EDUCATION

1. Postgraduate studies: **West African Post-Graduate Medical College, Lagos, Nigeria.** October 1988 – Oct. 1992
Qualification: Membership, West African College of Physicians, Faculty of Paediatrics (MWACP)

2. University: **University of Nigeria, Enugu Campus, Nigeria.** September 1980 - July 1986
Qualification: Bachelor of Medicine, Bachelor of Surgery (MBBS) Degree
3. Diploma: **PREMESE Africa Development Institute Nairobi, Kenya** May 2001 – April 2002
Qualification: Diploma in Community based Development

II. RELEVANT WORK/PROFESSIONAL EXPERIENCES.

4. Professional skills and/or expertise.

- Child health specialist (specialisation in paediatrics)
- Program/Project management expertise
- Project design, and proposal and report writing experience
- Public Health expertise
- Medical clinical experience
- Child survival and PHC Project experience
- Maternal and Child health and reproductive health including HIV/AIDS experience
- TB treatment and control using DOTS strategy experience
- Monitoring and evaluation expertise
- Nutritional, EPI and KPC surveys experience
- Computer literacy - WP, MS Word, Excel including database, Lotus 123, Epi-info, Outlook express, lotus cc:Mail, lotus notes.

5. Employer 1:
World Vision International, Somalia **April 2000 to January 2003**

Position held: **Health Program Co-ordinator (April 2000 to January 2003)**
Co-ordinate the development of World Vision Somalia's Health and Nutrition programs; Co-ordinate the management, implementation and evaluation of the health programs in Somalia. Represent WVS health program in forums amongst SACB, UN agencies, NGO, Local Authorities and other stakeholders. Co-ordinate needs assessment, planning, development, implementation and evaluation of all health and nutrition projects. Develop standards and protocols for health and nutrition programs, ensuring that project staff and partners understand and adhere to these standards. Design, manage, and supervise the implementation of PHC programs including MCH, EPI, Reproductive health, OPD and TB control program. Design, develop and implement HIV/AIDS program. Had three expatriate health professional and over forty national health staff under my supervision. Designed new PHC project for new area. Started two TB treatment centres. Developed training manuals for both professional health staff and community health volunteers. Conducted nutritional and EPI coverage surveys. Planned and conducted Knowledge, Practice and Coverage (KPC) Surveys for the evaluation of project achievements.

6. Employer 2:
People–to- People Health Foundation, Inc. Project HOPE, Mozambique **Jan. 1999 – March 2000**

Position 1 held: **Program Manager, Child Survival** (March 1999 – March 2000)
Coordinate the planning, direction, organization and management of the Mozambique Child Survival project with the assistance of multidisciplinary groups of technical and administrative personnel. Ensuring compliance with Child Survival grant requirements; Develop annual and quarterly work plans; Provide technical assistance to the MOH and the District Health Management Board; Ensure quality of all training products; Provide training to MOH and Project staff. Training of Community Health Volunteers (CHW); Community Health Volunteers against AIDS, and School Anti-AIDS Clubs. Supervise the implementation of MCH, Reproductive Health, HIV/AIDS and EPI programs. Ensure that resources required for

implementation of work plans are available in timely manner. Oversee the preparation of monthly financial reports and ensure accounting of resources meets USAID regulations. Coordinate and arrange external technical assistance according to needs in the annual plan. Supervise Project HOPE field staff and conduct annual performance reviews with Program Director, Mozambique. Prepare quarterly and annual reports for the Program Director, HOPE center, and USAID; Assist HOPE headquarters staff and Program Director in preparation of new proposals.

Position 2 held: Consultant Medical Advisor (January – February 1999)

This was a short-term consultancy provided to the management of Project HOPE headquarters in USA. The quality of the report resulted in my subsequent employment as the Project Manager. Some of the objectives of the services were; Become acquainted with and assess the management and technical needs of the Mozambique Child Survival Program. Develop recommendations for strengthening and developing the program. Review staff skills with the Project Director and make recommendations for needs-based training; Review training needs of project volunteers at village level and develop recommendations for their schedule; Assess current manpower situation and develop recommendation to address staffing needs. Recommend a management framework for the project, with emphasis on regular data-collection, training needs, reporting, and implementation.

7. Employer 3:
World Vision International, Angola **Sept. 1995 – January 1999**

Position 1 held: Health Program Manager (October 1996 – January 1999)

Manage all World Vision Health Programs in Angola, including program design and evaluation, ongoing co-ordination with government officials, nutritional and health surveillance, recruitment of staff and implementation of programs to improve significantly the health of the target population. Training of technical staff and local assistants. Appraisal of staff. Liase with government offices, international community, UN agencies and other relevant bodies, to present and discuss strategies and issues regarding World Vision health programs. Conduct needs' assessments, surveys, and research related to health and nutrition programming and provide guidance to the Country Director. Developed links with funding agencies. Establish and maintain an evaluation system to assess the impact of World Vision health projects in communities. Prepare, monitor and evaluate budgeted and actual expenditures with Finance Manager. Prepare and submit technical reports, project proposals and monthly reports timely. Manage Primary Health Care (PHC) for rural communities including Reproductive health, HIV/AIDS, MCH, OPD and mobile outreach health activities. Designed a Child Survival Project. Organised training for CHWs and Community Health Committees. Was a member of senior management board (Strategic Management Team). Acted for the Country Director and Operational Director at various times when they were out of the country.

Position 2 held: Demobilization Health Coordinator (April 1996 - October 1996)

Design and implement Health and Nutritional interventions involving supervision, coordination and control of program with local health staff and the community. Identify health and nutritional needs and take adequate steps according to available resources. Coordination of Health activities in the Quartering area with more than eighty Health staff. Supervision of both local and international health staff. Training of health personnel. Ensured that all ex-soldiers received a medical examination. Keep adequate control of all assets, material and equipment being used and ensure replenishment when necessary. Establish and manage the Health Information System, including data collection, analysis, forwarding and disseminating all relevant data and information. Writing of weekly reports to the quartering program National Health Coordinator. Writing of weekly and monthly reports to World Vision Headquarters and UNICEF. Control of materials and equipment in the quartering area. Conducting of nutritional surveys among the Ex-soldiers and their families. Ensure that technical information pertinent to the project are obtained, disseminated to staff and stored as required. Represented WV in meetings with the UNITA (rebel group) and the United Nations.

Position 3 held: Quartering Program Team Leader (April 1996 - October 1996)

Co-ordinate and supervise all sectoral activity of World Vision humanitarian assistance program in the quartering area. Supervised all local and 5 international staff. Management of resources in the quartering area. Official Representative in the quartering process. Write weekly and monthly reports of activities to World Vision Luanda office.

Position 4 held: Health Officer (September 1995- March 1996)

Assist the Senior Health Officer in implementing the health and nutrition program in the assigned geographical area, including planning, research, evaluation, training, documentation, liasing and reporting. Assist in the planning and development of health/nutrition and health - related projects. Assist in developing standards and protocols for health and nutrition program, ensuring the project staff and partners understand and adhere to these standards. Assist in recruitment and training of national staff. Assist in surveys and research studies of prevalent diseases. Assist in establishing and managing the Health Information System including data collection, analyses, and information dissemination. Assist in the development, establishment and implementation of an evaluation system. Assist in providing technical support to non-health programs. Setting of health posts and supervision of mobile health and vaccination teams. Carrying out nutritional surveys and the analysis and reporting of such surveys.

8. Employer 4
Directorate of Technical Aid Corps (TAC), Ministry of Foreign Affairs, Abuja Nigeria April 1993 - March 1995

Location of assignment: Hospital Provincial de Gaza, Xai-Xai, Mozambique
Position held: Volunteer Medical Officer (April 1993 - March 1995)
Worked in a paediatric Department of a Provincial Hospital. Providing routine care of paediatric inpatient. Care of malnourished patients, treatment of diarrhoea diseases and acute respiratory infections, health education, nutritional education.

9. Employer 5:
Department of Paediatrics, University of Nigeria Teaching Hospital, Enugu Nigeria Oct. 1988 – Sept. 1995
Position 1 held: Senior Registrar (October 1992 - September 1995)
Supervision of Junior doctors, teaching of students and young doctors, running of special clinics like sickle cell clinic, epilepsy clinic, renal clinic, new-born clinic, oncology clinic and infant welfare clinic and immunisations.
Position 2 held: Registrar (October 1989 - October 1992)
Community paediatrics, running of out-patient general clinic, care of in-patients, nutritional education, care of malnourished children, primary health care, and health education.
Position 3 held: Senior House Officer (October 1988 - October 1989)
Care of inpatient paediatric patients, performance of simple laboratory analyses like urinalysis, haemoglobin estimation, film for malaria parasites, treatment of tropical diseases, tuberculosis, acute respiratory infections, acute diarrhoea diseases, venepuncture and other medical care.

11. Research/Evaluation experiences
- Member of Federal Government of Nigeria Survey Group on Epidemiology of Non-communicable diseases in Nigeria (1990)
- A Member of Nestle Nigeria (PLC) Trial Group of a new infant weaning food now called Nestogen (1991)
- Co-author "Pattern of Childhood Tuberculosis Infection in hospitalized Patients"- a joint paper presented during the 24 Annual Scientific Conference of Pediatric Association of Nigeria in Enugu, Nigeria, Jan 26 - 30 1993
- Pattern of feeding of infants, 0-4 months, in Enugu, Nigeria. Dissertation of award of Fellowship of West African College of Physicians, Faculty of Paediatrics. 1997
- Conducted ten different nutritional surveys
- Conducted final evaluation of Child Survival Program in Angola and KPC studies, September, 1998
- Participated in mid-term evaluation of Child Survival Program of World Vision Zambia, October, 1998
- Conducted final project evaluation of PHC Program in Somalia and KPC studies, January, 2001

III. Languages spoken

12. Mother tongue: Igbo
13. Other languages: English (Very fluent both written and verbal) (Level 3)
Portuguese (fluent in both verbal and written) (level 3)
French (very basic in speaking) (level 1)

IV. OTHER RELAVANT EXPERIENCES

14. Professional/Educational short courses
- Research methodology course organized by West African Postgraduate Medical College (August 1995)
- Emergency Pediatrics Intensive course (Sept 1995)
- Zenger Miller Management training course (Nov 1997)
- International HIV/AIDS Practitioners workshop Uganda, (February 2001)
- Performance Management training Course (Oct 2001)
- International HIV/AIDS Capacity Building Workshop Johannesburg, (April 2002)
- One day workshop on recent developments on Malaria management by Prof Gilles, Nairobi, (July 2002)
- Project monitoring and Evaluation training, Nairobi (July 2002)

CURRICULUM VITAE

Tembo, Edna
Malawian
P. O. Box 2273 Blantyre, Malawi
ief@malawi.net

A. EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS

1. University Education: MZUZU UNIVERSITY November 1998 to December 2000:
Qualification: Bachelor of Science (Health Science Education).

2. Nursing Education:
Msambya Nursing and Midwifery Training School, May 1994 to November 1995
Qualification: State Registered General Nurse-Midwife.

Phalombe Nursing School 1988 to 1991
Qualification: Enrolled Nurse/Midwife certificate

B. WORK EXPERIENCE

3. Employer 1: HOLY FAMILY NURSING SCHOOL November 1997 TO DATE:
Teaching Experience

Position 1: SENIOR TUTOR August 2002 to date
Responsibilities
- Assisting in administrative and managerial work.
- Planning students training program and assigning teaching staff.
- Drawing and controlling school budget.
- Involved in pre-service and in-service training programs
- Involved in staff and students counseling and appraisal
- Supervising staff and students in clinical area
- Coordinator in Community Health Nursing and Medical-Surgical Nursing program
- Conducting community health needs assessment and school health program

Position 2 and 3: PRINCIPAL TUTOR August 2001 to August 2002 and Acting Principal tutor 1997 to 1998
Responsibilities:
- Planning, managing and controlling school budget
- Planning and carrying out training programs
- Report writing and record keeping
- Conducting Pre-service and in-service training
- Advising, supervising and controlling staff and students
- Monitoring staff and students performances
- Involved in school/hospital management decision making
- Coordinating training program

Hospital experience

C. Employer 2. HOLY FAMILY HOSPITAL – PHALOMBE 1991-1996
NURSE IN-CHARGE

- Supervising staff and students
- Conducting In-service training
- Planning, controlling and monitoring resources i.e. human, material
- Monthly report writing
- Advising staff and students
- Allocation, delegating and staff appraisal
- Maintaining ward cleanliness and promoting quality of care

D. OTHER RELEVANT TRAINING AND COURSES

.

- 2002: Certificate in IMCI Case Management, and IMCI Facilitator, Blantyre.
- 2002: Certificate in Baby Friendly Hospital Initiative, PMTCT, Mulanje.
- 2002: Certificate in Advocacy, Lilongwe.
- 2001: Certificate in Life Saving Skills- Safe Motherhood, Blantyre.
- 2001: Certificate in Infection Prevention (TOT), Lilongwe.
- 1998: Certificate in Teaching Methodology course, MIE, Domasi.
- 1997: Certificate in Family Planning (Service Provider),Mulanje.
- 1996: Prescribers course in Machinga district
- 1996: Certificate in STD Syndromic Management

E. OTHER EXPERIENCES

- 2002; Facilitator in IMCI Case Management, Blantyre and Lilongwe.
- 2002 : Researcher/supervisor on KAP in Cholera, Phalombe
- 2002 : Infection Prevention and Family Planning refresher courses, Phalombe
- 1997: Child Survival Research, enumerator, Thyolo and Mulanje.
- 1997 : Tuberculosis workshop Phalombe /Mulanje

ANNEX 9: Training Work Plan

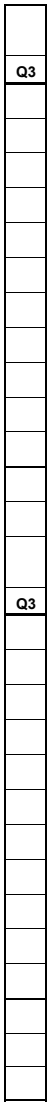
		Subject	Target Audience	Type Training	Respon. Team	TA required?	Content designed?	Estimate Days	Estimate Trainees	Estimated Time 2003/ 2006														
										Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
IR.1		**DISTRICT ORGANIZATIONAL EFFECTIVENESS AND MANAGEMENT SUPPORT SYSTEMS**																						
1.2	M&E	KPC 2000+	CSMC, IEF	Orientation Workshop	IEF	no	yes	4	15	x														
1.2	Plan	DIP orientation & planning workshop	CSMC	Planning Workshop	IEF	no	yes	4	22		x	x												
1.3	OC	Organization and sustainability assessment	CSMC	Planning Workshop	IEF	no	yes	3	15						x									
1.4	S&M	Zone team supervision & monitoring practices	CSMC & Zone	Skills Workshop	IEF	no	no	6	21				x											
1.5	S&M	LQAS monitoring & evaluation system	CSMC& Zones	Skills Workshop	IEF	?	no	5	21					x	x									
1.6	S&M	Performance improvement management practices	CSMC & Zones	Skills Worshop	IEF & TA	Nat QA Sect	yes	5	21				x	x										
1.7	Mgt	Pharmacy, inventory system & software	CSMC	Skills Workshop	IEF & MIM	MIM	yes	3	3						x									
1.8	Mgt	Budget & financial system & software	CSMC	Skills Workshop	IEF & MIM	MIM	yes	3	3						x									
1.9	Mgt	Annual District Forum review workshop	CSMC & Zones Facility Teams	Management Meeting	IEF & CSMC	no	no	2	40				x				x					x		
1.10	Eval	Participatory evaluation	CSMC & Zones	Orientation Meeting	IEF	no	yes	2	22							x	x							x
1.11	Plan	Business planning Cost Ward & Spectacle shop	CSMC	Planning Workshop	IEF	no	yes	2	22						x	x						x	x	
1.12	IMCI	District Technical Committee orientation HH/C IMCI	DTC	Planing Meeting	IEF & CSMC	no	yes	1	20				x											
1.13	IMCI	District Assembly orientation HH/C IMCI	DA	Orientation Workshop	IEF & CSMC	no	yes	1	30				x											
								41	255															

		Subject	Target Audience	Type Training	Respon. Team	TA required?	Content designed?	Estimate Days	Estimate Trainees	Estimated Time 2003/ 2006														
										Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
IR. 2		**HEALTH PROVIDER SKILLS IN PREVENTION & MANAGEMENT CHILDHOOD ILLNESS IMPROVED**																						
2.1	IMCI	Training of Trainers IMCI	CSMC, IEF	Skills Workshop	IEF CSMC	Nat. IMCI Sect.	yes	11	6				x											
2.2	EPI, VA, Nut, DCM, ARI, Mal. W&S	Health facility providers	CSMC, IEF	Skills Workshop	IEF CSMC	no	yes	11	28				x	x							x			
2.3		Health facility support staff	CSMC, IEF	Skills Workshop	IEF CSMC	no	yes	5	15					x	x							x		
2.4		Health Surveillance Assistants	CSMC, IEF	Skills Workshop	IEF CSMC	no	no	10	140				x	x	x						x			
2.5		Community Health Volunteers	CSMC, IEF	Skills Workshop	IEF CSMC	no	no	10	250						x	x						x		
								47	439															

		Subject	Target Audience	Type Training	Respon. Team	TA required?	Content designed?	Estimate Days	Estimate Trainees	Estimated Time 2003/ 2006														
										Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
IR.3		**AVAILABILITY & ACCESSABILITY TO QUALITY PREVENTATIVE & CURATIVE SERVICES HEALTH SERVICES INCREASED**																						
3.1	Mal	Training of Trainers Malaria ITN & IPT	CSMC & IEF	Skills Workshop	IEF CSMC	PCI	yes	5	6					x										
3.2	Mal	Malaria Facility ITN Nurse training	Nurses	Skills Workshop	IEF CSMC	yes	yes	3	22						x								x	
3.3	DRF	DRF assessment & review	CSMC IEF	Planning Workshop	IEF CSMC	no	no	2	6						x									
3.4	DRF	DRF pilot depot training	HSA & CHV	Skills Workshop	IEF CSMC	no	no	4	40						x	x								
3.5	Nut	Training of Trainers PD Hearth	CSMC & IEF	Skills Workshop	IEF CSMC	SCF	yes	10	6						x									
3.6	Nut	Supervisor training PD Hearth	Nurses	Skills Workshop	IEF CSMC	no	yes	5	5							x								
3.7	Nut	Volunteer training PD Hearth	CHVs	Skills Workshop	IEF CSMC	no	yes	5	20								x						x	
3.8	HIV AIDS	Training of Trainers PMTCT & VCT	CSMC & IEF	Skills Workshop	IEF CSMC	Macro	yes	5	5					x										
3.9	HIV AIDS	Nurse training PMTCT counseling	Nurses	Skills Workshop	IEF CSMC	no	yes	5	35						x	x						x		
3.10	HIV AIDS	Nurse Training VCT	Nurses	Skills Workshop	IEF CSMC	no	yes	5	5							x							x	
								49	150															

		Subject	Target Audience	Type Training	Respon. Team	TA required?	Content designed?	Estimate Days	Estimate Trainees	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
IR.4		**COMMUNITY PARTICIPATION, OWNERSHIP, AND DEMAND FOR HEALTH SERVICES INCREASED**																						
	Plan	Review community mobilizaion strategies	CSMC & IEF	Planning Meeting	IEF CSMC	no	no	2	22				x	x										
	IMCI	Village Health Committee orientation, mobilization	VHCs	Day Meeting	HSAS	no	no	3	3,000				x											
	M&E	Area Health meetings	H/facilities, HSA, VHCs	Day Meeting	H/facilities & HSAs	no	no	1	180						x				x					
	IMCI	Women's Group training	Community	Day Meeting	CHVs	no	no	3	250						x					x				
	BCC	Review Health Communication strategies	CSMC & IEF	Planning Meeting	IEF CSMC	yes	no	2	22				x	x										
	BCC	Adult learning & facilitation skills workshop	CSMC & IEF	Skills Workshop	IEF CSMC	yes	no	5	22						x									
	BCC	Training of Trainers BEHAVE framework	CSMC & IEF	Skills Workshop	IEF CSMC	yes	yes	3	22							x								
	BCC	Zone trainers Behavior Change Intervention	Zone	Skills Workshop	IEF CSMC	no	no	3	60							x								
	BCC	HSAs Behavior Change Intervention	HSAs	Skills Workshop	IEF CSMC	no	no	4	185								x	x						
	BCC	CHVs Behavior Change Intervention	CHVs	Skills Workshop	IEF CSMC	no	no	4	500									x	x					
								30	4,263															
								167	5,107															

Q3
x
x
Q3


Q3
Q3