

C-IMCI HANDBOOK



Community-Integrated Management of Childhood Illness

Prepared By Alfonso Rosales, MD, MPH-TM

In collaboration with
Kristin Weinbauer, MPH, RN



Catholic Relief Services
209 West Fayette
Baltimore, Maryland 21201-3443
USA

Copyright 2003

Second English Edition: © March 2003

(Second Edition changes include addition of key behaviors to the diarrhea sections)

Readers may copy, translate or adapt this manual for non-profit use, provided copies, translations or adaptations are distributed free or at cost. Please give appropriate citation to the authors and Catholic Relief Services.

Any organization or person wishing to copy or adapt any part or all of this manual for profit must first obtain permission from Catholic Relief Services.

Catholic Relief Services would appreciate receiving a copy of any materials in which text, graphics or photos from this manual have been used. Please send to Alfonso Rosales and Kristin Weinbauer (209 West Fayette, Baltimore MD 21201-3443 USA). Suggestions for improving this book are also welcomed by letter or email to kweinbau@catholicrelief.org or arosales@catholicrelief.org.

Information/pictures have been inserted into this manual from "Where women have no doctor: A health guide for women". The publishers contact information is: Hesperian Foundation-1919 Addison St-Suite 304- Berkeley-CA 94704-USA
1-888-729-1796 (510)-854-1447 (510)-845-9141(fax)

(March 2003: Edition 2)

Front Cover Photo Credit: Eileen Emerson

Acknowledgments

Many friends and colleagues contributed their time, energy, and wisdom in the development of this handbook, for which I am most grateful. CRS colleagues who provided in one way or another strong contributions are Milagros Lasquety from CRS Philippines, Dr. Sonia de Mena from CRS El Salvador, Dr. Ivan de Leon from CRS Guatemala, and Dr. Marylena Arita from CRS Honduras. Participants in the CRS/PQSD 2002 Annual Global Health Conference provided an incredibly useful review on the contents of the different topics included in this handbook, my thanks to all of them. I would also like to thank colleagues from other agencies that in more than one way provoked the development of this work; specially among them are Dr. Larry Casazza Chair of the C-IMCI working group of The CORE Group, Dr. Rene Salgado of John Snow International, Kate Jones and Dr. Al Bartlett of the United States for International Development (USAID), Dr. Vincent Orinda of UNICEF, Dr. Yehuda Benguigui, Chris Drasbeck and Dr. Maria Dolores Perez-Rosales of the Pan American Health Organization.

The second edition of this manual includes the addition of key behavior practices in the prevention of diarrhea. This was jointly developed with The Environmental Health Project, funded by USAID, Bureau for Global Health, Office of Health, Infectious Diseases, and Nutrition

Without the support provided by DCHA/FFP, USAID, under the terms of Award Number FAO-A-00-98-00046-00, this document would not had been possible. The authors would like also to acknowledge the inclusion of documents throughout this handbook produced and published by the Hesperian Foundation and the World Health Organization. Finally, the views expressed in this publication are those of the authors and do not necessarily represent the views of Catholic Relief Services or the U.S Agency for International Development.

Alfonso Rosales, MD, MPH-TM

About CRS

Catholic Relief Services was founded in 1943 to assist the poor and disadvantaged outside of the United States. CRS works to alleviate suffering, promote human development, foster charity and justice and promote peace. CRS assists the poor solely on the basis of need, not creed, race or nationality and currently operates in 80 countries worldwide.

FOREWORD

During the past ten years, childhood deaths worldwide have decreased by 15 percent. This is mainly due to improved medical treatment combined with increasing access to health care. However, this reduction has not been reduced evenly in all areas, and in some countries child mortality has even increased. Altogether, more than 10 million children under five years of age die each year in developing countries. In trying to respond to this problem, WHO and UNICEF developed in the early 90's a new approach to deal with child health: the Integrated Management of Childhood Illnesses (**IMCI**). This methodology has three components:

1. Improvement in the case-management skills of health staff through the provision of locally adapted guidelines on IMCI and through activities to promote their use
2. Improvements in the health system required for effective management of childhood illness
3. Improvement in family and community practices.

In January of 2001, CORE held a workshop in Baltimore City, Maryland, USA for more than 100 members of the international PVO community. Participants developed a framework to operationalize the third component of IMCI: A Framework for Household and Community IMCI.

The framework has three elements sustained by a multisectorial platform:

- Element #1: Improving partnerships between health facilities and communities they serve
- Element #2: Increasing appropriate, accessible care and information from community-based providers
- Element #3: Integrated promotion of key family practices critical for child health and nutrition.

CRS has looked at the recommendations of WHO, the meeting of PVOs in Baltimore, research-based literature, and personal experience in the field to comprise this guide for CRS field workers. This Facilitator's Guide is intended to help plan for the training of community-based health providers who diagnose and provide treatment in any form to children outside the formal health system. It is a guide designed to operationalize Element 2 of C-IMCI, which is specific for improving the technical abilities of community health workers in managing child health. The manual is divided

into chapters consisting of clinical guidelines designed for the management of sick children aged 60 days to 5 years old (*Note: The guide recommends that sick children aged 1 to 59 days old should be referred immediately to the nearest health facility*).

The table of contents at the beginning of the book lists the diseases and preventive health tasks. The methodology used in the implementation of these clinical guidelines follows a similar approach for each topic, 'assessment-classification-identification'. The learning methodology recommended in this manual follows an educational approach based on 'reflection-definition-recognition-application' for conditions known to be the most prevalent health problems in the region.

Each chapter is specific to a certain health concern. Chapter 8 has two versions: high malarial region and low malarial region. If you have either a high or low transmission of malaria in your region, choose the corresponding section. If malaria is ruled out, then the Community Health Worker (CHW) must continue assessment of fever, which is covered in Chapter 9. If malaria is not prevalent in your region, please disregard Chapter 8.

The CRS Facilitator's Guide is designed for a short intensive training preferably near community/municipal health centers. The length of training will be dependent on the amount of material taken from this guide to be used in your region and it could range from a few days to a week. At the end of the training, the community health worker is expected to assess and classify health problems and recommend appropriate actions.

Rationale for IMCI Implementation

The Integrated Management of Childhood Illness (IMCI) is a strategy to address the most common causes of illness (morbidity) and mortality (deaths) among children under five which was developed and initiated by the World Health Organization (WHO) in collaboration with UNICEF in 1995.

- It addresses major child health problems, which are infectious in nature, often accompanied by or with underlying nutritional problems.
- It integrates case management of the most common causes of childhood deaths. Based on the prevalence of diseases in your region, diseases can be chosen from this booklet and assembled for case management.
- It promotes preventive interventions such as Vitamin A supplementation, breastfeeding, and nutritional counseling.

It seeks not to focus the majority of available resources on one health issue, rather it looks at a child holistically with the possibility of having multiple health problems in addition to preventive needs.

TABLE OF CONTENTS

Forward / Introduction

Acronyms & Abbreviations

Section 1: ASSESS / CLASSIFY / WHAT TO DO

- Ch. 1 Facilitator's Guide to C-IMCI Manual
- Ch. 2 The Integrated Case Management Process / Rationale
- Ch. 3 Guidelines for Community Health Workers (CHWs) / Recording Form
- Ch. 4 Communicating With and Counseling Mothers & Caregivers
- Ch. 5 General Danger Signs
- Ch. 6 Cough or Difficult Breathing
- Ch. 7 Diarrhea
- Ch. 8 (Option 1) Malaria in a High Transmission Region
- Ch. 8 (Option 2) Malaria in a Low Transmission Region
- Ch. 9 Fever with Assumption of No Malaria
- Ch. 10 Ear Infections
- Ch. 11 Malnutrition
- Ch. 12 Breastfeeding
- Ch. 13 Immunization Status
- Ch. 14 Vitamin A Supplementation

Section 2: HOME CARE TREATMENT / FOLLOW-UP GUIDELINES

- Ch. 15 Diarrhoeal Treatment
- Ch. 16 Malaria Treatment
- Ch. 17 Ear Infection Treatment
- Ch. 18 Feeding Recommendations
- Ch. 19 Breastfeeding Recommendations
- Ch. 20 Follow-Up Recommendations

Annexes:

A: Prioritise Problems: If Child Has More Than One Problem

B: How to Teach the Mother to Give Oral Drugs

C: Medication Dosage Information (General; Not Adapted to Country)

Bibliography

PART I: CONTENTS

Page	Section 1: ASSESS/CLASSIFY/WHAT TO DO
6	Ch. 1 Facilitator's Guide to C-IMCI Manual
11	Ch. 2 The Integrated Case Management Process / Rationale
12	Ch. 3 Guidelines for Community Health Workers (CHWs) / Recording Form
23	Ch. 4 Communicating With and Counselling Mothers & Caregivers
28	Ch. 5 General Danger Signs
34	Ch. 6 Cough or Difficult Breathing
41	Ch. 7 Diarrhea
49	Ch. 8 (Option 1) Malaria in a High Transmission Region
56	Ch. 8 (Option 2) Malaria in a Low Transmission Region
62	Ch. 9 Fever with Assumption of No Malaria
69	Ch. 10 Ear Infections
77	Ch. 11 Malnutrition
85	Ch. 12 Breastfeeding
95	Ch. 13 Immunization Status
102	Ch. 14 Vitamin A Supplementation

ACRONYMS / ABBREVIATIONS

BCG	Bacille Calmette-Guerin vaccine used for the prevention of tuberculosis
cc	Cubic centimeter (equal to a milliliter or mL); commonly used to measure medication in liquid form
CHW	Community Health Worker
C-IMCI	Community (Based) Integrated Management of Childhood Illnesses
CRS	Catholic Relief Services, a PVO
DPT	Combination immunization that protects against diphtheria, pertussis and tetanus
HBV	Vaccine against Hepatitis B
g	Gram (equal to 1000 milligrams); commonly used to measure medication dosage
kg.	Kilogram; commonly used to measure weight of a child
ORS	Oral Rehydration Solution
mg	Milligram
mL	Milliliter (equal to a cc or cubic centimeter); commonly used to measure liquid quantity
MOH	Ministry of Health
NGO	Non-Governmental Organization
L	Liter (equal to 1000 milliliters); commonly used to measure liquid quantity.
PEM	Protein-Energy Malnutrition
PVO	Private Voluntary Organization
Tsp	Teaspoon = 5 milliliters
Tbsp	Tablespoon = 15 milliliters
WHO	World Health Organization
UNICEF	United Nations International Children's Emergency Fund

CHAPTER 1: FACILITATOR CHAPTER: GUIDE FOR C-IMCI MANUAL

OBJECTIVES

At the end of the session, the facilitator will be able to

- Recognize the general outline and content of each chapter
- Clarify the purpose of the methods used to teach the participants
- Understand the outline and flow of each chapter
- Locate facilitator instructions throughout the manual
- Understand the need to adapt this manual to the country, region, and community

CONTENTS

- General outline of chapters
- Guidelines for facilitators

The C-IMCI handbook contains the following:

1. SECTION 1 OF MANUAL: ASSESS & CLASSIFY

This section consists of 13 chapters. The first three chapters provide a rational overview of the Integrated Management of Childhood Illness strategy and its process; in addition there is a general explanation on how to use the recording form, and how to communicate with a child caretaker. From Chapters 5 to 14, IMCI specific disease-conditions, starting with “general danger signs”, are explored. The section on malaria has been divided, according to magnitude of prevalence, into two options: malaria in High Transmission Regions, and malaria in Low Transmission Regions. Chapter 11 to 14 address activities related to prevention, such as immunization and Vitamin A supplementation.

2. SECTION 2 OF MANUAL: HOME CARE TREATMENT & FOLLOW-UP GUIDELINES

The second portion of this manual is the ‘Home Care Treatment and Follow-Up Guidelines’. This section specifically addresses treatment and procedures related to each of the diseases/conditions included in section 1 of this manual. Due to the generic approach of this manual, treatments and procedures are expected to follow national guidelines, therefore this section only constitutes a guide or a footprint to follow and replace with local procedures and treatments. In light of programmatic effectiveness and sustainability, it is highly recommended that the guidelines taught to the CHW’s follow the MOH’s recommendations.

The outline for the 1st half of the manual is:

- I. Reflection
- II. Definition
- III. How to Recognize
- IV. Skill Development
- V. Evaluation of Disease or Prevention Activity:
Management of Recording Form
- VI. After Evaluation: Define What To Do And How To Do A Referral
- VII. Refer the Child

I. REFLECTION

Following adult techniques of education, the first section of each chapter asks the community health workers (CHW’s) to reflect or look back on their own experiences. The purpose is to allow the participant to have an account of his/her own knowledge/experience on the subject discussed, and subsequently builds upon that knowledge through the application of the rest of the educational process. Each chapter has a series of questions related to the topic (disease or prevention technique) that participants are encouraged to reflect upon on an individual basis. After time has been given for each CHW to think individually on the question, they can share their answers with the group.

II. DEFINITION

The second step in the training approach is the definition section. This section simply defines the disease or the prevention activity. Its main purpose is to give the facilitator and CHW some information on the topic. In some chapters, information is given regarding the disease process or the benefits of the prevention activity. This is meant to supplement the basic teachings of the manual. Every disease/condition included in this handbook has been defined according to up-to-date literature as well as World Health Organization guidance.

III. HOW TO RECOGNIZE...

This section of the chapter explains specifically 'how to recognize' the disease or whether a prevention activity has been missed. The section's intent is to provide space to the participant to start putting into practice the knowledge discovered (through the reflection process) and newly acquired (through the process of definition). This section starts with a summary of the symptoms in a box. The box below illustrates what this looks like. After the box, each sign of the disease is explained in detail. This section is enough to determine whether or not the child has a symptom.

CHECK FOR DIARRHEA

ASK: Does child have diarrhea? If YES, check for diarrhea

IV. SKILL DEVELOPMENT

This section supports the learning process by encouraging the participant to practice old and recently acquired knowledge, and thus improved skill development. Videos, specially designed to this purpose, are shown to the participants. Each video will show specifically the disease/condition related to the topic being discussed. The videos are interactive and actively promote the viewers participation through sections of questions and answers.

V. EVALUATION OF DISEASE AND MANAGEMENT OF RECORDING FORM

Participants will pair up with each other and visit homes with children under two years of age. The CHW will learn to look for the signs and symptoms discussed in the chapter and utilize the health recording form for that disease or prevention activity. The majority of the children in the community will be healthy. This gives the CHW the chance to assess healthy children. This part of the training process builds on the premise that CHWs should be able to identify and recognize those children that are in need of urgent referral. In other words, to recognize the deviant child from the norm. Thus, the learning process in this step tries to build in the participant's conscience the perception of a normal child, and compare this child with the one shown in the videos. In addition, by visiting homes, the CHW will get experience in going to people's homes. They will be able to practice the communication techniques presented in Chapter 4.

VI. AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

After the CHW has evaluated the child, there are simple instructions on what to do. If the child is to receive home care, the CHW must go to the second portion of the manual, 'Home Treatment and Follow-Up' guidelines. Other options are urgent referral, non-urgent referral, and no problem.

VII. REFER THE CHILD

This is the last section of each chapter, and it describes step by step the process by which a sick child is referred to a higher level of health care. The process is iterative in each chapter, notwithstanding some differences in sections 3 and 4 for the specific disease or prevention technique.

The outline for the 2nd half of the manual is:

- I. Summary Table
- II. Outline of Chapter
- III. Summaries of 'WHAT TO DO'
- IV. Home Care Treatments
- V. Follow-Up Visit Recommendations

I. SUMMARY TABLE

Each chapter of "Part 2 of manual" starts with a table summarizing the classifications and their treatments. The purpose of the summary table is to put everything that is being described on one page for that disease. This allows the CHW to get the 'big picture' or complete perspective of the classifications and treatments

II. OUTLINE OF CHAPTER

This is directly after the summary. This allows for the CHW to easily find what they are looking for in the chapter.

III. SUMMARIES OF 'WHAT TO DO'

Each classification of a disease has a summary of 'what to do' after you've evaluated the child. While there is a summary at the end of each chapter in the first section of the manual, the first section doesn't incorporate follow-up visits and home care procedures. This puts all the information in one place.

IV. HOME CARE TREATMENTS / PROCEDURES

This section gives step-by-step instructions on how to give home care for children who are not sick enough to be referred to a health center. These may be different where you are located. It is important that the facilitator uses the MOH recommendations and adapts it locally to the community.

V. FOLLOW-UP RECOMMENDATIONS

This section follows the procedures for home care. When a CHW has given instructions to the mother for home care, the CHW should return to the home for a 'follow-up' visit to

ensure that the procedure or treatment is properly being done. Recommendations on when to return for a certain disease are given in this section of the chapter. Chapter 20 gives a summary of the ‘follow-up’ visit recommendations for all the diseases.

ANNEXES TO THE MANUAL

There are currently 3 annexes at the end of the manual. Your country may put more annexes in place for your country. The CHW can use these annexes for references.

Currently, the three annexes give guidance on:

- Annex A: Prioritizing problems when a child has more than one problem: what to do
- Annex B: How to teach a mother to give oral drugs at home
- Annex C: Medication Dosage Information
(general: needs to be adapted to country specifics)

Facilitator Guidelines

Throughout this manual, you’ll be able to see specific facilitator instructions by looking for a box titled, “Facilitator’s Instructions”. Inside this box, another box is located with the instructions. There is a box on this page to illustrate what you will see throughout the manual. The purpose of this box is not to read it aloud to the Community Health Workers (CHW). It is simply to guide you, the facilitator, within that chapter.

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

Adaptation of Manual

As you go through each chapter, it should be adapted to your country or Ministry of Health (MOH) recommendations and policies. In addition to these changes made in-country, you will find that you need to adapt this manual to your region or community. An example is the Malnutrition Chapter. Foods that are local to that community and accessible should be put into the food recommendations. If you as the facilitator or CHW feel that a certain local word describes something better, it is encouraged to use the local word. An example is the word ‘diarrhea’, a lot of communities have different common words used to describe this.

When teaching the CHW’s, it may become apparent to you that some signs of disease are too difficult for the CHW to learn and to apply in the field. It may be necessary to eliminate certain signs or symptoms because they are too complex for the CHW. Be sure to discuss this with other peers working with IMCI to decide which signs, if any should be eliminated.

The goal of IMCI is to teach the CHW to assess and classify a disease or lack of prevention service. After this is accomplished, the CHW will either refer the child to a health clinic or teach the mother how to give home treatment. If the CHW teaches the mother, a follow-up visit will be made to ensure that the mother learned the teachings.

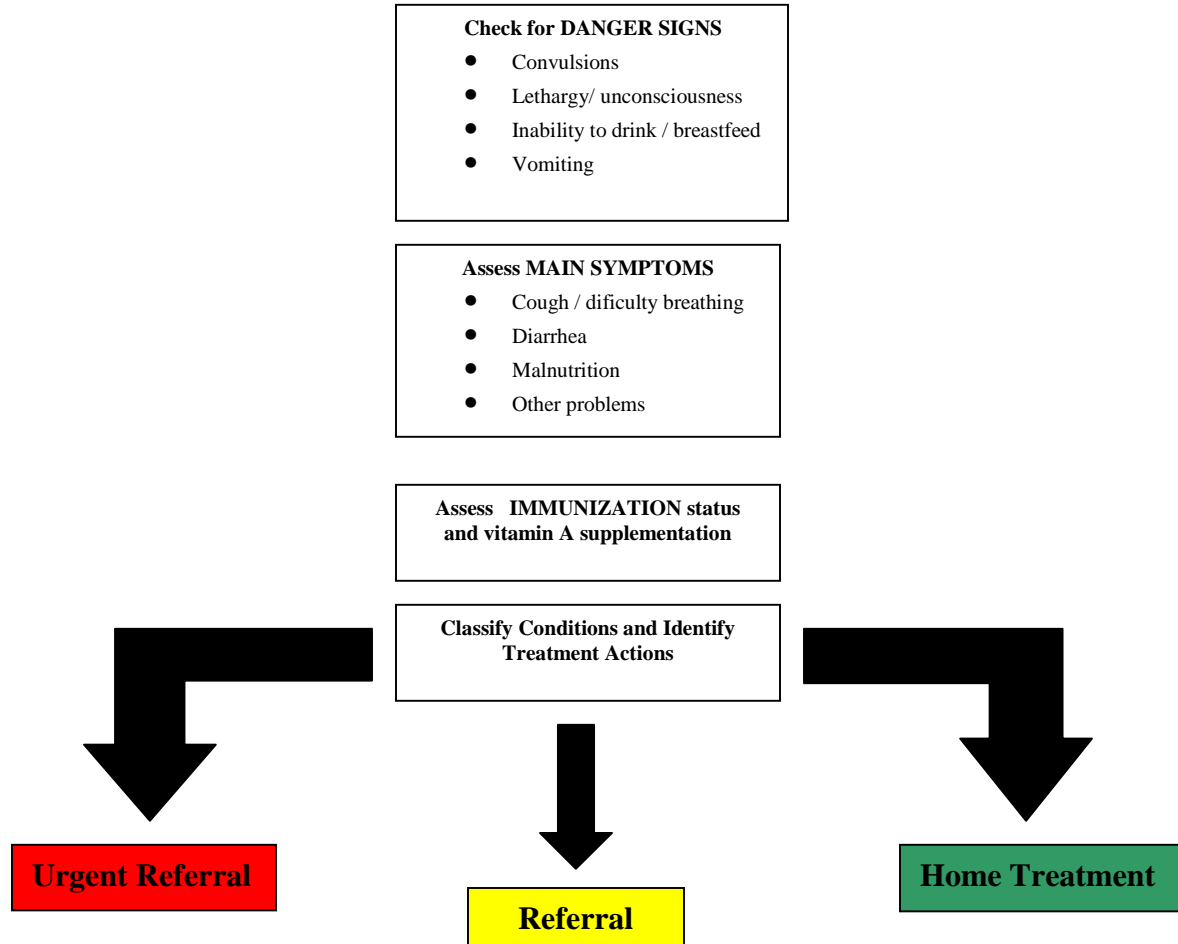
CHAPTER 2: THE INTEGRATED CASE MANAGEMENT PROCESS / RATIONAL

Process of IMCI

Integrated case management relies on case detection using simple clinical signs and research-based treatment. As few clinical signs as possible are used. The IMCI process (see figure 1) includes three basic steps for every health topic included:

- ❑ **Assess** a child through questions and observation. First the Community Health Worker checks for the presence of danger signs. Henceforth, s/he “evaluates” the presence of main symptoms related to cough/difficult breathing, diarrhea/dehydration, malaria, fever, ear infections and malnutrition. The following step includes the assessment of immunization status and vitamin A supplementation.
- ❑ **Classify** the condition of the child using a color-coded triage system. Thus, **red color indicates urgent need for referral**; **the yellow color indicates referral**, and **green color, home-management and follow-up**.
- ❑ **Identify** specific treatments for the child. Each treatment is determined in accordance to the color-coded classification and explained in detail in the clinical guidelines.

Figure 1. Process of the management of cases in the IMCI strategy for children of 2 months to 5 years old. (modified from WHO/UNICEF “model chapter for textbooks”)



CHAPTER 3: USING THE GUIDELINES FOR COMMUNITY HEALTH WORKERS (CHW)

OBJECTIVES

At the end of the session, the participants will be able to:

- Identify the case management steps for children age 2 months up to 5 years of age.
- Describe the case management steps using the Child Health Recording Form.

CONTENTS

- Case Management Step
- Child Health Recording Form

METHODS

- Lecture with discussion
- Open forum

MATERIALS

- Meta cards
- Enlarged version of the Child Health Monitoring Form

REFLECTION

Facilitator Instructions

Show the enlarged version of the recording form. Ask the participants what they notice or observe about the form.

DEFINITION

The case management steps are the same for all sick children from age 2 months up to 5 years. These guidelines do not include case management for children one day to 59 days old, therefore we recommend that children within this range of age (1 to 59 days old) and with any kind of illness be referred to the nearest health facility.

When visiting a mother with a child from 2 months to 5 years old:

- Greet
- Explain the reason for the visit to the caretaker
- Listen actively
- Use the 'Child Health Recording Form'

** There is an example of the Child Health Recording Form at the end of this chapter.*

Facilitator's Instructions

The facilitator should discuss carefully the usage of the Child Health Recording Form as described and shown below:

The recording form has 3 columns: PROBLEM, ASK/LOOK, and WHAT TO DO. This form guides the Community Health Worker in assessing the 'PROBLEM' by asking questions that leads to the second column, classifying the child's illness. The 'LOOK/ASK' column categorizes the child's illnesses in the color's **red**, **yellow**, or **green** according to the severity of the illness. This is followed by the last column, 'WHAT TO DO', which identifies if referral and/or treatment guidelines need to be addressed. Each column is explained in more detail. Present the record form to the CHW while explaining each of these columns.

Col 1: The '**PROBLEM**' column on the left side of the recording form describes the most common health problems to assess. Depending on where you are located, some diseases are more prevalent than others. Training may not be long enough for the CHW's to learn all of the diseases. Choose which health problems are the most important and list them in sequential order of the most importance.

Col 2: The '**LOOK / ASK**' column presents a list of symptoms that need to be assessed by the CHW. For each of the child's main symptoms, the CHW will select either YES or NO and circle it in the YES/NO option. In the third column, treatment and referral decisions will be made based on the answers to these YES/NO questions.

Col 3: The '**WHAT TO DO**' column helps you to quickly identify which referral is necessary along with any home treatment / education. The classification is made by the colors: **RED, YELLOW, and GREEN**. This simply means that the health care worker makes a decision about how severe the illness is and designates the appropriate color to it. This decision is based on the child's main symptoms. Appropriate referrals are recommended for each classification color. The color red means that the child should be urgently referred to the nearest hospital. If no hospital is accessible, refer the mother and child to the nearest health facility (i.e. clinic). The color yellow means that the problem is not urgent, but still should be referred to a health center. The color green means that care can be given at home. In addition to the color, additional care may be recommended during this assessment.

CHILD HEALTH RECORDING FORM

Date: _____

Name of Child: _____

Age in Years: _____ Age in Months (if under 1 years old): _____

Sex _____ Weight: _____ kg Temperature: _____

PROBLEM	LOOK/ASK	WHAT TO DO
<p>CHECK FOR GENERAL DANGER SIGNS →</p>	<ul style="list-style-type: none"> ▪ Not able to drink or breastfeed YES NO ▪ Vomits everything YES NO ▪ Convulsion YES NO ▪ Very sleepy or unconscious YES NO 	<p>If YES to <u>any</u> question, Urgently Refer to Health Center</p> <p>If NO to <u>all</u> questions, Continue with assessment</p>
<p>Check for a Fever →</p>	<ul style="list-style-type: none"> ▪ If thermometer is available, take temperature under the arm of the child. _____ C ▪ Temperature is 37.5 C or higher? YES NO <li style="text-align: center;">OR ▪ If no thermometer is available, does child feel hot? YES NO <li style="text-align: center;">OR ▪ Felt hot in the last three days? YES NO 	<p>If YES to <u>any</u> question, <u>Further Assess</u>: Diagnosis is dependent on whether or not malaria is present where you are. If fever is present, choose the region that you are in for further assessment:</p> <ul style="list-style-type: none"> ▪ HIGH malaria region ▪ LOW malaria region
<p>HIGH Malarial Region: Does child have a fever? If YES →</p>	<p>Child has Malaria (no further assessment needed to diagnose malaria): →</p> <p><i>*Note:</i> Be sure to assess for pneumonia before treatment is given; antimalarial treatment differs depending on presence or absence of pneumonia. For guidance on assessing pneumonia, see section: 'Cough or Fast Breathing'</p>	<p>If child has a fever, child has: <u>Malaria</u> Refer to Health Center</p> <ul style="list-style-type: none"> ▪ Give first dose of antimalarial medication ▪ Give Paracetamol if fever is 38.5C or above (See <i>*Note</i> in previous box)
<p>LOW Malarial Region: Does child have a fever? If YES →</p>	<p>Are there signs of:</p> <ul style="list-style-type: none"> ▪ Ear Infection? YES NO ▪ Runny Nose? YES NO ▪ Cough? YES NO ▪ Measles? YES NO ▪ Danger Signs? YES NO ▪ Any obvious infections? YES NO 	<p>If NO to <u>all</u> questions, child has <u>Malaria</u> Refer to Health Center</p> <ul style="list-style-type: none"> ▪ Give first dose of antimalarial medication ▪ Give Paracetamol if fever is 38.5C or above <p>If YES to <u>any</u> question, <u>Not Malaria</u> Continue assessment with NO malaria region</p>



PROBLEM	LOOK / ASK	WHAT TO DO
<p>No Malaria Region:</p> <p>FEVER (assumption that there is no malaria)</p> <p>Does child have a fever?</p> <p>If YES, Start Assessment In This Box →</p>	<ul style="list-style-type: none"> For how long? _____ days If more than 7 days, has fever been present each day? YES NO 	<p>If YES, child has: <i>Complicated Fever</i></p> <p>Urgent Referral to Health Center</p> <ul style="list-style-type: none"> Give small amounts of liquids frequently (extra fluids) Continue Breastfeeding Give Paracetamol if temperature is 38.5C or above. <p>If NO, continue to assess child for malaria by moving to the next 'LOOK/ASK' box.</p>
	<ul style="list-style-type: none"> Generalized Rash <p>AND</p> <ul style="list-style-type: none"> <u>one</u> of the following: cough, runny nose, or red eyes YES NO 	<p>If YES, child has: <i>Measles</i></p> <p>Urgent Referral to Health Center</p> <ul style="list-style-type: none"> Give Vitamin A Give small amounts of liquid frequently OR continue breastfeeding Give Paracetamol if temperature is 38.5C or higher
	<p>NO SIGNS OF:</p> <ul style="list-style-type: none"> Fever more than 7 days No Generalized Rash with cough, runny nose or red eyes 	<p>If NO signs are present, child has: <i>Uncomplicated Fever</i></p> <p>Refer to Health Center</p> <ul style="list-style-type: none"> Give small amounts of liquid frequently Continue Breastfeeding Keep child in well ventilated room Give sponge bath to lower temperature Follow-up in 24 hours

PROBLEM	LOOK / ASK	WHAT TO DO
<p>Does the child have cough or fast breathing?</p> <p>If YES →</p>	<ul style="list-style-type: none"> ▪ Count the number of breaths in one minute: _____ breaths per minute ▪ Does child have fast breathing? YES NO ▪ Does child have chest indrawing? YES NO ▪ Does child have strange sounds in chest? YES NO 	<p>If YES to <u>any</u> question, child has:</p> <p style="text-align: center;"><i>Pneumonia</i></p> <p style="text-align: center;">Urgent Referral to Health Center</p> <hr/> <p>If NO to <u>all</u> questions, child has:</p> <p style="text-align: center;"><i>Common Cold</i></p> <p style="text-align: center;">See guidelines for Home Care</p>
<p>Assess for Diarrhea:</p> <p>Ask Mother: Does child have more stools (use local word) than usual?</p> <p>If YES, Start Assessment In This Box →</p>	<p>Is the child:</p> <ul style="list-style-type: none"> ▪ Sleepy or unconscious? YES NO ▪ Not able to drink or breastfeed? YES NO ▪ Sunken eyes? YES NO ▪ Pinch skin: skin goes back very slowly (longer than 2 seconds) YES NO ▪ Blood in the stool YES NO 	<p>If YES to <u>any</u> question, child has:</p> <p style="text-align: center;"><i>Diarrhea with severe dehydration</i></p> <p style="text-align: center;">Urgent referral to Health Center</p> <ul style="list-style-type: none"> ▪ Advise caretaker to give frequent sips of ORS on the way ▪ Continue breastfeeding <hr/> <p>If NO to <u>all</u> questions, Continue to assess for diarrhea</p>
	<p>Is the child:</p> <ul style="list-style-type: none"> ▪ Irritable or restless YES NO <p style="text-align: center;">AND / OR</p> <ul style="list-style-type: none"> ▪ Drinks eagerly, thirsty YES NO 	<p>If YES to <u>both</u> questions, child has:</p> <p style="text-align: center;"><i>Diarrhea with dehydration</i></p> <p style="text-align: center;">Refer to Health Center</p> <hr/> <p>If NO to <u>one or both</u> questions, child has:</p> <p style="text-align: center;"><i>Diarrhea with no signs of dehydration</i></p> <p style="text-align: center;">See Guidelines for Home Care</p>

PROBLEM	LOOK / ASK	WHAT TO DO
Ask mother: Does child have an ear problem? If YES → If NO, go to 'Assess for Malnutrition'	<ul style="list-style-type: none"> • Is there ear pain YES NO <li style="text-align: center;">OR • Does child rub ear frequently? YES NO <li style="text-align: center;">OR • Is there liquid in either ear? YES NO 	If YES to <u>any</u> question, Child has <u>Ear Infection</u> . <ul style="list-style-type: none"> ▪ Continue to assess further for ear infections If NO , Skip the ear infection sections completely.
If child has liquid in ear, then → If child does not have liquid in either ears, then, ↓	<ul style="list-style-type: none"> • How long has liquid been in ear? _____ days • Has it been more than 2 weeks? YES NO 	If YES , then child has <u>Chronic Ear Infection</u> Refer to Health Center <ul style="list-style-type: none"> ▪ Dry ear by wicking ▪ Teach mother to continue dry ear by wicking ▪ If child has pain, give 1 dose of paracetamol If NO , child <u>doesn't</u> have a chronic ear infection, Continue to assess for ear infection
Continue to assess for ear problem, Start here →	<ul style="list-style-type: none"> • Is there tender swelling around the ear? (<i>mastoiditis</i>) YES NO <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> • If there are NO signs of Chronic Ear Infection • No signs of Mastoiditis 	If YES , then child has <u>Mastoiditis</u> Urgent Referral to Health Center <ul style="list-style-type: none"> ▪ Give first dose of appropriate antibiotic ▪ If child has pain, give 1 dose of paracetamol If NO , Continue to assess for ear infections
		If YES to <u>both</u> questions, then child has: <u>Acute Ear Infection</u> Refer to Health Center <ul style="list-style-type: none"> ▪ Give one dose of appropriate antibiotic ▪ If liquid is present, dry the ear by wicking ▪ If child has pain, give 1 dose of paracetamol

PROBLEM	LOOK / ASK	WHAT TO DO
<p>Assess for Malnutrition →</p>	<p>Does child have:</p> <ul style="list-style-type: none"> • Visible severe wasting YES NO • Edema of both feet YES NO <hr/> <ul style="list-style-type: none"> • Weigh Child: _____ kg • Plot weight on graph. <p>Compare weight of child with last weight measurement</p> <p>Does the child have low weight for age or no weight gain since last measurement? YES NO</p>	<p style="background-color: red; color: black; padding: 5px;">If YES to <u>either</u> question, then child has: <i>Severe malnutrition</i> Urgent referral to Health Center</p> <p>If NO to <u>both</u> questions, continue to assess for 'malnutrition' that isn't severe.</p> <p style="background-color: green; color: black; padding: 5px;">If YES, then child has: <i>Malnutrition</i> Refer to Health Center</p> <ul style="list-style-type: none"> ▪ Assess for Breast Feeding problems ▪ Refer to guidelines for feeding recommendations. <p>If NO, child is not low weight for age.</p> <ul style="list-style-type: none"> • Skip 'Breastfeeding Problems' <li style="text-align: center;">AND ▪ Go To 'Check for Vitamin A Supplement'
<p>Assess for Breast Feeding Problems</p> <p>Is child low weight for age?</p> <p>If YES, →</p> <p>If NO, go to 'Check for Vitamin A Supplement'</p>	<ul style="list-style-type: none"> • Does the child breastfeed? YES NO <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Will child be given an urgent referral to the hospital for another problem? YES NO 	<p>If child <u>isn't</u> breastfeeding OR is being referred to the hospital for another problem, do not assess for breastfeeding problems.</p> <p>If child <u>is</u> breastfeeding AND is not being referred to the hospital for another problem, go to Assess Correct Positioning.</p>

PROBLEM	LOOK / ASK	WHAT TO DO
<p>Assess Positioning of Baby →</p>	<p>Assess child breastfeeding for 4 minutes:</p> <ul style="list-style-type: none"> • Is chin of baby touching the mother's breast? YES NO • Is baby's mouth wide open? YES NO • Is the lower lip of the baby turned outward? YES NO • Is more areola above the mouth rather than below? YES NO • Is the infant suckling effectively? YES NO 	<p>If YES to <u>any</u> question, show mother the correct way to position the baby when breast-feeding.</p> <p>Continue with Assessment</p> <p>If NO to <u>all</u> the questions, child is correctly positioned when breastfeeding.</p> <p>Continue to assess for problems with mother's breast(s)</p>
<p>Assess breast(s):</p> <p>Does mother complain of problem(s) with breast(s)?</p> <p>If YES, →</p> <p>If NO, go to the next section of this form. ↓</p>	<ul style="list-style-type: none"> • Is there dryness and/or cracking at or around the nipple? YES NO • Is there swelling and/or pain (engorgement) of the breast? YES NO • Is this the 3rd consecutive visit that the mother has had pain and or cracking skin on the breast(s)? YES NO 	<p>If NO drying, cracking, or pain.</p> <p>Go to "Check for Vitamin A Supplement"</p> <p>If NO to: 3rd follow-up visit AND If YES to: dryness / cracking or swelling / pain.</p> <p>See Guidelines for Home Care of Breast Problems</p> <p>If YES to: This is your 3rd visit to the mother for breast problems AND YES, there is continued dryness / cracking or swelling / pain.</p> <p>Urgent Referral to Health Center</p>

PROBLEM	LOOK / ASK	WHAT TO DO																								
<p>Check for Vitamin A Supplement  (Children 6 months old or older ONLY)</p>	<ul style="list-style-type: none"> Has child received Vitamin A within the last six months? YES NO 	<p>If NO, child <u>Has Not Received Vitamin A</u></p> <p>Home Care includes:</p> <ul style="list-style-type: none"> Give Vitamin A capsule Inform caretakers on the importance of Vitamin A 																								
<p>Check for Vaccinations: </p>	<p>In the table below, go to the age of the child. Check if the vaccines up to this age were given. If something has not been given, circle the vaccine.</p> <table border="1" data-bbox="418 793 1091 961"> <thead> <tr> <th>AGE</th> <th>At Birth</th> <th>1 ½ Months</th> <th>2 ½ Months</th> <th>3 ½ Months</th> <th>9 Months</th> </tr> </thead> <tbody> <tr> <td>VACCINE</td> <td>BCG</td> <td>Polio 1</td> <td>Polio 2</td> <td>Polio 3</td> <td>Measles</td> </tr> <tr> <td></td> <td></td> <td>DPT 1</td> <td>DPT 2</td> <td>DPT 3</td> <td></td> </tr> <tr> <td></td> <td></td> <td>HBV 1</td> <td>HBV 2</td> <td>HBV 3</td> <td></td> </tr> </tbody> </table> <p>*Note, this table will be adapted to country specifics of vaccination types and time given</p>	AGE	At Birth	1 ½ Months	2 ½ Months	3 ½ Months	9 Months	VACCINE	BCG	Polio 1	Polio 2	Polio 3	Measles			DPT 1	DPT 2	DPT 3				HBV 1	HBV 2	HBV 3		<p>If child has <u>all</u> vaccinations for age, then child has:</p> <p><u>Complete schedule</u></p> <ul style="list-style-type: none"> Congratulate caretaker Advise on future immunizations <p>If child has not received a vaccination for his/her age, then child has:</p> <p><u>Incomplete schedule</u></p> <ul style="list-style-type: none"> Inform caretaker on advantages of vaccination <p>Refer for vaccination to nearest health center</p>
AGE	At Birth	1 ½ Months	2 ½ Months	3 ½ Months	9 Months																					
VACCINE	BCG	Polio 1	Polio 2	Polio 3	Measles																					
		DPT 1	DPT 2	DPT 3																						
		HBV 1	HBV 2	HBV 3																						
<p>Does the child have any other problems?</p>																										

THE SICK CHILD AGE 2 MONTHS UP TO 5
YEARS:

ASSESS PROBLEM
AND
CLASSIFY COLOR

CHAPTER 4: COMMUNICATING WITH AND COUNSELING MOTHERS AND CAREGIVERS

The common complaint by caregivers or persons seeking health services at health centers is the way the health personnel or health workers communicate with them. Advice is often given directly and in some cases in a harsh manner. This usually happens when health workers are confronted with the same problems all the time of which they think is a simple case of negligence.

OBJECTIVES

After the session, the participants will be able to:

- Explain importance and techniques of effective communication
- Explain techniques in counseling mothers
- Demonstrate skills in communicating and counseling mothers

CONTENT

- Effective ways in communication
- Counseling techniques

METHODS

- Reflection session
- Lecture-discussion
- Role play

MATERIALS

- News prints
- Cartolina for meta-cards
- Writing Utensils
- Paper

MAIN RESOURCE (Chapter 4)

WHO/CDR/95.14.B (1995) *Assess & Classify the Sick Child Age 2 Months Up to 5 Years*. World Health Organization & UNICEF

REFLECTION

Facilitator's Instructions

Read the story to the participants and let them reflect for a few moments.

Communication in Growth Promotion

A Sad Story

A mother comes to the clinic with her very small baby. She has lost her Growth Monitoring Card or Yellow Card and feels very frightened to tell the health worker. The health worker shouts at the mother, 'Where is your Growth Monitoring Card?' The mother whispers her response. The health worker shouts, 'If you cared more about this little baby you wouldn't forget to bring that card.'

The mother looks down and hands over the child who is crying. The health worker weighs the child, shakes her head sadly, and writes information in her own book without telling the mother what she is writing.

The mother is frightened and worried. She thinks: 'Is there something wrong with my son?' The health worker then speaks very quickly to the mother 'Your son is underweight.' Give him more food more times a day. Use fruit and vegetables and breastfeed him more often. That's all! Next time, bring your Yellow Card!'

After reading the story, start the discussion by asking the participants the following questions:

"What did the health worker do in 'A Sad Story?'"

(Record their ideas on newsprint, and add some suggestions from the list below.)

- Scolded
- Spoke quickly
- Used a nutrition message that may have been inappropriate
- Wrote information without telling the mother
- Told mother what to do
- Gave orders instead of information
- Ask participants: "What else could you add?"

2. Now, ask the participants to think of 3 ways they would expect the mother to act as a result of what the health worker did in the story'

“What would the mother probably do as a result?”

(Record their ideas on newsprint, and add some suggestions from the list below.)

- Worry
 - Get discouraged
 - Lose hope
 - Forget the message
 - Feel bad that she does not have enough fruit and vegetables
 - Decide not to return next time
 - Tell her sisters and friends about the harsh person
 - Ask the participants what else could you add?
3. Ask Trainees to think about how the health worker could have improved the communication. Record/write responses and reinforce their answers through a brief lecture – (box) Specific Ways to Communicate Well.

DEFINITION

Counselling the mothers of small children in child survival, growth and development is both an art and a science. An example of the **science** is in the weighing of the child, charting the weight and interpreting the growth curve. The **art** is in effective 2-way communication with the mother: Listening attentively to the mother's perspective and sharing new information in a sensitive, systemic and sure manner. The health worker also needs to be confident in helping the mother to evaluate the situation and make decisions for herself about child health problems.

Training of health workers in communication skills – especially learning to listen, is a way of empowering mothers to promote their children's health. It allows mothers to voice their opinions and views as to why their children are or are not healthy. This is important because much can be learnt from mothers whose children thrive, even in adverse conditions.

When counselling a mother, here are some concepts that need to be kept in mind when working with mothers:

- ***Actively listen to the mother***
At the beginning of an interview try to give minimal input and let the mother do as much of the talking as possible. Encourage the mother to keep giving her story by words such as: “Yes, mmm, aha, and then...” Only towards the end of an interview should you cover what aspects you particularly want answers to.

- ***Facilitative or open-ended questions***
When asking a question try to use facilitative or open-ended questions. These are questions that encourage the mother to talk freely. These questions often begin with words such as: “How, tell me about, why”. You could also look puzzled or say “I don’t follow you...” This will encourage the mother to elaborate.
- ***Use helpful non-verbal communication***
This shows that you are interested in the mother and involves such basic techniques as: Sitting forward attentively as you listen and not leaning back or playing with your pen; smiling if the mother smiles; nodding in response to a statement to show understanding.
- ***Reflect back to what the mother says***
This means repeating what the mother says in the same or similar words. This shows the mother that you have heard and understood what she said and encourages her to say more. The mother is encouraged to say more if you say the phrase almost as a question. For example, the mother says that Sipho (replace with common name in region) had a fever and then goes on without elaborating. You could then say: “You say Sipho (replace with common name in region) has had some fever?” Saying the last word “fever” at a higher pitch of voice also encourages the mother to elaborate further.
- ***Empathize***
This means showing that you understand what the mother feels about a situation as if it were your own situation.
- ***Avoid judgmental attitudes or words which sound judging***
These words or statements may make the mother feel that she is wrong or that there is something wrong with the baby. These words can include: right, wrong, badly, good.

Specific Ways to Communicate Well

- Evaluate the child’s situation with the mother, in other words ask *‘how her child has been since he/she was last seen’*
- Talk to the mother to establish priorities
- Share practical information with the mother, i.e. *‘praise her for what she does well then give her relevant nutrition and health messages’*
- Assist the mother to take action
- Listen to the mother and offer encouragement
- Create a comfortable learning environment for the mother
- Call her by her name
- Listen to what she has to say
- Ask facilitative or open-ended questions
- Give the mother time to think
- Make sure you are clearly heard and understood
- Do not give too many messages or information at once
- Make a plan about how to involve all the relevant family members, i.e. *father, grandmother, and aunty* who will support the mother

Helpful Non-Verbal Communication

- Keep your head level
- Pay attention
- Remove barriers
- Take time
- Touch appropriately

Listening and Learning Skills

- Use helpful non-verbal communication
- Ask open questions
- Use responses and gestures which show interest
- Reflect back what the mother says
- Emphasize – show that you understand how she feels
- Avoid words which sound judgmental

CHAPTER 5: GENERAL DANGER SIGNS

OBJECTIVES

At the end of the session, the participants will be able to:

- Recognize the general danger signs in sick children.
- To use or fill-in the recording form correctly
- Demonstrate skills in referring sick child to the hospital.

CONTENT

- General Danger Signs
- Basic assessment on general danger signs
- Steps in referral

METHODS

- Reflection Session
(sharing of experiences)
- Mini-lecture
- Field practicum
- Video exercise
- Practice exercise through recording form
- Lecture-discussion

MATERIALS

- Paper
- Writing Utensils
- Recording form
- Referral form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. Have you ever been in the presence of a dying or very sick child?
2. What were the signs that would indicate to you that the child was very sick or dying?
3. What was the disease the child was suffering from?
4. What did the mother or caretaker report for how the disease started?
5. If the child was at a very sick stage, why did the mother or caretaker not seek help before the disease progressed to this stage?
6. What are some signs that you would consider to indicate danger?

DEFINITION

A child with a general danger sign has a serious problem. Children with a general danger sign need **URGENT referral to a hospital**. They may need lifesaving treatment with intravenous antibiotics inserted into the vein, oxygen, or other treatments that usually are only available at hospitals. If no hospital is available, then refer mother and child to the nearest health facility or clinic.

HOW TO RECOGNIZE DANGER SIGNS

The first topic in the column of “PROBLEM” (Recording Form) that you will find is titled CHECK FOR GENERAL DANGER SIGNS.

Ask the questions and look for the clinical signs described in the box.

CHECK FOR GENERAL DANGER SIGNS

ASK:

- Is the child able to drink or breastfeed?
- Has the child had convulsions?
- Does the child vomit everything?

LOOK:

- See if the child is very sleepy or unconscious

■ **ASK: IS THE CHILD ABLE TO DRINK OR BREASTFEED?**

A child has the sign “not able to drink or breastfeed” if the child is not able to suck or swallow when offered a drink (clean water) or breast milk.

When you ask the mother if the child is able to drink, make sure that she understands the question. If she says that the child is not able to drink or breastfeed, ask her to describe what happens when she offers the child something to drink. For example, is the child able to take fluids into his mouth and swallow it? If you are not sure about the mother’s answer, ask her to offer the child a drink of clean water or breast milk. Look to see if the child is swallowing the water or breast milk.

■ **ASK: DOES THE CHILD VOMIT EVERYTHING?**

A child has the sign “VOMIT EVERYTHING” if the child is not able to retain what he/she has eaten or drank. What goes into the child’s mouth must come back out of the child’s mouth. The community health worker needs to ask the mother if the child vomits every time he/she is being fed. For this sign to be positive, the answer needs to be every time; if the child is able to retain something, then this sign is absent.

If in doubt, the community health worker should offer the child something to drink; and observe what happens thereafter. If the child vomits everything immediately, he/she has retained nothing and the child has vomited everything. Then this sign is present. If the child doesn’t vomit immediately, the child is retaining some food or drink. Then this sign is absent.

■ **ASK: HAS THE CHILD HAD CONVULSIONS?**

During a convulsion, the child has trembling movements of the entire body. The child’s arms and legs stiffen because the muscles are contracting. The child may lose consciousness or not be able to respond to spoken directions.

Ask the mother if the child has had convulsions during this current illness. Use words the mother understands. Or give an example that the mother may know as convulsions such as “fits” or “spasms.”

■ **LOOK: TO SEE IF THE CHILD IS VERY SLEEPY OR UNCONSCIOUS?**

A very sleepy child is not awake and alert when she should be. The child is drowsy and does not show interest in what is happening around him. Often the very sleepy child does not look at his mother or watch your face when you talk. The child may stare blankly or without any facial expression appearing to not notice what is going on around him.

Continued on Next Page

An unconscious child cannot be awakened. He does not respond when he is touched, shaken or spoken to.

Ask the mother if the child seems unusually sleepy or if she cannot wake the child. Look to see if the child awakens when the CHW or mother talks to the child, shakes the child or claps their hands near the child.

SKILL DEVELOPMENT

Exercise with videos (FACILITATOR’S INSTRUCTIONS)

1. In this section, the CHWs’ will be presented a video in which they will try to identify very sleepy or unconscious children from normal children.
2. Once the CHWs have identified the cases, each will write in a piece of paper the name of the child who was very sleepy or unconscious.

EVALUATION OF DANGER SIGNS: MANAGEMENT OF RECORDING FORM

Exercise with recording form (FACILITATOR’S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the “Child Health Recording Form”. The ‘General Danger Sign’ section of this form is illustrated below this box.
2. Ask a fellow Community Health Worker to pair with you
3. Go out into the community and visit three houses each, where there is a child under two years of age.
4. Check for general danger signs and fill up the form accordingly.

PROBLEM	LOOK / ASK	WHAT TO DO
CHECK FOR GENERAL DANGER SIGNS →	<ul style="list-style-type: none"> ▪ Not able to drink or breastfeed YES NO ▪ Vomits everything YES NO ▪ Convulsion YES NO ▪ Very sleepy or unconscious YES NO 	If YES to <u>any</u> question, Urgently Refer to Health Center
		If NO, Continue with assessment

AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

If the child has a general danger sign, complete the rest of the assessment immediately. This child has a severe problem. There must be no delays in his or her treatment. URGENT REFERRAL TO HEALTH CENTER.

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem.** For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there. Write:

- The name and age of the child
- The date and time of referral
- General danger sign detected
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Advise the mother to continue breastfeeding.
- If the child has some or severe dehydration and can drink, give the mother some Oral Rehydration Solution for the child to sip frequently on the way.

CHAPTER 6: COUGH OR DIFFICULT BREATHING

OBJECTIVES

At the end of the session, the participants will be able to:

- Recognize signs of cough and difficult breathing
- Identify critical steps in referral.
- Advise mothers on home management of cough and difficult breathing.
- Give follow-up care.
- Fill-in recording form correctly.

CONTENT

- Signs and symptoms of cough and difficult breathing
- Steps in referral
- Using the recording form

METHOD

- Reflection Session
- Lecture-discussion
- Field practicum
- Exercise with videos & recording form

MATERIALS

- Paper
- Writing Utensils
- Recording form
- Referral form
- Watch with a second hand or digital watch

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. What do you think are the main causes of respiratory infections in your community?
2. How do you recognize a respiratory infection in a child? What are the signs?
3. What are the signs of Pneumonia?
4. What kind of treatments do you know and/or have used in the past to treat this type of infection?

DEFINITION

A cough is a sudden, audible expulsion of air from the lungs. Coughing is an essential protective response that serves to clear the lungs, bronchi or trachea of irritants and secretions in addition to preventing aspiration of foreign material into the lungs. Coughing is a common symptom of diseases of the lungs.

A child with cough or difficult breathing may have an illness that is not life threatening, such as the common cold. The child may also have a severe and life-threatening disease such as pneumonia.

Pneumonia is an infection of the lungs. Pneumonia is often caused by bacteria. Children with bacterial pneumonia may die from too little oxygen in their blood because the infection spreads into the entire body.

Most of the children with cough that you will see will have only a mild infection. These children are not seriously ill. They do not need treatment with antibiotics. Their families can manage them at home.

You need to identify the few, very sick children with cough or difficult breathing who need treatment with antibiotics. Fortunately, you can identify almost all cases of pneumonia by checking: **FAST BREATHING, CHEST INDRAWING, and STRANGE SOUNDS.**

When children develop pneumonia, their lungs become stiff. As the lungs become stiff, less oxygen can air them. One of the body's responses to stiff lungs and less oxygen is fast breathing. When the pneumonia becomes more severe, the lungs become even stiffer, the bodies response is chest indrawing. Chest indrawing is a sign of severe pneumonia.

HOW TO RECOGNIZE PNEUMONIA

CHECK FOR COUGH OR DIFFICULT BREATHING

ASK:

- Does the child have cough or difficult breathing?

If YES, Then

LOOK:

- Count the breaths in one minute
- Listen for strange sounds in the chest of the child
- Check for chest indrawing

If caretaker answers no to the question, 'Does the child have cough or difficult breathing?', you can move to the next problem on the child record form. If the caretaker was unsure or answered YES to the question, continue to assess the child.

■ LOOK: COUNT THE BREATHS IN ONE MINUTE

You must count the breaths the child takes in one minute to decide if the child has fast breathing. The child must be quiet and calm when you look and listen to his breathing. If the child is frightened, crying or angry, you will not be able to obtain an accurate count of the child's breaths.

Tell the mother you are going to count her child's breathing. Remind her to keep her child calm. If the child is sleeping, do not wake the child. To count the numbers of breaths in one minute use a watch with a second hand or a digital watch. Look for breathing movement anywhere on the child's chest or abdomen.

The cut-off for fast breathing depends on the child's age. Normal breathing numbers per minute are higher in children age 2 months up to 11 months than in children aged 1-year-old to 5 years old. For this reason, the cut-off for identifying fast breathing is different for these two groups of children, thus:

<u>Child's Age</u>	<u>Fast Breathing</u>
Child is 2 months to 11 months old	50 breaths per minute or more
Child is 12 months to 5 years old	40 breaths per minute or more

Before you look for the next two signs: chest indrawing and strange sounds, watch the child to determine when the child is breathing IN and when the child is breathing OUT.

■ LOOK: CHEST INDRAWING

Look for chest indrawing when the child breathes IN. Look at the lower (the lowest-last rib, where chest meets the abdomen) chest wall. The child has chest indrawing if the lower chest wall goes IN when the child breathes IN. Chest indrawing occurs when the effort the child needs to breath in is much greater than normal. In normal breathing the whole chest wall and the abdomen move OUT when the child breathes IN. When chest indrawing is present, the lower chest goes IN when the child breathes IN.

For chest indrawing to be present, it must be clearly visible and present all the time.

If you only see chest indrawing when the child is crying or feeding, the child does not have chest indrawing.

■ LOOK: AND LISTEN FOR STRANGE SOUNDS

If you hear strange and harsh sounds when the child is breathing IN, this could mean that the child's air tube is being obstructed. This may be due to an inflammation. Air may be reaching the lungs in small quantities. This can be a life-threatening situation. If you hear the strange sound only when the child is crying, this is not considered a strange sound. A strange sound is only considered if you hear the sound all the time and when the child is calm and breathing IN.

SKILL DEVELOPMENT

Exercise with videos


(FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video in which you will try to identify fast breathing, chest indrawing, and strange sounds.
2. Once you have identified your cases you will write in a piece of paper the number of the child and your classification.

EVALUATION OF COUGH OR DIFFICULT BREATHING: MANAGEMENT OF RECORDING FORM

Exercise with recording form (FACILITATOR’S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the “Child Health Recording Form”. Below this box is an illustration of the ‘Cough or Difficult Breathing’ section of this form.
2. Ask a fellow Community Health Worker to pair with you
3. Go out into the community and visit three houses each, where a child under two years of age is present.
4. Ask the mother for permission to count breathing, look for chest indrawing, and hear for strange sounds.

PROBLEM	LOOK / ASK	WHAT TO DO
Does the child have cough or fast breathing? If YES, 	<ul style="list-style-type: none"> Count the number of breaths in one minute: _____ breaths per minute Does child have fast breathing? YES NO Does child have chest indrawing? YES NO Does child have strange sounds in chest? YES NO 	<p>If YES to <u>any</u> question, child has: <i>Pneumonia</i> Urgent Referral to Health Center</p> <p>If NO to <u>all</u> questions, child has: <i>Common Cold</i> See guidelines for Home Care</p>

WHAT TO DO AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

If the child has fast breathing OR chest indrawing OR strange sounds, complete the rest of the assessment immediately. This child may have pneumonia. There must be no delays in his or her treatment. The child needs to be REFERRED immediately to the nearest clinic or hospital.

Note: If child is in a high malarial area, it is assumed that the child has malaria in addition to pneumonia. First dose treatment before urgent referral differs in this scenario. See guidelines for treatment if child is in a high malarial region.

If the child does NOT have fast breathing, does NOT have chest indrawing, and does NOT have strange sounds, then the child has no signs of pneumonia or severe disease. This child does not need an antibiotic. Instead, give the mother advice about good HOME CARE. This child may have a common cold, which normally improves in one to two weeks.

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem.** For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there. Write:

- The name and age of the child
- The date and time of referral
- Sign detected: fast breathing, chest indrawing or strange sound
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Advise the mother to continue breastfeeding.

CHAPTER 7: DIARRHEA

OBJECTIVES

After the session, the participants will be able to:

- Define diarrhea
- Recognize signs of dehydration
- Name ways to prevent dehydration
- Describe three ways to prevent diarrhea prevention
- Identify steps to do in referral

CONTENT

- Definition and Assessment of diarrhea
- Assessment of Dehydration
- Preparation of Oral Rehydration Solution (ORS)
- Steps in referral
- Using the recording form

METHODS

- Reflection Session
- Small Group Discussion
- Mini-Lectures
- Lecture-discussion
- Demonstration and Return-Demonstration
- Field practicum
- Exercise with videos and recording form

MATERIALS

- Paper
- Writing Utensils
- Packets of ORESOL
(or country specific ORS)
- Glasses of water
- Picture cards
- Recording form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

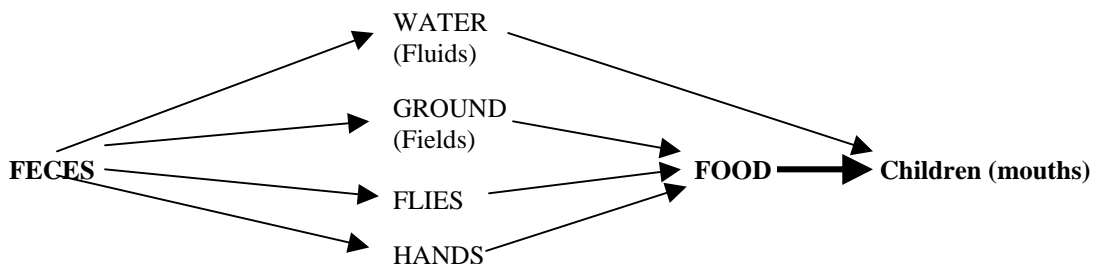
1. What do you think are the main causes of diarrhea in your community?
2. What can be done in a household in this community to prevent diarrhea?
3. How do you distinguish a mild case of diarrhea from a severe form? (What are the signs of dehydration?)
4. What kind of treatments do you know and/or have used in the past to treat this type of infections?

DEFINITION

Diarrhea occurs when stools contain more water than normal. It is common in children, especially those between 6 months and two years of age. Babies who are exclusively breastfed often have stools that are soft; this is not diarrhea. The mother of a breastfed baby can recognize diarrhea because the consistency or frequency of the stools is different than normal.

Mothers usually know when their children have diarrhea. The mother knows how many stools per day the child usually has. If the child has diarrhea, the mother will notice that the child will have more stools than usual throughout the day. There is usually a commonly used word for diarrhea. Use this when asking the mother about her child's stools.

Diarrhea is almost always a result of fecal-oral contamination – that is from people getting small amounts of the feces of humans and animals into their mouths. Diarrhea can be prevented by blocking the transmission of the feces to the mouths of the children. Proper disposal of all feces, everyone washing their hands properly, and storing water correctly are the best ways to prevent diarrhea. Below is an illustration of how people get feces in their mouths through water and food sources.



HOW TO RECOGNIZE DIARRHEA AND DEHYDRATION

CHECK FOR DIARRHEA AND DEHYDRATION

ASK:

- Does the child have more stools than usual?

If YES, continue with Ask and Look,

ASK:

- Is there blood in the stool?
- For how long does the child have diarrhea?

LOOK:

- Look at the child's general condition. Is the child very sleepy or unconscious?
- Offer the child fluid. Is the child: not able to drink or drinking poorly? Drinking eagerly, thirsty?
- Look for sunken eyes
- Pinch the skin of the abdomen. Does it go back slowly (longer than 2

If caretaker answers no to the question, 'Does the child have diarrhea?', you can move to the next problem on the child record form. If the caretaker was unsure or answered YES to the question, continue to assess the child

■ LOOK: AT THE CHILD'S GENERAL CONDITION

There are two general danger signs that you would like to check when evaluating a child with diarrhea, these are: **very sleepy or unconscious**. Please refer to chapter 5 on General Danger Signs for a review of these two signs.

A child has the **sign restless and irritable** if the child is restless and irritable all the time or every time he is touched or handled. If an infant or child is calm when breastfeeding but again restless and irritable when he stops breastfeeding, he has the sign "restless and irritable". Many children are upset just because they are in the clinic. Usually these children can be consoled and calmed. They do not have the sign "restless and irritable".

■ LOOK: FOR SUNKEN EYES

The eyes of a child who is dehydrated may look sunken. Decide if you think the eyes are sunken. Then ask the mother if she thinks her child's eyes look unusual. Her opinion helps you confirm that the child's eyes are sunken.

■ LOOK: OFFER THE CHILD SOMETHING TO DRINK

Ask the mother to offer the child some water in a cup or spoon. Watch the child drink.

A child is **not able to drink** if he is not able to take fluid in his mouth and swallow it. For example, a child may not be able to drink because he is lethargic or unconscious. Or the child may not be able to suck or swallow.

A child is **drinking poorly** if the child is weak and cannot drink without help.

A child has the sign **drinking eagerly, thirsty** if it is clear that the child wants to drink. Look to see if the child reaches out for the cup or spoon when you offer her water. When the water is taken away, see if the child is unhappy because she wants to drink more.

■ LOOK: PINCH THE SKIN OF THE ABDOMEN

Ask the mother to place the child on a flat surface, so that the child is flat on his back with his arms at his side (not over his head) and his legs straight. Or, ask the mother to hold the child so he is lying flat in her lap.

Locate the area on the child's abdomen halfway between the umbilicus and the side of the abdomen. To do the skin pinch, use your thumb and first finger. Do not use your fingertips because this will cause pain. Place your hand so that when you pinch the skin, the fold of skin will be in a line up and down of the child's body and not across the child's body. Firmly pick up all of the layers of skin and the tissue under them. Pinch the skin for one second and then release it. When you release the skin, look to see if the skin pinch goes back:

- Slowly: **the skinfold remains raised for one second or more**
- Immediately: **the skinfold goes back immediately**

If the skin stays up for even a brief time after you release it, decide that the skin pinch goes back slowly.

SKILL DEVELOPMENT

Exercise with videos

(FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video, in which you will try to identify the child's general condition, sunken eyes, ability to drink, and skin pinch.
2. Once you have identified your cases you will write in a piece of paper the number of the child and your classification.

MANAGEMENT OF RECORDING FORM

Exercise with recording form (FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form" Below this box is an illustration of the diarrheal section on this form.
2. Ask a fellow Community Health Worker to pair with you
3. Go out into the community and visit three houses each, where a child under two years of age is present

Ask the mother for permission to evaluate the child's general condition, sunken eyes, and ability to drink, and skin pinch.

PROBLEM	LOOK / ASK	WHAT TO DO
Assess for Diarrhea: Ask Mother: Does child have more stools (use local word) than usual? If YES, Start Assessment In This Box →	Is the child: <ul style="list-style-type: none"> ▪ Sleepy or unconscious? YES NO ▪ Not able to drink or breastfeed? YES NO ▪ Sunken eyes? YES NO ▪ Pinch skin: skin goes back very slowly (longer than 2 seconds) YES NO ▪ Blood in the stool YES NO 	If YES to <u>any</u> question, child has: <i>Diarrhea with severe dehydration</i> Urgent referral to Health Center <ul style="list-style-type: none"> ▪ Advise caretaker to give frequent sips of ORS on the way ▪ Continue breastfeeding
	Is the child: <ul style="list-style-type: none"> ▪ Irritable or restless YES NO <p style="text-align: center;">AND / OR</p> <ul style="list-style-type: none"> ▪ Drinks eagerly, thirsty YES NO 	If YES to <u>both</u> questions, child has: <i>Diarrhea with dehydration</i> Refer to Health Center
		If NO to <u>one</u> or <u>both</u> questions, child has: <i>Diarrhea with no signs of dehydration</i> See Guidelines for Home Care

WHAT TO DO AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

Refer Urgently to Health Center if the child has any of the following signs:

- **very sleepy**
- **unconscious**
- **not able to drink**
- **has sunken eyes;**
- **when you pinch the skin of the abdomen, the skin goes back slowly;**
- **has blood in the stool**

Refer to Health Center if child has either of the following signs:

- **irritable or restless**
- **drinks eagerly; thirsty child**

Home Care can be given to child if the child does NOT have any of the above listed signs. Give the mother good advice about good home care. Chapter 15 has information on homecare for child with diarrhea. CHW should work with the household on prevention of diarrhea through improvement of three key household hygiene behaviors. The CHW shall observe the household, ask questions and then discuss with and show the household how diarrhea can be prevented. Chapter 15 also gives procedures on assessment and counseling of households for key hygiene behaviors promoting prevention of diarrhea.

3 F procedure:

1. **Fluids: Give the child more fluids than usual to prevent dehydration**
2. **Feeding: Continue to feed the child, to prevent malnutrition**
3. **Fast referral: Take the child to a health worker if there are signs of dehydration or other problems**

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem. For example:**

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

- 3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there. Write:**

- The name and age of the child
- The date and time of referral
- Sign detected: child's general condition, sunken eyes, ability to drink, skin pinch
- Treatment that you have given (related to first aid for diarrhea cases)
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Advise the mother to continue and increase breastfeeding.
- Provide the mother with Oral Rehydration Solution

Option 1 for Chapter 8: High Malarial Region

CHAPTER 8: MALARIA (HIGH TRANSMISSION REGION)

OBJECTIVES

At the end of the session, the participants will be able to:

- Describe the symptoms of malaria
- Explain the importance of assessing fast breathing
- Fill-in the recording form correctly
- Demonstrate skills in referring sick child to the hospital.

CONTENT

- Signs and symptoms of malaria and malaria with pneumonia
- Using the Record Form
- Management of referral of child

METHODS

- Reflection Session
- Mini-lecture
- Field practicum
- Video exercise
- Practice exercise through recording form
- Lecture-discussion

MATERIALS

- Papers
- Writing Utensils
- Recording form
- Referral form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. How do you recognize a child with malaria? What are the signs?
2. How do you recognize a child with a grave case of malaria? What are the signs?
3. How do you recognize a child with malaria and pneumonia? What are the signs?
4. What kinds of treatments do you know and/or have used in the past to treat a child with malaria? A child with malaria and pneumonia?
5. How do you prevent malaria in your community?

DEFINITION

Malaria is a parasite that infects the red blood cells of a person. The parasite is transmitted by the bite of a mosquito. If a mosquito carrying the parasite that causes malaria bites a person, the person will develop the disease. This person now has malaria.

Fever alone is considered sufficient to make a diagnosis of malaria in those localities with high risk of transmission. Other common symptoms of malaria include chills, headache, nausea, vomiting, yellow eyes, dark urine and excessive sweating.

CHECK FOR MALARIA

ASK:

- Has the child felt hot in the last three days?

LOOK:

- Does the child have an axillary temperature 37.5 C or higher? OR
- Does the child feel hot now?

If there is an answer of YES to any of the questions, the child has a fever. If you are in an area where malaria is common, fever is enough information to diagnose the child with malaria.

HOW TO RECOGNIZE MALARIA

■ LOOK: AXILLARY TEMPERATURE

Put thermometer under the arm as close to the shoulder as possible of the child. Put the arm down to the child's side. Be sure that the skin of the child is touching the thermometer and it is not touching the clothing. Wait three minutes or count to 210. Read thermometer. If temperature is 37.5 C or higher, the child has a fever.

■ LOOK: FEELS HOT

A thermometer is the best way to measure body temperature of a child. If no thermometer is available, feel child's forehead with palm of hand. If forehead is noticeably hot, child has a fever. If you are unsure whether or not the child is hot, ask the mother if the child is hot. If mother states that child is hot, child has a fever.

HOW TO RECOGNIZE MALARIA & PNEUMONIA

CHECK FOR PNEUMONIA

If child presents with malaria, then

LOOK:

<input type="checkbox"/> Does child have a cough with fast breathing?	YES	NO
---	-----	----

If a child has a cough with fast breathing in addition to the fever, child may also have pneumonia.

■ LOOK: COUGH WITH FAST BREATHING

If child has a cough, count how many breaths the child has in one minute. This will determine if the child is breathing faster than normal.

Breathing fast for a child, 2 to 12 months old, is 50 or more breaths per minute.
Breathing fast for a child, 13 months to five years old, is 40 or more breaths per minute.
See section of manual on pneumonia for more information.

BE CAREFUL!

The type of antimalarial treatment differs for malaria with pneumonia verses malaria without pneumonia.

SKILL DEVELOPMENT

Exercise with videos

(FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video, in which you will try to identify the child's temperature by thermometer and touch.
2. After determining that the child has a fever, you will identify if the child has a cough with fast breathing.
3. Once you have identified your cases you will write in a piece of paper the number of the child and your classification.

EVALUATION OF MALARIA OF RECORDING FORM

Exercise with recording form

(FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form". Below is an illustration of the 'Fever / High Malarial Region' section of this form.
2. Ask another person to pair with you
3. Go out into the community and visit three houses each, where a child under two years of age is present
4. Ask the mother for permission to evaluate the child for child's general condition, temperature, and absence of other obvious infections.

PROBLEM	LOOK / ASK	WHAT TO DO
Check for a Fever →	<ul style="list-style-type: none"> ▪ If thermometer is available, take temperature under the arm of the child. _____ C ▪ Temperature is 37.5 C or higher? YES NO <li style="text-align: center;">OR ▪ If no thermometer is available, does child feel hot? YES NO <li style="text-align: center;">OR ▪ Felt hot in the last three days? YES NO 	If YES to <u>any</u> question, Further Assess: Diagnosis is dependent on whether or not malaria is present where you are. If fever is present, choose the region that you are in for further assessment: <ul style="list-style-type: none"> ▪ HIGH malaria region ▪ LOW malaria region
HIGH Malarial Region: Does child have a fever? If YES →	Child has Malaria (no further assessment needed to diagnose malaria): * <u>Note</u> : Be sure to assess for pneumonia before treatment is given; antimalarial treatment differs depending on presence or absence of pneumonia. For guidance on assessing pneumonia, see section: 'Cough or Fast Breathing'	If child has a fever, child has: <i>Malaria</i> Refer to Health Center <ul style="list-style-type: none"> ▪ Give first dose of antimalarial medication ▪ Give Paracetamol if fever is 38.5C or above (See *<u>Note</u> in previous box)

WHAT TO DO AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

If child has malaria with cough and fast breathing, child will be given cotrimoxazole. This child has a severe problem. There must be no delays in his or her treatment. The child needs to be REFERRED immediately to the nearest clinic or hospital.

If child has malaria without cough with fast breathing, child will be given first dose of antimalarial medication. Child needs to be REFERRED to nearest health facility.

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem.** For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

- 3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there.** Write:

- The name and age of the child
- The date and time of referral
- Signs detected: temperature 38.5 C or higher, hot to the touch, or history of fevers; presence of cough; if cough is present, record number of breaths per minute
- Treatment that you have given

- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Give first dose of antimalarial medication. Please consult national guidelines for treatment of malaria plus pneumonia.
- Give Paracetamol if temperature is 38.5 C or higher
- Advise mother to continue breastfeeding

Option 2 for Chapter 8: Low Malarial Region

CHAPTER 8: MALARIA (LOW TRANSMISSION REGION)

OBJECTIVES

At the end of the session, the participants will be able to:

- Assess fever in a child
- Rule out other signs of infection; explain why this is important.
- To use or fill-in the recording form correctly
- Demonstrate skills in referring sick child to the hospital.

CONTENT

- Signs and symptoms of malaria
- Assess the absence of other infections
- Using the Record Form
- Management of referral of child

METHODS

- Reflection Session
- Mini-lecture
- Field practicum
- Video exercise
- Practice exercise through recording form
- Lecture-discussion

MATERIALS

- Paper
- Writing Utensils
- Recording form
- Referral form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. How do you recognize a child with malaria?
2. How do you recognize a child with a grave case of malaria? What are the signs?
3. How do you differentiate between malaria and other infections?
4. What kinds of treatments do you know and/or have used in the past to treat a child with malaria? A child with malaria and pneumonia?
5. How do you prevent malaria in your community?

DEFINITION

Malaria is caused by a parasite that infects the red blood cells of a person. The parasite is transmitted by the bite of a mosquito. If a mosquito carrying the parasite that causes malaria bites a person, the person will develop the disease. This person now has malaria.

Fever alone is considered sufficient to make a diagnosis of malaria in those localities with high risk of transmission. Other common symptoms of malaria include chills, headache, nausea, vomiting, yellow eyes, dark urine, and excessive sweating.

CHECK FOR MALARIA

ASK:

- Has the child felt hot in the last three days?

LOOK:

- Does the child have an axillary temperature 37.5 C or higher?
OR
- Does the child feel hot now?

If **YES** to any of the above questions, then

LOOK:

- NO SIGNS OF:
Ear Infection, Runny Nose, Measles, Coughing,
Any Danger Sign, OR Other Obvious Infection

HOW TO RECOGNIZE MALARIA

■ LOOK: AXILLARY TEMPERATURE

Put thermometer under the arm as close to the shoulder as possible of the child. Put the arm down to the child's side. Be sure that the skin of the child is touching the thermometer and it is not the clothing. Wait three minutes or count to 210. Read thermometer. If temperature is 37.5 C or higher, the child has a fever.

■ LOOK: FEELS HOT

A thermometer is the best way to measure body temperature of a child. If no thermometer is available, feel child's forehead with palm of hand. If forehead is noticeably hot, child has a fever. If you are unsure whether or not the child is hot, ask the mother if the child is hot. If mother states that child is hot, child has a fever.

■ LOOK: FOR OTHER INFECTIONS

If your area (i.e. village) only has a few cases of children with malaria, fever is more likely to be a symptom from another infection. Therefore, if child has fever, it is necessary to rule out other signs of infection before diagnosing the child with malaria. It may therefore save time if the health care worker assesses the child for all other diseases before assessing for malaria.

The signs of infections include stiff neck, ear infection, runny nose, measles, coughing, any danger sign, or any other obvious infection. **Refer to other sections of manual for specific information on diagnosis of the most common infections.**

If child does not have any signs of other infections, child is diagnosed with malaria.

SKILL DEVELOPMENT

Exercise with videos (FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video, in which you will try to identify the child's temperature by thermometer and touch.
2. After determining that the child has a fever, you will identify if the child has malaria or another type of infection.
3. Once you have identified your cases you will write in a piece of paper the number of the child and your classification.

EVALUATION OF MALARIA OF RECORDING FORM

Exercise with recording form

(FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form" Please refer to the illustration below on the 'Low Malarial Region' section of this form.
2. Ask another person to pair with you
3. Go out into the community and visit three houses each, where a child under two years of age is present
4. Ask the mother for permission to evaluate the child for child's general condition, temperature, and absence of other obvious infections. These include the absence of an ear infection, runny nose, cough, measles, danger signs or other obvious infections.

PROBLEM	LOOK / ASK	WHAT TO DO
Check for a Fever →	<ul style="list-style-type: none"> ▪ If thermometer is available, take temperature under the arm of the child. _____ C ▪ Temperature is 37.5 C or higher? YES NO <li style="text-align: center;">OR ▪ If no thermometer is available, does child feel hot? YES NO <li style="text-align: center;">OR ▪ Felt hot in the last three days? YES NO 	If YES to <u>any</u> question, <u>Further Assess:</u> Diagnosis is dependent on whether or not malaria is present where you are. If fever is present, choose the region that you are in for further assessment: <ul style="list-style-type: none"> ▪ HIGH malaria region ▪ LOW malaria region
LOW Malarial Region: Does child have a fever? If YES →	Are there are signs of: <ul style="list-style-type: none"> ▪ Ear Infection? YES NO ▪ Runny Nose? YES NO ▪ Cough? YES NO ▪ Measles? YES NO ▪ Danger Signs? YES NO ▪ Any obvious infections? YES NO 	If NO to <u>all</u> questions, child has <i>Malaria</i> Referral to Health Center <ul style="list-style-type: none"> ▪ Give first dose of antimalarial medication • Give Paracetamol if fever is 38.5C or above
		If YES to <u>any</u> question, <i>Not Malaria</i> Continue assessment with NO malaria region

WHAT TO DO AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

If child has fever with no other signs of infection, give first dose of antimalarial medication. REFER CHILD TO A HEALTH FACILITY.

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem.** For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there. Write:

- The name and age of the child
- The date and time of referral
- Sign detected: temperature 38.5 C or higher, hot to the touch, or history of fevers; record the absence of signs of other infections
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Give first dose of antimalarial medication
- Give Paracetamol if temperature is 38.5 C or higher
- Advise mother to continue breastfeeding

CHAPTER 9: FEVER (Assumption: NO MALARIA)

OBJECTIVES

At the end of the session, the participants will be able to:

- Assess fever in a child
- Distinguish complicated from uncomplicated fever
- Assess for measles
- To use or fill-in the recording form correctly
- Demonstrate skills in reference on sick child to the hospital.

CONTENT

- Signs and symptoms of a fever and measles
- Using the Record Form
- Management of referral of child

METHODS

- Reflection Session
- Mini-lecture
- Field practicum
- Video exercise
- Practice exercise through recording form
- Lecture-discussion

MATERIALS

- Paper
- Writing Utensils
- Recording form
- Referral form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. What do you think the significance is when a child has hot body or fever?
2. What do you think are the main causes of hot body or fever among children under 5 years old in your community?
3. How do you recognize measles (native name) in children?
4. What do you do when a child has hot body or fever in your house?
5. When do you think a child with hot body or fever needs to be treated at the clinic?

DEFINITION

Fever is defined as a body temperature at 37.5 C or higher. If a thermometer is not available to take the temperature, the child is defined as having a fever if they are hot to the touch. If fever is not present, but the mother states that the child has been hot in the last three days, the child has a history of fever. Fever taken by thermometer, touch, or mother's recall is defined as fever. Fever is present when a child is suffering from a disease. The disease causing hot body or fever can be mild or grave.

CHECK FOR FEVER

ASK:

- Has the child felt hot in the last three days?

LOOK:

- Does the child have an auxiliary temperature 37.5 C or higher?
- OR
- Does the child feel hot now?

If YES is answered to any of the above questions, the child has a fever. Additional assessment is needed to decide if child has complicated versus uncomplicated fever or measles.

HOW TO RECOGNIZE FEVER

■ LOOK: AXILLARY TEMPERATURE

Put thermometer under the arm as close to the shoulder as possible of the child. Put the arm down to the child's side. Be sure that the skin of the child is touching the thermometer and it is not the clothing. Wait three minutes. Read thermometer. If temperature is 37.5 C or higher, the child has a fever.

■ LOOK: FEELS HOT

A thermometer is the best way to measure body temperature of a child. If no thermometer is available, feel child's forehead with palm of hand. If forehead is noticeably hot, child has a fever. If you are unsure whether or not the child is hot, ask the mother if the child is hot. If mother states that child is hot, child has a fever.

If child has a fever, assess child for complicated fever and measles:

COMPLICATED FEVER
ASK:
<input type="checkbox"/> How long has child had a fever? _____ Days
<input type="checkbox"/> If more than 7 days, has fever been present each day? YES NO

If child has fever present for 7 days or more, child has complicated fever.

MEASLES
LOOK:
<input type="checkbox"/> Does child have generalized rash with one of the following: cough, runny nose or red eyes? YES NO

If child has fever with generalized rash and either cough, runny nose or red eyes, then the child has measles.

SKILL DEVELOPMENT

Exercise with videos

(FACILITATOR'S INSTRUCTIONS)


1. In this section you will be presented a video, in which you will try to identify the child's temperature by thermometer, touch, and mothers recall.
2. After determining that the child has a fever, you will further assess the child for the duration of the fever and measles.
3. Once you have identified your cases you will write in a piece of paper the number of the child and your classification.

EVALUATION OF MALARIA OF RECORDING FORM

Exercise with recording form

(FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form" Please refer to the next page for an illustration of the 'No Malaria Region or Fever' section of this form.
2. Ask another person to pair with you
3. Go out into the community and visit three houses each, where a child under two years of age is present
4. Ask the mother for permission to evaluate the child for child's temperature, skin, face,

PROBLEM	LOOK / ASK	WHAT TO DO
<p>NO THREAT OF MALARIA</p> <p>FEVER (assumption that there is no malaria)</p> <p>Does child have a fever?</p> <p>If YES, Start Assessment Here </p>	<ul style="list-style-type: none"> • For how long? _____ days • If more than 7 days, has fever been present each day? YES NO 	<p>If YES, child has: <i>Complicated Fever</i> Urgent Referral to Health Center</p> <ul style="list-style-type: none"> • Give small amounts of liquids frequently (extra fluids) • Continue Breast Feeding • Give Paracetamol if temperature is 38.5C or above. <p>If NO, continue to assess child for malaria by moving to the next 'LOOK/ASK' box.</p>
	<ul style="list-style-type: none"> • Generalized Rash AND <u>one</u> of the following: cough, runny nose, red eyes YES NO 	<p>If YES, child has: <i>Measles</i> Urgent Referral to Health Center</p> <ul style="list-style-type: none"> • Give Vitamin A • Give small amounts of liquid frequently OR continue breastfeeding • Give Paracetamol if temperature is 38.5C or higher
	<p>NO SIGNS OF:</p> <ul style="list-style-type: none"> • Fever more than 7 days • No Generalized Rash with cough, runny nose or red eyes 	<p>If NO signs are present, child has: <i>Uncomplicated Fever</i> Refer to Outpatient Health Care</p> <ul style="list-style-type: none"> • Give small amounts of liquid frequently • Continue Breastfeeding • Keep child in well ventilated room • Give sponge bath to lower temperature • Follow-up in 24 hours

WHAT TO DO AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

COMPLICATED FEVER

**If child has fever present for 7 days or more, the child has complicated fever.
URGENT REFERRAL TO HEALTH CENTER**

UNCOMPLICATED FEVER

**If child has fever, but answered NO to questions for complicated fever and measles,
child has uncomplicated fever. REFER TO HEALTH CENTER**

MEASLES

**If child has fever with generalized rash with either a cough, runny nose, or red eyes,
this child has measles. Give Vitamin A. URGENT REFERRAL TO HEALTH
CENTER.**

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem.** For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.

- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there. Write:

- The name and age of the child
- The date and time of referral
- Signs detected: temperature 38.5 C or higher, hot to the touch, or history of fevers; length of fever; rash with cough, runny nose, or red eyes
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Give paracetamol if temperature is 38.5 C or higher
- Give Vitamin A if child has generalized rash with cough, runny nose, or measles.
- Advise mother to continue breastfeeding

CHAPTER 10: EAR INFECTIONS

OBJECTIVES

At the end of the session, the participants will be able to:

- Describe the symptoms of an ear infection
- Explain the differences between an acute and chronic ear infections
- Describe the symptom, ‘tender swelling’ for the diagnosis of mastoiditis
- Demonstrate skills in using the recording form
- Demonstrate skills in referring of child to the hospital.

CONTENT

- Signs and symptoms of ear infections
- Differences between acute ear infection, chronic ear infection, and mastoiditis
- Using the Record Form
- Management of referral of child

METHODS

- Reflection Session
- Mini-lecture
- Field practicum
- Video exercise
- Practice exercise through recording form
- Lecture-discussion

MATERIALS

- Paper
- Writing Utensils
- Recording form
- Referral form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. How do you recognize a child with an ear infection? What are the signs?
2. How do you distinguish between a chronic and an acute ear infection?
3. What do you do when a child has an ear infection in your house?
4. When do you think a child with an ear infection needs to be treated at a clinic?
5. How do you lower the chance of a child getting an ear infection?

DEFINITION

Ear infections in children are often started by a bacterial infection in the nose and throat (upper respiratory system). Many times, the infection travels from there to the ear. Once the infection is located at the ear, thick liquids (pus) collect inside the ear causing inflammation leading to pain and often fever. Inflammation means that the skin of the ear is puffy, red, and irritated.

If the child is not treated, the eardrum may break open leaving a hole in the ear. This allows for pus to leave the ear relieving the child of pain. Due to the hole in the eardrum, the child may suffer from hearing loss. The eardrum may either heal by itself or continue to produce pus. If the pus continues to be present, the child may become deaf in that ear.

In rare cases, the infection can spread from the eardrum to the bone behind the ear. This bone is called the mastoid bone. This causes a severe infection called mastoiditis.

CHECK FOR EAR INFECTION

ASK MOTHER:

Does child have an ear problem?

If No, skip ear infections

If Yes, continue to assess

ASK:

- Is there ear pain?
- Does the child rub his ear frequently?

LOOK:

- Is the child irritable and rubbing an ear(s)?
- Is there liquid in the ear?

HOW TO RECOGNIZE AN EAR INFECTION

■ ASK: EAR PAIN? CHILD BEEN RUBBING EAR(S)?

It is difficult to assess a child who can't verbalize what they are feeling. It is necessary to ask the mother if the child has had any changes in his/her behavior. Ask the mother if the child has been showing signs of having ear pain. These include increased irritability and excessively rubbing an ear(s).

■ LOOK: UNHAPPY CHILD RUBBING EAR(S)

Watch the child throughout the visit to see if child shows any signs of ear pain. These include an unhappy child and rubbing of his/her ear(s).

■ LOOK: LIQUID PRESENT IN EAR

Move child to an area where there is adequate light shining on one of the child's ears. Look into the ear and observe for any fluid. If the fluid is thick and not clear, it is pus. The child has an ear infection. If it is clear like water, ask if the child has been in water. If the child has not been near any water, the child has an ear infection. Check both ears.

HOW TO RECOGNIZE A CHRONIC EAR INFECTION

CHECK FOR A CHRONIC EAR INFECTION

ASK:

- How long has liquid been in the child's ear?
- Has it been longer than 2 weeks?

■ **ASK: HOW LONG HAS LIQUID BEEN IN EAR?**

If child is old enough to talk, ask both the mother and the child how long the liquid has been in the ear. If the child and/or mother are having difficulty remembering when it started since it was a long time ago, find a way to easily measure two weeks. An example: If there is market day once a week, ask if there was fluid present in the ear more than two market days ago. If the liquid was present for 2 weeks or longer, the child has a chronic ear infection. If the liquid was present less than 2 weeks, the child has an acute ear infection.

HOW TO RECOGNIZE MASTOIDITIS

CHECK FOR MASTOIDITIS

FEEL:

- Is tender swelling present behind the ear?

■ **FEEL: TENDER SWELLING BEHIND EARS**

At the same time, put each hand gently behind each ear lobe on the child's head. Compare if there are any differences between the two sides. If the head feels more elevated than the other, there may be swelling behind the elevated ear. Observe if the child feels pain as you touch behind his/her ears.

It is necessary to have both swelling and tenderness on the same side. If the child has swelling and pain behind the same ear during this procedure, the child has mastoiditis. If the child does not have swelling or pain on the same side, the child does not have mastoiditis.

SKILL DEVELOPMENT

Exercise with videos

(FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video, in which you will try to identify if the child has an ear infection.
2. Determine if the child has pain and/or pus in the ear; length of time that pus has been present; tender swelling behind either of the ears
3. Once you have identified your cases you will write in a piece of paper the number of the child and your classification.

EVALUATION OF EAR INFECTION OF RECORDING FORM

Exercise with recording form (FACILITATOR'S MANUAL)

1. During this exercise you will receive and learn to use the "Child Health Recording Form". See Illustration on the Next Page for 'Ear Infection' section of this form.
2. Ask another person to pair with you
3. Go out into the community and visit three houses each, where a child under five years of age is present
4. Ask the mother for permission to evaluate the child for pain and/or pus in the ear; if pus is found, length of time that pus has been present, and presence of tender swelling behind either of the ears

PROBLEM	LOOK / ASK	WHAT TO DO
Ask mother: Does child have ear problem? If YES → If NO, go to ‘Assess for Malnutrition’	<ul style="list-style-type: none"> ▪ Is there ear pain YES NO <li style="text-align: center;">OR ▪ Does child rub ear frequently? YES NO <li style="text-align: center;">OR ▪ Is there liquid in either ear? YES NO 	If YES to <u>any</u> question, Child has <u>Ear Infection</u> . Continue to assess further for ear infections If NO , go to new section on this form (skip ear infection sections)
If Child has Ear Problem Start Assessment Here →	<ul style="list-style-type: none"> ▪ How long has liquid been in ear? _____ days ▪ Has it been more than 2 weeks? YES NO 	If YES , then child has <u>Chronic Ear Infection</u> Refer to Outpatient Health Center <ul style="list-style-type: none"> ▪ Dry ear by wicking ▪ Teach mother to continue dry ear by wicking ▪ If child has pain, give 1 dose of paracetamol If NO , child <u>doesn't</u> have a chronic ear infection, Continue to assess for ear infection
	<ul style="list-style-type: none"> ▪ Is there tender swelling around the ear? (<i>mastoiditis</i>) YES NO 	If YES , then child has <u>Mastoiditis</u> Urgent Referral to Health Center <ul style="list-style-type: none"> ▪ Give first dose of appropriate antibiotic ▪ If child has pain, give 1 dose of paracetamol If NO , Continue to assess for ‘acute’ ear infection
	<ul style="list-style-type: none"> ▪ If there are NO signs of Chronic Ear Infection <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> ▪ No signs of Mastoiditis 	If YES to <u>both</u> questions, then child has: <u>Acute Ear Infection</u> Refer to Health Center <ul style="list-style-type: none"> ▪ Give one dose of appropriate antibiotic ▪ If liquid is present, dry the ear by wicking ▪ If child has pain, give 1 dose of paracetamol

WHAT TO DO AFTER EVALUATION: DEFINE WHAT TO DO AND HOW TO DO A REFERRAL

ACUTE EAR INFECTION

If child has ear pain and/or pus present less than 2 weeks, child has acute ear infection. Give one dose of appropriate antibiotic. If pain is present, give one dose of paracetamol. REFER TO HEALTH FACILITY

If pus is present: dry child's ear by wicking. Go to Chapter 17 for home treatment for ear infections and page 116 for instructions on ear wicking

CHRONIC EAR INFECTION

If child has pus in ear for 2 weeks or longer, child has chronic ear infection. If pain is present, give one dose of paracetamol.

REFER TO HEALTH FACILITY

**Dry child's ear by wicking; teach mother to continue drying child's ear by wicking
Go to Chapter 17 for home treatment for ear infections and page 116 for instructions on ear wicking**

MASTOIDITIS

If child has tender swelling behind either ear, child has mastoiditis. Give one dose of appropriate antibiotic. Give one dose of paracetamol for pain.

URGENT REFERRAL TO HEALTH CENTER.

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

2. Calm the mother's fears and help her resolve any problem. For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there. Write:

- The name and age of the child
- The date and time of referral
- Signs detected: presence of pain and/or pus in the ear; if pus is found, length of time that pus has been present, and presence of tender swelling behind either of the ears
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- If fluid is present, teach mother to dry wick the ear by a demonstration
- Tell mother to avoid water from getting into child's ear when bathing and to avoid swimming.
- Give Paracetamol if pain is present
- Advise mother to continue breastfeeding

CHAPTER 11: MALNUTRITION

OBJECTIVES

After the session, the participants will be able to:

- Describe the symptoms of malnutrition and anemia
- Explain the main causes and effects of malnutrition.
- Demonstrate skills in determining the nutritional status of a child.
- Demonstrate skills in using the recording form.
- Demonstrate skills in assessing child's feeding and counseling mothers

CONTENT

- Signs and symptoms of Malnutrition and Anemia
- Causes and Effects of Malnutrition and Anemia
- Determination of Nutritional Status
- Using the Recording Form
- Assessing Child's Feeding & Counseling Mothers

METHODS

- Reflection sessions
- Sharing
- Practice exercise
- Field practicum.

MATERIALS

- Transparencies
- Kraft paper
- Panel pens
- Video tapes
- Recording form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. What do you understand about malnutrition?
2. Is there a problem of malnutrition in your community?
3. What do you think are the main causes of this problem in your community?
4. What are possible solutions to these causes of malnutrition?
5. Are there any community initiatives being implemented to address this problem?
If yes, could you explain them?
6. What do you think are the immediate and long-term effects of malnutrition to a child?

DEFINITION

The most common nutritional deficiency that affects children is **Protein-Energy Malnutrition (PEM)**. Protein-energy malnutrition develops when the child is not getting enough food to meet his/her nutritional needs. A child who has had frequent illnesses can also develop protein-energy malnutrition. The child's appetite decreases, and the food the child eats is not used efficiently. In other words, the two main causes of protein-energy malnutrition are not enough food and frequent infections such as diarrhea and others; in both the underlying cause is poverty.

The visible effects of malnutrition are seen when a child is skin-and-bones, which is known as marasmus. Another form of malnutrition to be seen is when the child presents swollen feet, which is known as kwashiorkor (both feet need to be swollen). But these, marasmus and kwashiorkor, are the extreme forms of malnutrition. Another way to identify a child who suffers from nutritional deficiency is through the determination of weight for age. The presence of palmar pallor is a sign of anemia. Pallor is unusual paleness of the skin.

Identifying children with malnutrition and treating or referring them can help prevent many severe diseases and death. Some malnutrition cases can be treated at home. Severe cases need referral to clinic or hospital for special feeding, and specific treatment of any other related problem.

HOW TO RECOGNIZE MALNUTRITION

■ LOOK: FOR VISIBLE SEVERE WASTING

A child with severe wasting has marasmus, a form of severe malnutrition. A child has this sign if he is very thin, has no fat, and looks like skin and bones. Some children are thin but do not have severe wasting. To look for severe wasting, remove the child's clothes, and look for the following signs:

- Look to see if the outline of the child's ribs is easily seen
- Look the child from the side to see if the fat of the buttocks is missing
- Severe wasting of the shoulders, arms, buttocks, and thighs

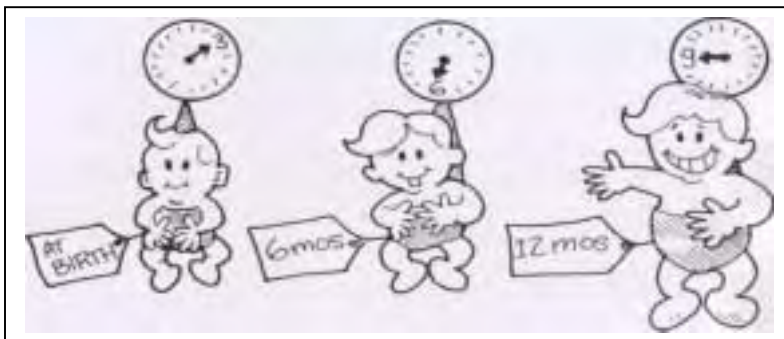
■ LOOK AND FEEL FOR EDEMA OF BOTH FEET

A child with edema of both feet has a severe form of malnutrition known as Kwashiorkor. Edema of both feet is present when after applying pressure for a few seconds on the dorsum of foot, a pit or depression remains after the finger is removed. The depression or pit needs to be present on both feet at the same time. If the depression or pit is presence on only one foot, then this is not a sign of severe malnutrition.

■ DETERMINE WEIGHT FOR AGE

To determine weight for age:

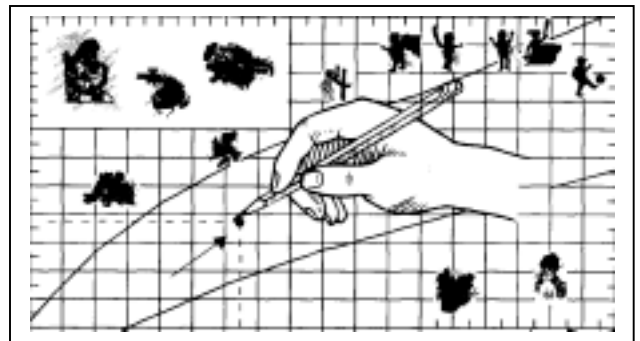
1. Calculate the child's age in months. Write the age of the child in a piece of paper or the child's card
2. Weight Using Salter-like Hanging Scale. Do the following:
 - a. Hang the scale from a secure place like the ceiling beam. You may need a piece of rope to hang the scale at eye level. Ask the mother to undress the child as much as possible.
 - b. Attach a pair of the empty weighing pants to the hook of the scale and adjust the scale to zero.
 - c. Have the mother hold the child. Put your arms through the leg holes of the pants. Grasp the child's feet and pull the legs through the leg holes.
 - d. Attach the strap of the pants to the hook of the scale. **DO NOT CARRY THE CHILD BY THE STRAP ONLY.** Gently lower the child and allow the child to hang freely.



- e. Check the child's position. Make sure the child is hanging freely and not touching anything.
- f. Hold the scale and read the weight to the nearest 0.1 kg. Call out the weight when the child is still and the scale needle is stationary. Even children, who are very active, which causes the needle to wobble greatly, will become still long enough to take a reading. **WAIT FOR THE NEEDLE TO STOP MOVING.**
- g. Immediately record the measurement.
- h. Gently lift the child by the body. Release the strap from the hook of the scale.

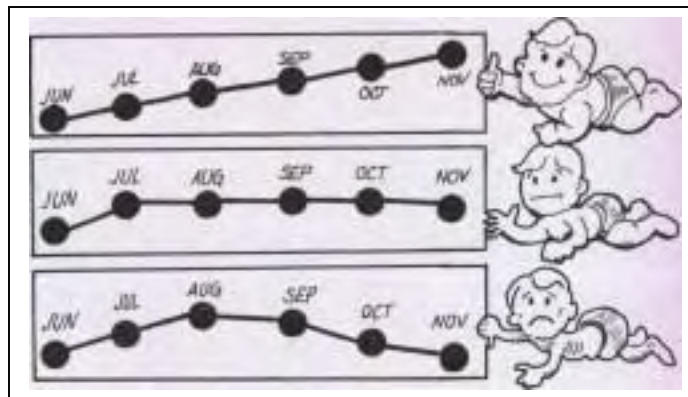
3. Plotting weight on graph: use the weight for age chart to determine weight for age.

- a. Look at the left-hand axis to locate the line that shows the child's weight
- b. Look at the bottom axis of the chart to locate the line that shows the child's age in months.
- c. Find the point on the chart where the line for the child's weight meets the line for the child's age.



4. Decide if the point is *above*, *on*, or *below* the bottom curve.

- a. If the point is *below the bottom curve*, the child is very low weight for age.
- b. If the point is *above or on the bottom curve*, the child is not very low weight for age.



SKILL DEVELOPMENT

Exercise to determine malnutrition in a child (FACILITATOR'S INSTRUCTIONS)

1. In this section you will receive a weight for age graph and an exercise page with several cases (weight plus age)
2. The facilitator will ask to determine the nutritional status of each case
3. Pair with another Community health worker and revise each other nutritional classification
4. Share your findings with the group

Exercise with videos (FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video, in which you will try to identify the child's general nutritional condition by looking for severe wasting and edema of both feet.
2. Once you have identified your cases you will write in a piece of paper the number of the child and your classification.

EVALUATION OF MALNUTRITION: MANAGEMENT OF RECORDING FORM

Exercise with recording form (FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form"
1. Ask a fellow Community Health Worker to pair with you
2. Go out into the community and visit three houses each, where a child under two years of age is present
3. Ask the mother for permission to evaluate the child's nutritional status.

PROBLEM	LOOK / ASK	WHAT TO DO
Assess for Malnutrition →	Does child have: <ul style="list-style-type: none"> ▪ Visible severe wasting YES NO ▪ Edema of both feet YES NO 	If YES to <u>either</u> question, then child has: <u>Severe malnutrition</u> Urgent referral to Health Center
		If NO to <u>both</u> questions, continue to assess for 'malnutrition' that isn't severe.
	<ul style="list-style-type: none"> ▪ Weigh Child: _____ kg ▪ Plot weight on graph. <p style="text-align: center;">↓</p> <p style="text-align: center;">Compare weight of child with last weight measurement</p> <p style="text-align: center;">↓</p> <p style="text-align: center;">Does the child have low weight for age or no weight gain since last measurement? YES NO</p>	If YES , then child has: <u>Malnutrition</u> Refer to Health Center <ul style="list-style-type: none"> ▪ Assess for breastfeeding problems ▪ Refer to guidelines for feeding recommendations.
		If NO , child is not low weight for age. <ul style="list-style-type: none"> ▪ Skip 'Breastfeeding Problems' AND ▪ Go To 'Check for Vitamin A Supplement'

**WHAT TO DO AFTER EVALUATION:
 DEFINE WHAT TO DO AND HOW TO DO A REFERRAL**

If the child is showing visible severe wasting (the child's ribs are easily seen, shoulders/arms/thigh are skin and bone, fat of the buttocks is missing) and or edema of both feet, this child has a severe nutritional problem. There must be no delays in his or her treatment. The child needs to be REFERRED immediately to the nearest clinic or hospital. Before the child leaves for the hospital, give the child a dose of vitamin A.

If the child is NOT showing visible signs of severe wasting and/or edema of both feet; then the child has no signs of severe malnutrition. This child does not need to be referred to a hospital. Assess the child's feeding and counsel the mother about

feeding according to the child's 'growth chart. See Chapter 18 for Feeding Recommendations.

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem.** For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

- 3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there.** Write:

- The name and age of the child
- The date and time of referral

- Sign detected: visible severe wasting and/or edema of both feet
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Advise the mother to continue and increase breastfeeding.

CHAPTER 12: BREASTFEEDING

OBJECTIVES

After the session, the participants will be able to:

- Explain the benefit of choosing breastfeeding over bottle feeding
- Describe the differences between good and bad positioning
- Demonstrate skills in how to express milk
- Demonstrate skills in using the recording form.
- Demonstrate skills that manage the most common breast problems

CONTENT

- Benefits of Breastfeeding over Bottle Feeding
- Common Misconceptions about Breastfeeding
- Assessing Child's Feeding
- Common Problems with Breastfeeding
- Using the Recording Form
- Counseling Mothers

METHODS

- Reflection sessions
- Sharing
- Practice exercise
- Field practicum.

MATERIALS

- Transparencies
- Kraft paper
- Panel pens
- Video tapes
- Recording form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. Why do you think breastfeeding is important?
2. What are common breastfeeding practices among women in your community?
3. What is exclusive breastfeeding? For how long should the mother exclusively Breast-feed her child?
4. Do women prefer to breastfeed or bottle feed in your community?
5. What do you think are the main reasons that mothers choose to breast or bottle-feed?
6. What are some common barriers that keep mothers from breastfeeding?
7. What are possible solutions to these barriers?
8. Do you know of any community women's support groups addressing breastfeeding?

DEFINITION

Breast milk is one of the most important foods to help develop the body and intelligence of the child. The brain of a child is almost completely developed by 2 years of age. During that time, breast milk provides very important nutritious factors (amino acids) that help the development of the child.

Breast milk protects the body of the child against infections. Breast milk is rich in substances that protect the child's body (antibodies), reducing the chance of infection. If the child is breastfed, this protection continues until the child's second birthday.

Breast milk is the only food that a child needs immediately after his/her birth until six months of age. Exclusive breastfeeding means that you only feed the baby with the mother's breast milk and no other liquid or food is given to the child. This is what is recommended during the first six months of the child's life. Breast milk right after the birth of a child is called "colostrum" and is the first type of breast milk after the delivery of the child.

Colostrum is different than other types of milks. It can have a different color, odor or texture. This is normal. This colostrum is very important because it has all the elements needed to feed the newborn. It is rich in substances that protect the child against infections such as antibodies and Vitamin A. While other milks can upset the baby's stomach, colostrum keeps the stomach of the baby healthy.

Colostrum is the only food that a newborn needs during the first three days of life.

Breast milk is the only food that a child needs until 6 months of age

After the child reaches six months of age, complementary foods should be added in order to prevent malnutrition. The mother's breast milk is not able to meet all of the infant's nutritional needs.

At 6 months old, the baby needs complimentary food in addition to breast milk.

Unlike other liquids including water, breast milk is free from contamination, has the right temperature, contains all necessary nutrients, is easily digested, and protects the child against infections. During the first six months of life, exclusively breastfed children have a lower risk of getting diarrhea and pneumonia than children who are not exclusively breastfed.

HOW TO ASSESS BREASTFEEDING

Child has low birth weight

ASK:

Does the child breastfeed? YES NO

If **NO**, do not assess for breastfeeding and continue to next section of the record form.

If **YES**, continue

ASK:

Will child be given an urgent referral to the hospital for another problem? YES NO

If **YES**, do not assess for breastfeeding and continue to next section of the record form.

If **NO**, continue with assessing breastfeeding.

If the low birth weight child isn't breastfeeding, then there is no breastfeeding to assess. Feeding recommendations should have been given previous to assessing breastfeeding.

If **YES**, continue to assess if a breastfeeding problem exists.

If child is to be referred to hospital urgently, do not assess breastfeeding. Simply refer child to hospital.

If child is **not** to be referred to hospital urgently, continue to assess breastfeeding.

Assess Positioning of Baby to Mother when Feeding

Has the infant breastfed in the last hour? If infant has not fed in the previous hour, ask the mother to put infant to the breast. Observe the breastfeed for 4 minutes.

LOOK:

Is the infant able to attach? To check attachment, look for:

■ Chin touching breast	YES	NO
■ Mouth wide open	YES	NO
■ Lower lip turned outward	YES	NO
■ More areola (dark portion of the nipple) above than below the mouth	YES	NO
■ Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?	YES	NO

Part I: How to Recognize Improper Positioning

■ LOOK: CHIN TOUCHING BREAST

Child needs to be facing mother in order to get the maximum amount of breast in his/her mouth. Mother should face child. Child should have his/her chin touching the breast of the mother while breastfeeding.

■ LOOK: MOUTH WIDE OPEN

This is most important when the breasts of a woman are wide and less important with women with thin breasts. It is necessary for the child to have his/her mouth wide open before the child starts to suckle on the breast to ensure that the child will get the maximum amount of breast. The child does not get milk from suckling on the nipple, but from pushing on the chest behind the nipple.

■ LOOK: LOWER LIP TURNED OUTWARD

If lower lip is turned outward while attached to the mother's breast, then the greatest suction of the breast milk is achieved.

■ LOOK: MORE AREOLA ABOVE THAN BELOW THE MOUTH

When looking at the child breastfeeding, look at the dark colored skin around the nipple. Note if more of the dark colored skin or areola is above or below the mouth. Good positioning is when more areola is above the child's mouth when compared to below the child's mouth. Some mothers may not have any of the areola showing when the child breastfeeds, this is okay.

■ **LOOK: INFANT SUCKLING EFFECTIVELY**

A child is getting the most milk when he/she takes long and slow sucks on the mother's breast. This shows good positioning of the child breastfeeding. If the child suckles quickly, then the child is not getting enough milk and is trying to compensate by suckling more.

SKILL DEVELOPMENT

Exercise to determine if there is a child positioned correctly to breastfeed
(FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video, in which you will try if the child is properly positioned to breastfeed.
2. Once you have identified which cases have improperly breastfed and why, you will write in a piece of paper the number of the child and what is wrong with the positioning.
3. Share your findings with the group

EVALUATION OF BREASTFEEDING: MANAGEMENT OF RECORDING FORM

Exercise with recording form
(FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form" See illustration on the next page of the 'Breast Positioning' section of this form.
2. Ask another person to pair with you
3. Go out into the community and visit three houses each, where a child greater than 2 months old breastfeeds.
4. Ask the mother for permission to evaluate a feeding if mother has not fed her child within the last hour. Evaluate the feeding for approximately 4 minutes.

Note: For the purposes of this exercise, the child does not have to be low weight to be assessed.

PROBLEM	LOOK / ASK	WHAT TO DO
<p>Assess for Breast Feeding Problems</p> <p>Is child low weight for age?</p> <p>If YES →</p> <p>If NO, go to 'Check for Vitamin A Supplement'</p>	<ul style="list-style-type: none"> • Does the child breastfeed? YES NO <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Will child be given an urgent referral to the hospital for another problem? YES NO 	<p>If child <u>isn't</u> breastfeeding OR is being referred to the hospital for another problem, do not assess for breastfeeding problems.</p> <p>If child <u>is</u> breastfeeding AND is not being referred to the hospital for another problem, go to Assess Correct Positioning.</p>
<p>Assess Positioning of Baby →</p>	<p>Assess child breastfeeding for 4 minutes:</p> <ul style="list-style-type: none"> • Is chin of baby touching the mother's breast? YES NO • Is babies mouth wide open? YES NO • Is the lower lip of the baby turned outward? YES NO • Is more areola above the mouth rather than below? YES NO • Is the infant suckling effectively? YES NO 	<p style="background-color: #008000; color: white; padding: 5px;">If YES to <u>any</u> question, show mother the correct way to position the baby when breast feeding.</p> <p style="background-color: #008000; color: white; padding: 5px;">Continue with Assessment</p> <p>If NO to <u>all</u> the questions, child is correctly positioned when breastfeeding.</p> <p>Continue to assess for problems with breast(s)</p>

Part II: How to Assess Breast Problems

Assess Breast Problems

ASK:

Does mother complain of problems with breasts? YES NO

If NO, do not assess the mother's breast(s).

If YES, continue to assess mother's breast(s).

ASK / LOOK:

Is there dryness and/or cracking at or around the nipple? YES NO

Is there swelling and/or pain (engorgement) of the breast? YES NO

■ **ASK / LOOK: DRYNESS OR CRACKING OF NIPPLE**

While looking at each breast, ask the mother if she has noticed her breast becoming dry and painful. Note if there is any redness or irritation outside of the areola or dark skinned portion of the nipples. This may be due to incorrect positioning or improperly removing the baby from the breast.

■ **ASK / LOOK: SWELLING OR PAIN OF THE BREAST(S)**

While looking at the breast for swelling, ask the mother if she feels pain because her breasts are so full when her baby starts to feed. This may be due to the baby not feeding at certain times such as the night.

SKILL DEVELOPMENT

Exercise to determine if mother has problem with breast(s)



(FACILITATOR'S INSTRUCTIONS)

1. In this section you will be presented a video, in which you will try to identify the condition of the mother's breast(s).
2. Once you have identified your cases you will write in a piece of paper the number of the child.
3. Share your findings with the group

EVALUATION OF BREASTFEEDING: MANAGEMENT OF RECORDING FORM

Exercise with recording form (FACILITATOR’S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the “Child Health Recording Form”. Refer to the illustration below the box for the ‘Breast Problems’ section of this form.
2. Ask a fellow Community Health Worker to pair with you
3. This session will not go in the community due to the sensitivity of the health problem. Drawings or a model can achieve the same goal. Assess for breast problem(s).

PROBLEM	LOOK / ASK	WHAT TO DO
<p>Assess breast(s):</p> <p>Does mother complain of problem(s) with breast(s)?</p> <p>If YES, </p> <p>If NO, go to the next section of this form.</p> <p></p>	<ul style="list-style-type: none"> • Is there dryness and/or cracking at or around the nipple? YES NO • Is there swelling and/or pain (engorgement) of the breast? YES NO • Is this the 3rd consecutive visit that the mother has had pain and or cracking skin on the breast(s)? YES NO 	<p>If NO drying, cracking, or pain. Go to “Check for Vitamin A Supplement”</p> <p>If NO to: 3rd follow-up visit AND If YES to: dryness / cracking or swelling / pain.</p> <p>See Guidelines for Home Care of Breast Problems</p> <p>If YES to: This is your 3rd visit to the mother for breast problems AND YES, there is continued dryness / cracking or swelling / pain.</p> <p>Urgent Referral to Health Center</p>

WHAT TO DO AFTER EVALUATION: DEFINE WHAT TO DO

IMPROPER POSITIONING OR BREAST PROBLEM

INCORRECT POSITIONING

HOME TREATMENT

If child is not correctly positioned to breastfeed, teach the mother the correct way to position the child. There will not be a referral. A follow-up visit will be made to insure that mother has learned to correctly position her child. See Chapter 19 for home treatment procedures for breastfeeding problems.

BREAST PROBLEM

HOME TREATMENT

If mother has difficulty breastfeeding due to cracking, engorgement and/or painful breast(s). Teach mother how to relieve the pain in the ‘breastfeeding treatment’ chapter. Health care worker will schedule a follow-up visit to visit the mother and child again at their home. See Chapter 19 for home treatment procedures for breastfeeding problems.

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

2. Calm the mother's fears and help her resolve any problem. For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there. Write:

- The name and age of the child
- The date and time of referral
- Sign detected: visible severe wasting and/or edema of both feet
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Advise the mother to continue and increase breastfeeding.

CHAPTER 13: IMMUNIZATION STATUS

OBJECTIVES

After the session, the participants will be able to:

- Discuss the importance of immunization for children before their first birthday.
- Identify the different types of vaccinations needed by children and the recommended age for each.
- Cite the contraindications to immunization.
- Demonstrate skills in filling up the vaccination form and using the “Child Health Recording Form”.
- Give follow-up care

CONTENT

- Importance of Immunization
- Recommended Age for Different Types of Immunization
- Contraindications to Immunization
- Using the Vaccination Card and Child Health Recording Form
- Follow-up care

METHODS

- Reflection sessions
- Sharing
- Demonstration
- Field practicum

MATERIALS

- Transparencies
- Kraft paper
- Vaccination card
- Recording form
- Writing Utensils

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. Why is vaccination important? And what are the diseases, which can be prevented by vaccination?
2. Have you seen a child suffering from a disease, which could have been prevented by vaccination? How did you feel about it?
3. What are possible reasons for not to vaccinate a child?
4. What are possible reasons for some mothers not to have their child vaccinated? Do you think vaccines can be bad for a healthy child? Why?

DEFINITION

Immunization is something that is injected into a child's body that acts to defend the body from specific diseases, such as the flu, polio, or measles.

The first preventive activity you will check for is the immunization status. When you check the child's immunization status you will use the above chart "check for immunizations". Look at the recommended immunization schedule.

Immunizations should be given only when the child is the appropriate age for each dose. If the child receives an immunization when he or she is too young, the child's body will not be able to fight the disease very well. Also, if the child does not receive an immunization as soon as he is old enough, his risk of getting the disease increases.

All children should receive all the recommended immunizations before their first birthday

If the child has not have an immunization at the recommended age, he or she needs to receive that immunization as soon as possible.

A child who is fully immunized is protected from communicable diseases. Immunizations should be given only when the child is at the appropriate age for each dose. If the child receives an immunization when he or she is too young, the child's body will not be able to fight the disease very well. On the other hand, if the child receives the vaccine later than is recommended, his/her body is unprotected against those diseases until the vaccine is received.

If the child has not had an immunization at the recommended age, he or she needs to receive that immunization as soon as possible.

Contraindications to immunizations: there are only three situations at present that are contraindications to immunization

1. Do not give BCG to a child known to have AIDS
2. Do not give DPT 2 or DPT 3 to a child who has had convulsions within three days of the most recent dose
3. Do not give DPT to a child with recurrent convulsions.

HOW TO DECIDE IF A CHILD NEEDS IMMUNIZATION TODAY

Facilitator's Instructions

When you check the child's immunization status, you will use the chart below, "check for immunizations" based on **your national immunization schedule**. Countries may vary in the type and time of vaccinations given. Below is a table of commonly given vaccinations and times. Alter this table according to your countries recommendations.

A table is provided on the child health record form. Go to the age of the child. Look at the vaccinations up to that age. Circle any vaccinations that have not been given.

CHECK FOR IMMUNIZATIONS

Check Vaccinations:

AGE	At Birth	1-½ months	2 ½ months	3 ½ months	9 months
VACCINE	BCG	Polio 1	Polio 2	Polio 3	Measles
		DPT 1	DPT 2	DPT 3	
		HBV 1	HBV 2	HBV 3	

Decide if the child needs immunization:

■ **LOOK:**

At the Child's Age on the Child Health Recording Form

- Ask the Mother if the Child has an Immunization Card (adapt to country norms)

If the mother answers **YES**, ask to see the card:

- Compare the child's immunization record with the recommended immunization schedule
- If the child has an incomplete immunization status, circle the missing vaccination on the health record form. Then refer the child to the nearest clinic with a referral form stating which vaccination(s) are missing.
- If the child has a complete immunization status, please congratulate the mother.

If the mother answers **NO**, please refer the child to the nearest clinic and fill a referral form.

SKILL DEVELOPMENT

Exercise with vaccination card

(FACILITATOR'S INSTRUCTIONS)

1. In this section you will receive an empty vaccination card
2. The facilitator will ask you to fill up the vaccination card according to a case example
3. Pair with another Community health worker and revise each other vaccination card
4. Share your findings with the group

EVALUATION OF IMMUNIZATION STATUS: MANAGEMENT OF RECORDING FORM

Exercise with recording form (FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form" Refer to the illustration below of the 'Vaccination' section of this form.
2. Ask a fellow Community Health Worker to pair with you
3. Go out into the community and visit three houses each, where a child under two years of age is present
4. Ask the mother for permission to evaluate the child's immunization status.

PROBLEM	LOOK / ASK	WHAT TO DO																								
Check for Vaccinations: →	<p>In the table below, go to the age of the child. Check if the vaccines up to this age were given. If something has not been given, circle the vaccine.</p> <table border="1"> <thead> <tr> <th>AGE</th> <th>At Birth</th> <th>1 ½ Months</th> <th>2 ½ Months</th> <th>3 ½ Months</th> <th>9 Months</th> </tr> </thead> <tbody> <tr> <td>VACCINE</td> <td>BCG</td> <td>Polio 1</td> <td>Polio 2</td> <td>Polio 3</td> <td>Measles</td> </tr> <tr> <td></td> <td></td> <td>DPT 1</td> <td>DPT 2</td> <td>DPT 3</td> <td></td> </tr> <tr> <td></td> <td></td> <td>HBV 1</td> <td>HBV 2</td> <td>HBV 3</td> <td></td> </tr> </tbody> </table> <p>*Note, this table will be adapted to country specifics of vaccination types and time given</p>	AGE	At Birth	1 ½ Months	2 ½ Months	3 ½ Months	9 Months	VACCINE	BCG	Polio 1	Polio 2	Polio 3	Measles			DPT 1	DPT 2	DPT 3				HBV 1	HBV 2	HBV 3		<p>If child has <u>all</u> vaccinations for age, then child has:</p> <p><u>Complete schedule</u></p> <ul style="list-style-type: none"> ▪ Congratulate caretaker ▪ Advise on future immunizations <p>If child has not received a vaccination for his/her age, then child has:</p> <p><u>Incomplete schedule</u></p> <ul style="list-style-type: none"> ▪ Inform caretaker on advantages of vaccinations <p>Refer for vaccination to nearest health center</p>
AGE	At Birth	1 ½ Months	2 ½ Months	3 ½ Months	9 Months																					
VACCINE	BCG	Polio 1	Polio 2	Polio 3	Measles																					
		DPT 1	DPT 2	DPT 3																						
		HBV 1	HBV 2	HBV 3																						

REFER THE CHILD

Do the following four steps to refer a child to hospital:

- 1. Explain to the mother or caretaker the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why.**

Possible reasons are:

- She thinks that hospitals are places where people often die, and she fears that her child will die there too.
- She does not think that the hospital will help her child.
- She cannot leave home and tend to her child during a hospital stay because there is no one to take care of her other children, or she is needed for farming, or she may lose a job.
- She does not have money to pay for transportation, hospital bills, medicines, or food for herself during the hospital stay.

- 2. Calm the mother's fears and help her resolve any problem.** For example:

- If the mother fears that her child will die at the hospital, reassure her that the hospital has physicians, supplies, and equipment that can help cure her child.
- Explain what will happen at the hospital and how that will help her child.
- If the mother needs help at home while she is at the hospital, ask questions and make suggestions about who could help. For example, ask whether her husband, sister or mother could help with the other children or with meals while she is away.
- Discuss with the mother how she can travel to the hospital. Help arrange transportation if necessary.
- You may not be able to help the mother solve her problems and be sure that she goes to the hospital. However, it is important to do everything you can to help.

- 3. Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there.** Write:

- The name and age of the child
- The date and time of referral
- Sign detected: visible severe wasting and/or edema of both feet
- Treatment that you have given
- Your name and the name of the municipality

4. Give the mother any supplies and instructions needed to care for her child on the way to the hospital

- If the hospital is far, give the mother additional supplies of any drug you may be using for the case and tell her when to give them during the trip. If you think the mother will not actually go to the hospital, give her the full course of treatment, and teach her how to give them.
- Tell the mother how to keep the child warm during the trip.
- Advise the mother to continue and increase breastfeeding.

CHAPTER 14: VITAMIN A SUPPLEMENTATION

OBJECTIVES

After the session, the participants will be able to:

- Explain the importance of Vitamin A in the body.
- Identify the most common food sources of Vitamin A.
- Cite the effects of Vitamin A deficiency.
- Recognize the importance of vitamin A supplementation among children between the ages of 6 months to 5 years.
- Demonstrate skills in using the Child Health Recording Form

CONTENT

- Importance of Vitamin A
- Sources of Vitamin A
- Effects of Vitamin A deficiency
- Using the Child Health Recording Form

METHODS

- Reflection Sessions
- Sharing
- Practice exercise
- Field practicum

MATERIALS

- Paper
- Writing Utensils
- Transparencies
(or other form of teaching material)
- Recording form

REFLECTION

Facilitator Instructions

Divide the participants into small groups. Ask each group to reflect on the following questions. Then share reflections with group. The facilitator should know how much time is allotted for each activity / section in order to ensure that there is enough time for all the activities planned for the day.

1. In your community what are the most common types of food given to children?
2. Do adults and children eat at the same time? Same amount and type of food?
3. What type of foods do you think are rich in vitamin A? Are they available in your community?
4. What are the advantages of consuming vitamin A?
5. What do you think are the main consequences of not consuming vitamin A?

DEFINITION

Vitamin A promotes growth in children and reduces the severity of infectious illnesses, especially measles and chronic diarrhoea. When there is not enough Vitamin A in the body to carry out the body's regular functions, it's called Vitamin A deficiency. Vitamin A deficiency causes poor growth, lowered resistance to infections, night blindness (local name), permanent blindness and death. To prevent vitamin A deficiency, children need breast milk, eggs, yellow fruits (i.e. mango, papaya), or dark green leafy vegetables. Local foods should be discussed for each of these.

Vitamin A supplementation (when given as capsules or syrup) among children between the ages of 6 month and 5 years reduces the chances of dying from measles, diarrhea, and the overall mortality.

One high-dose supplement of vitamin A is sufficient to fully increase a child's store of vitamin A for a period of 6 months. This is why supplementation of vitamin A is recommended every 6 months.

HOW TO DECIDE IF A CHILD NEEDS VITAMIN A SUPPLEMENTATION

- **LOOK:**

At the Child's Age on the Child Health Recording Form

- Ask the Mother if the Child has Received Vitamin A in the Last 6 Months.

If the mother answers **YES:**

- And the child is older than 6 months please congratulate the mother.

If the mother answers NO:

- **And the child is older than 6 months, inform the mother about the benefits of vitamin A for the health of her child, the food sources from where vitamin A can be obtained, and relevant activities in the community**

SKILL DEVELOPMENT

Vitamin A protocols			
AGE	under 6 months	6-11 months	1-5 years
DOSE	not recommended	100,000 IU*	200,000 IU*
Vitamin A is given orally, every 4 to 6 months			
* The dose amount can be changed to # of capsules depending upon national protocols			

EVALUATION OF IMMUNIZATION STATUS: MANAGEMENT OF RECORDING FORM

Exercise with recording form (FACILITATOR'S INSTRUCTIONS)

1. During this exercise you will receive and learn to use the "Child Health Recording Form"
2. Ask a fellow Community Health Worker to pair with you
3. Go out into the community and visit three houses each, where a child under two years of age is present
4. Ask the mother for permission to evaluate the child's vitamin A status.

PROBLEM	LOOK / ASK	WHAT TO DO
Check for Vitamin A Supplement (Children 6 months old or older ONLY)	<ul style="list-style-type: none"> • Has child received Vitamin A within the last six months? YES NO 	If NO, child <i>Has Not Received Vitamin A</i> Home Care includes: <ul style="list-style-type: none"> ▪ Give Vitamin A capsule ▪ Inform caretakers on the importance of Vitamin A

PART II: CONTENTS

Page	Section 2: HOME CARE / FOLLOW-UP GUIDELINES
107	Chapter 15: Diarrhoeal Treatment
115	Chapter 16: Malaria Treatment
117	Chapter 17: Ear Infection Treatment
121	Chapter 18: Feeding Recommendations
125	Chapter 19: Breastfeeding Recommendations
131	Chapter 20: Follow-Up Guidelines
134	Annex A: Prioritize Problems: If Child has more than one problem
135	Annex B: How to teach mother to give oral drugs
140	Annex C: Dosages of Oral Drugs
145	Bibliography for C-IMCI Manual Sections I & II

CHAPTER 15: TREATMENT FOR DIARRHEA

SUMMARY: TREATMENT COURSE FOR DIARRHEA			
	NO DEHYDRATION	MILD DEHYDRATION	SEVERE DEHYDRATION
Increase fluids	YES	YES	YES
Continue Feeding	YES	YES	YES
Give Rehydration Solution	NO	YES	YES
Teach Mother How to Make Rehydration Fluid	YES	YES	NO
Counsel Caretaker on Appropriate Hygiene Behaviors	YES	NO	NO
Referral	NO Home Care	YES Outpatient	YES Urgent Referral to Hospital

Choose One Treatment Course

- I. Diarrhea with No Dehydration
- II. Diarrhea with Mild Dehydration
- III. Diarrhea with Severe Dehydration
- IV. Diarrhea with Blood (Dysentery)
- V. PROCEDURES

I. DIARRHEA WITH NO DEHYDRATION

- HOME CARE
(See Procedure 1 for details of home care; the rules are a summary)

Rules of Home Care Treatment:

1. Give Extra Fluid
 2. Continue Feeding
 3. When to go to a Health Facility
 4. Promote Proper Hygiene Behaviors
- FOLLOW-UP VISIT for the Health Care Worker
AFTER 5 DAYS: check for presence and amount of diarrhea
ASK: Has the diarrhea stopped?
How many loose stools is the child having per day?

Treatment:

- If diarrhea has not stopped (child is still having 3 or more loose stools per day). Then, Reassess for dehydration. If no dehydration is present:
(See **Procedures 3 and 4**)
 1. Give Rehydration Fluid to child
 2. Teach Mother how to Make and Give Rehydration Fluid to the child
 3. Refer child to an outpatient clinic
- If the diarrhea has stopped (less than 3 loose stools per day), tell the mother to follow the usual feeding recommendations for the child's age. Go to the chapter 18, 'Feeding Recommendations' for more information.

II. DIARRHEA WITH MILD DEHYDRATION

- HOME CARE (See Procedure 1)
- REHYDRATION
- Teach mother how to make and give rehydration fluid to her child. See **Procedures 3, 4, and 5** for step-by-step instructions.
- REFER FOR OUTPATIENT CARE

III. DIARRHEA WITH SEVERE DEHYDRATION

- REHYDRATION
- Give child rehydration fluid. See **Procedure 4** on how to rehydrate.
- REFER TO HOSPITAL OR NEAREST CLINIC IMMEDIATELY

IV. DIARRHEA WITH BLOOD (Dysentery)

- HOME CARE (See **Procedure 1**)
- REFER TO HOSPITAL OR NEAREST CLINIC IMMEDIATELY

V. PROCEDURES

Procedure 1: Home Care For Diarrhea

Rule 1: Give Extra Fluids

- Tell mother or caretaker to give as much fluid as the child will take. The purpose of giving extra fluids is to replace the fluid losses during a diarrheic episode and thus prevent dehydration. If the child is exclusively breastfed, it is important to increase the frequency and time at each breastfeeding event. See procedures 3, 4, and 6 for explanations on how to give extra fluids and the appropriate quantity to prevent dehydration according to age of the child.

Examples of appropriate extra fluids to give are: soups, vegetable soup, rice water, yogurt drinks, clean water, bean soup, passion fruit juice, juice without sugar, etc. Recommend any other fluids specified by the national program for the control of diarrheal diseases.

Rule 2: Continue feeding the child who has diarrhea to prevent malnutrition

- If the child is exclusively breastfeeding, increase the frequency and time at each breastfeeding session. If the child is already consuming solid food, continue to give these foods and in addition, give the child food more frequently.

Recommend any other solid food specified by the national program for the control of diarrheal diseases.

Rule 3: When to go to the health facility

- Tell the caretaker to bring the child to a clinic or hospital immediately if the child presents any of the following signs:
 - Not able to drink or breastfeed
 - Becomes sicker
 - Blood in the stool
 - Repeated vomiting

Rule 4: Promote proper hygiene behaviors

- The CHW should counsel the caretaker on improvement of three key household hygiene behaviors.
 - Feces Disposal
 - Handwashing
 - Proper Storage of Water and Food

Procedure 2: Counsel Caretakers on Proper Hygiene Behaviors

Diarrhea Prevention

The CHW should work with the household on prevention of diarrhea through improvement of three key household hygiene behaviors (Feces Disposal / Handwashing / Proper Storage of Water and Food). The CHW shall observe the household, ask questions and then discuss with demonstrations to the household on how diarrhea can be prevented.

1. What do you think are the main causes of diarrhea in your community? (Ask, Discuss)
2. What can be done in a household and this community to prevent diarrhea? (Ask, Discuss)

* It is important that the mother or caretaker understand how diarrhea is caused and transmitted and why the three key hygiene behaviors are so important to prevent the family (especially the young children) from getting diarrhea. It is important to explain how each of the three key hygiene behaviors – Feces disposal, Handwashing, and Water and Food Storage - prevent diarrhea transmission

Feces Disposal

(KEY BEHAVIOR HYGIENE PROMOTION #1)

Assess Households Feces Disposal Knowledge & Practices

1. Why should we dispose of all human feces in a latrine or toilet? (Ask, Discuss)
2. Is there evidence of proper disposal of all feces? (Ask/Look/Discuss)
 - Is there a latrine or toilet? (Ask/Look)
 - Is it close in location to the house? (Ask/Look)
 - Is the latrine or toilet used? (Ask/Look/Discuss)
 - Is the latrine or toilet clean? well maintained? (Look/Discuss)
 - Is the latrine or toilet used by children? (Ask / Look)
 - What happens to the feces of the little children (under five years old)? (Ask/Look/Discuss)
 - Are there feces in the house or in the yard or around the latrine on the ground? (Look/Discuss)

Counsel Mother on Feces Disposal

The latrine or toilet should not be so far from the house or so hard to get to that it will not be used. A latrine that is being used will not have things stored in it. There will be signs that people use it such as a door that opens and closes, paper or material for cleaning, and probably some smell.

A latrine or toilet that is being well maintained will be clean inside – There should be no feces or urine on the floor. The door should work easily and there should be a lid that

should be kept shut. There should be paper or other material for cleaning. The family should not dispose of garbage in the latrine.

All of the feces of little children must be collected and disposed of in the latrine or toilet.

Handwashing

(KEY BEHAVIOR HYGIENE PROMOTION #2)

Assess Households Handwashing Knowledge & Practices

- Why is it important to wash our hands? (Ask, Discuss)
- Does the family have the items needed for proper handwashing? (Ask /Look)
- Does the family have a place where handwashing takes place? (Ask / Look)
- Does the mother or caretaker wash their hands at the key times? (Ask / Look)
- Does the mother or caretaker wash their hands using the proper technique? (Ask /Look/Demonstrate)

Counsel Mother on Handwashing

The family should have water, soap or ash, and a clean towel that is used only for drying the hands.

There should be a spot where the water, soap or ash, and a dry towel are all kept, where family members wash their hands. Water that is used to wash and rinse hands should not create a nuisance in the house or the yard.

There are five times that the hands should be washed:

1. After going to the bathroom;
2. After cleaning a child's bottom;
3. Before preparing any food;
4. Before eating any food;
5. Before feeding children

Mother or caretaker should be able to demonstrate how to properly wash hands.

- Uses water
- Uses soap or ash
- Washes both hands.
- Rubs hands together at least three times.
- Dries hands with a clean towel (that is only used to dry hands and nothing else), or in the air. They should not dry their hands on dirty rags or on their own pants, skirts or shirts.

Proper Storage of Water and Food

(KEY BEHAVIOR HYGIENE PROMOTION #3)

Assess Households Storage of Water and Food Knowledge & Practices

- Why is it important to properly store water and food in the house? (Ask / Discuss)
- Is drinking water properly stored? (Look / Discuss)

- Is food stored properly? (Look / Ask / Discuss)

Counsel Caretaker on Proper Storage of Water and Food

Water should be stored in containers that have narrow necks that make it difficult for flies, dirt, and children’s fingers to get to the water.

The container should be covered.

The container and the cover should be kept clean.

Water should be poured from these containers – nothing should be put into the container to get water.

After it is prepared, food should be eaten as soon as possible. Storage of food should follow the following principles:

- The food should be kept in a clean well-covered container
- The food should be served only with a clean serving spoon – not hands
- Children should not be able to eat from the storage container
- The best thing is to re-heat this food before serving it again

Procedure 3: How to Make Oral Rehydration Solution



- Wash your hands with soap and clean water
- Take a half-liter container, and clean it. (A soda bottle is approximately 1 Liter.)
- Put a half-liter of water into the container.
- Then put a “pinch” of salt (using three fingers to make a “pinch”)
- Put a “fistful” of sugar.
- Stir the water with a clean spoon so that there is no remaining sediment.
- Taste the prepared solution. Correctly prepared solution tastes like tears.
- The solution can be left at room temperature for up to 6 hours. However, if the solution has been left at room temperature for longer than this, it should be discarded and new home-based ORS should be prepared.

Procedure 4: How to Give Oral Rehydration Solution

How to Give Home Based Oral Rehydration Solution

- If the child is under two years of age, give a teaspoonful every 1-2 minute.
- If the child is two years or older, give frequent sips from a cup.

- If the child vomits, wait ten minutes. Then give the solution more slowly (for example, a spoonful every 2-3 minutes).
- Keep giving the solution until diarrhea stops.

Teaching clues:

- Tell the mother or caretaker how important this procedure is to help the child to get better and prevent dehydration. Assure the mother or caretaker that this disease will not need the use of expensive antibiotics or anti-diarrheic.
- Ask checking questions:
 - “What materials would you use to prepare the home-based oral rehydration solution at home?”
 - “How many times per day will you provide liquids during a diarrhea episode?”
 - “What else will you do, would you give expensive drugs, such as antibiotics?”

Procedure 5: For the Health Care Worker, Aggressive Treatment with Oral Rehydration Fluid

Give ORS over 4-hour period

Rehydrate Child over 4 hours with Oral Rehydration Fluid				
AGE	Up to 4 months	4 months up to 12 months	12 months up to 2 years old	2 years old up to 5 years old
WEIGHT	Less than 6 kg	6 - <10 kg	10 - <12 kg	12 – 19 kg
Amount of pre-packaged ORT to give over a 4-Hour Period of Time (In Milliliters or ml)	200 – 400 ml	400 – 700 ml	700 – 900 ml	900 – 1400 ml

* Note: If child wants more fluids, give him/her more.

Procedure 6: Teach Mother how much fluid to give

FLUID REPLACEMENT	
AGE	Amount of fluid to give in addition to the usual fluid intake
Up to 2 years old	50 to 100 ml after each loose stool
2 years old or more	100 to 200 ml after each loose stool

CHAPTER 16: TREATMENT FOR MALARIA

SUMMARY

If Child has MALARIA,

1. Determine if child also has pneumonia
 - If child has malaria and pneumonia, the anti-malarial medication will differ
2. Look at '*Teach the Mother to Give Oral Drugs at Home*' in order to determine what type of medication to give the child.
3. Weigh Child. If there is no method to weigh the child, get the child's age.
4. Teach mother and treat child at the same time. Refer to '*Teach the mother to Give Oral Drugs at Home*' in order to counsel and teach mother on giving oral drugs to their child.
5. Teach mother how to prevent malaria in the future. *See below.*

Communicate verbally and in-writing when you will be returning for a follow-up visit. *See below.*

OUTLINE

I. Teach mother and Medicate Child at the same time

See 'Teach the mother to give oral drugs at home' Guidelines.

II. Other Treatment than Medication

- Bring down the child's temperature by washing child with a wet cloth or sponge.
- Offer more fluids. See 'Fluid Recommendations' page
- Put the child in a well ventilated room
- Ventilated means the room is not closed, air can move in and out through an open window and/or door. This helps cool down the room, which cools down the child.
- Prevention
 - Put clothing on child that covers the majority of the body (i.e. long sleeve shirts, pants, shoes, socks, etc.) during times that mosquito's are higher in numbers. Examples are in the early morning and evening, when sitting in the shade.
 - Mosquito Nets: If mosquito nets are available in your area, teach the mother that a child prevents getting infected with malaria at nighttime by sleeping under a treated mosquito net.

III. Follow-Up Visit for the Health Care Worker

- AFTER 2 DAYS, This is the 2nd Visit to the Client:

LOOK / ASK: If thermometer is available, take child's temperature. If thermometer is not available, feel child's head. Decide if child's temperature has decreased (or feels less hot).

- If fever is below 38.5 C or the child's head is less hot since the last visit, congratulate the mother for giving the anti-malarial medication. Remind the mother that the illness will come back if she does not use continue to use the anti-malarial medication until it is gone.
- If fever is 38.5 C or above OR the child's head feels hot:
Do a full assessment – redo the record form for all diseases. Skip the 'Malarial Region' section on the recording form and assess using 'Fever; No Malarial Region'. You will be assessing other illnesses besides malaria that may cause the fever.

Treatment:

- If child has a general danger sign, treat as 'Very Severe Febrile Disease'. **Refer urgently to Hospital.**
- If child has any cause of fever other than malaria, provide treatment for that cause. Go to that section of the manual.
- If malaria is the only apparent cause of fever, **Treat with second-line oral anti-malarial.** Continue with the same teaching as the first visit. Refer to the beginning of this section for summary on how to treat malaria and follow it again.
- If no second-line anti-malarial medication is available, **REFER TO HOSPITAL.**

Tell mother that you will return in five days to reassess

- AFTER 7 DAYS: This is the 3rd visit to mother and child:

If fever has been present at the second follow-up visit OR fever is present for 7 days, refer to Hospital

CHAPTER 17: TREATMENT FOR EAR INFECTIONS

SUMMARY: TREATMENT COURSE FOR EAR INFECTIONS			
	MASTOIDITIS	ACUTE EAR INFECTION	CHRONIC EAR INFECTIONS
Give One Dose of Antibiotic	YES	YES	NO
Teach Mother How to Give Antibiotic	NO Immediate Referral To Hospital	YES	NO
If pus is present, Teach Mother to dry ear by wicking	NO Immediate Referral To Hospital	YES	YES
Teach mother how to prevent future ear infections	OPTIONAL Main concern is Immediate Referral To Hospital	YES	YES
Give a follow-up date	NO Refer to hospital	YES	YES
Referral	YES Urgent Referral to Hospital	*Optional Refer to Health Center	*Optional Refer to Health Center

* Consult national guidelines on whether or not to refer to health center for acute and/or chronic ear infection

Choose One Treatment Course

- I. Mastoiditis
- II. Acute Ear Infection
- III. Chronic Ear Infection

I. MASTOIDITIS TREATMENT

- Give First Dose of Appropriate Antibiotic; Refer to MOH recommendations for dose and type of antibiotic to give.
- **Refer child immediately to the hospital**
- If child has ear pain, give one dose of Paracetamol. Refer to '*Teach the Mother to Give Oral Drugs at Home*', Section III for correct dosage for child's weight or age.
- If time permits and mother is not overwhelmed, advise mother to avoid water from entering child's ear.

Ear Procedure 1: Preventing Further Ear Infection

- Avoid swimming altogether
- Wet sponge or cloth and wash child. Do not put child in water to bath. Avoid water from entering the infected ear(s).

II. ACUTE EAR INFECTIONS

- Give First Dose of Appropriate Antibiotic.
- **Urgently Refer Child to Hospital or Nearest Clinic**
- If child has ear pain, give one dose of Paracetamol. Refer to 'Teach the Mother to Give Oral Drugs at Home' (Annex B), Section III for correct dosage for child's weight or age.
- If time permits and the mother is not overwhelmed, advise the mother to avoid water from entering the child's ear.
- If pus is present, Teach mother how to dry the ear by wicking. See Ear Procedure 2 on the following page. Follow Procedure.
- **Follow-Up**

1. AFTER 5 DAYS: Give 2nd Visit to Mother and Child

Reassess ear problem. Refer back to Chapter 10 to Assess for Ear Problem.

Measure the child's temperature.

Treatment:

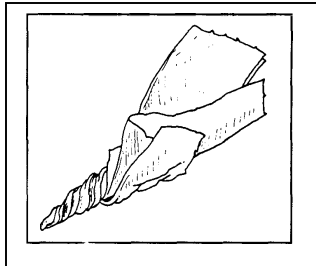
- If there is tender swelling behind the ear or child has a high fever (38.5 C or above), refer Urgently to the Hospital.
- Acute ear infection: if ear pain or discharge persists, treat with 5 or more days of the same antibiotic. Continue wicking to dry the ear. Follow-up in 5 days.

If no ear pain or discharge, praise the mother for her careful treatment. If she has not yet finished the 5 days of antibiotics, tell her to use all of it before stopping.

2. FIVE DAYS AFTER SECOND VISIT: Revisit Mother and Child for 3rd visit

- Repeat the same assessment as the first follow-up visit. Do not give more antibiotics if ear is still not healed. Treat as a Chronic Ear Infection.

Ear Procedure 2: Dry the ear by wicking



1. Use clean, absorbent cotton cloth or soft strong tissue paper for making a wick. Do **not** use a cotton-tipped applicator, a stick or flimsy paper that will fall apart in the ear.
2. Place the wick in the child's ear until the wick is wet.
3. Replace the wet wick with a clean one.
4. Repeat these steps until the wick stays dry. Then the ear is dry

5. Wick the ear three times per day.
6. Use this treatment **for as many days as it takes** until the wick no longer gets wet when put in the ear and no pus drains from the ear.
7. Do **not** place anything (oil, fluid, or other substance) in the ear between wicking treatments.
8. Do **not** allow the child to go swimming. No water should get in the ear.



TEACHING METHOD:

- Observe the mother as she practices the procedure. Give feedback.
- Ask checking questions:
 - “What materials would you use to make the wick at home?”
 - “How many times per day will you dry the ear with a wick?”
 - “What else will you put in your child's ear?”
- If the mother thinks she will have problems wicking the ear, help her solve the problems. (Ask her what she thinks the problem(s) is. Encourage her to demonstrate how to wick the child's ear.)

III. CHRONIC EAR INFECTION

- If child has ear pain, give one dose of Paracetamol. Refer to '*Teach the Mother to Give Oral Drugs at Home*' (Annex B), Section III for correct dosage for child's weight or age.
- Teach mother how to dry the ear by wicking. Go to Ear Procedure 2 under Acute Ear Infections. Follow Procedure.
- Go to Ear Procedure 1. Teach mother how to prevent ear infection from getting worse.
- **Follow-Up**

AFTER 5 DAYS: Reassess ear problem. Measure the child's temperature.

Treatment:

- **If there is tender swelling behind the ear or high fever (38.5 C or above), refer Urgently to the Hospital.**
- Chronic ear infection: Check that the mother is wicking the ear correctly. Encourage her to continue.

If no ear pain or discharge, praise the mother for her careful treatment.

CHAPTER 18: FEEDING RECOMMENDATIONS

I. Eating Properly

* Assess child's feeding. Ask questions about the child's usual feeding and feeding during this illness (See questions below). Compare the mother's answers to FEEDING RECOMMENDATIONS, which are given in the table on the following page.

- ASK: 1. Do you breastfeed your child?
 If yes, continue to the next question.
 If no, go to question 4.
2. How many times a day?
3. Do you also breastfeed during the night?
4. Does your child take any other food or fluids?
 If yes, continue to the next question
 If no, go to question 9.
5. What food or fluids?
6. How many times a day?
7. What do you use to feed the child?
8. If the child is very low weight for his age: How large are the serving? Does the child receive his own servings? Who feeds the child and how?
9. During this illness, has the child's feeding changed? If yes, how?

II. Feeding Recommendations for Healthy and Sick Children

*NOTE: This table needs to be adapted to your specific region because food types will differ.

FEEDING RECOMMENDATIONS

Up to 6 months of Age	6 Months up to 12 Months	12 Months up to 2 years	2 Years & Older
<p>Breastfeed as often as the child wants, day and night, at least 8 times in 24 hours</p> <p>Do not give other food or fluids</p>	<p>Child should be breastfed as often as the child wants at least 6 times per day.</p> <p>Add complimentary foods to the diet. (Examples of this include softened potato, rice, beans, and vegetables)</p> <p>Give at least 6 tablespoons per serving of family food.</p> <p>3 times per day if breastfed OR 5 times per day if not breastfed</p>	<p>Breastfeed as often as the child wants.</p> <p>Give at least 6 tablespoons per serving of family food 5 times per day.</p>	<p>Give family foods at least 3 times per day. Also, twice daily, give nutritious food between meals, such as:</p> <p>_____</p>

III. Feeding Problems

*If the child is not being fed as described in section 1 under 'Feeding Recommendations', counsel the mother accordingly. In addition to the Feeding Recommendations:

- **If the mother reports difficulty with breastfeeding, assess breastfeeding.**
As needed, show mother the correct positioning and attachment for breastfeeding. See Chapter 10 on breastfeeding for guidance.
- **If the child is less than 6 months old and is taking other milk or foods:**
 - Build the mothers confidence that she can produce all the breast milk that the child needs
 - Suggest giving more frequent, longer breastfeeds, day and night, and gradually reducing other milk and foods.
 - If the mother is away from the child due to work, etc. suggest that the mother expresses milk to leave for the baby. (See Procedure 6 on page 126 for guidance on expressing and storing milk for your baby)
- **If other milk (not breast milk) needs to be continued, counsel the mother:**
 - Breastfeed as much as possible, including at night.
 - Make sure that other milk is a locally appropriate breast milk substitute, such as cows' milk.
 - Make sure other milk is correctly and hygienically prepared and given in adequate amounts.
 - Finish prepared milk within an hour
- **If the mother is using a bottle to feed the child:**
 - Recommend substituting a cup for the bottle
 - Show the mother how to feed the child with a cup
- **Children greater than 6 months old or started on food should be advised to increase watery foods**
 - Give examples of appropriate foods from your region. Philippine example: vegetable soup, rice water, yogurt drinks, clean water, bean soup, passion fruit juice, juice without sugar
- **If the child is not being fed actively, counsel the mother to:**
 - Sit with the child and encourage eating
 - Give the child an adequate serving in a separate plate or bowl
- **If the child is not feeding well during illness, counsel the mother to:**
 - Breastfeed more frequently and longer if possible
 - Use soft, varied, appetizing, favorite foods to encourage the child to eat.
 - Clear a blocked nose if it interferes with feeding.
 - Expect that appetite will improve as child gets better
- **Follow-up any feeding problems in 5 days**

III. PROCEDURES

Procedure 1: How To Feed Child With Cup or Spoon

How to feed a young child with a cup or spoon

(First clean the cup and spoon with soap and water if boiling is not possible.)



1. Hold the young child upright or almost upright on your lap.
2. Hold a spoon or small cup of milk to the young child's mouth.
3. Tip the cup or spoon so the milk just reaches the child's lips. If you are using a cup, rest it lightly on the child's lip and let the edges of the cup touch the baby's upper lip.
4. Do not pour the milk into the baby's mouth. Let the baby take the milk into its mouth from the cup or spoon. For very small or ill children / babies, it may be better to use a spoon.

Procedure 2: How to Burp a Baby After Breastfeeding

Helping the baby burp (wind)



When some babies suckle, they swallow air, which can make them uncomfortable.

- You can help a baby bring this air up if you hold the baby on your shoulder or chest (See Picture)
- OR**
- Rub the child's back or rub its back while it sits or lies on your lap.

Both of these positions will also help comfort a restless baby or a baby that cries more than usual.



CHAPTER 19: TREATMENT FOR BREASTFEEDING PROBLEMS

I. TABLE: Breastfeeding Problem and Treatment Summary

PROBLEM	TREATMENT
Not enough milk	<p>Counsel Mother: Even mother's that are malnourished have enough milk in their breasts to exclusively feed their child for the first six months. A mother's body knows to produce more milk when the child suckles on the breast. If the child suckles more, more milk will be produced and vice versa. Be sure to breastfeed continuously, even at night</p>
Mother's milk isn't the best alternative	<p>Counsel Mother: Mother's milk is the best method to feed the child. It is made specifically to fill the child's needs. It has the exact amount of protein and fat that he/she needs. In addition, it helps the child fight diseases. <i>Other types of milk such as bottle milk or cows' milk don't do this. Mother's Breast Milk is the best food for her baby.</i></p>
Nipples aren't big enough to breastfeed	<p>Counsel Mother: Women with any shape of a nipple can breastfeed. This includes inverted or flat nipples. It is not necessary to have a protruding nipple for breastfeeding. The milk does not come from the nipple, it comes from the breast.</p>
Mother won't be with child	<p>Teach Treatment: If mother has to go to work or leave for a portion of the day when the child will need to eat, the mother can express her milk in a container. This can be given to the child. See Procedure 6 for step-by-step instructions on how to take milk from the breast and save it for the baby when the mother is not present.</p>
Baby can't suckle the mother's breast correctly	<p>Counsel Mother on proper positioning. See procedure 1 for correct positioning.</p>
Pain due to cracked or engorged breast	<p>Counsel Mother on proper attachment and detachment of baby from mother's breast. See procedure 1 Sooth breast pain. See procedure 2 A breast that is so full of milk that the breast has pain, See procedure 3</p>

II. PROCEDURES

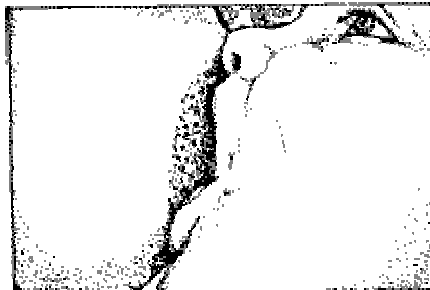
Procedure 1: Correct Positioning

How to hold the baby when breastfeeding

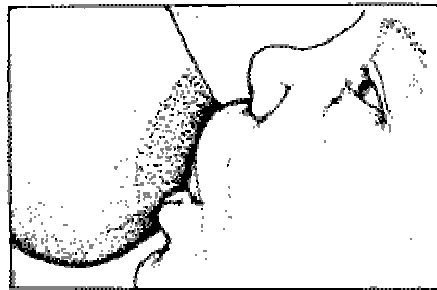
When breastfeeding, it is important to hold the baby so it can suckle and swallow easily. The mother should also be in a relaxed, comfortable position so that her milk can flow well.

- Support the baby's head with your hand or arm.
- Its head and body should be in a straight line.
- Wait until its mouth is opened wide.
- Bring the baby close to the breast and tickle its lower lip with the nipple
- Then move the baby onto your breast
- The baby should have a big mouthful of the breast with the nipple deep inside its mouth.

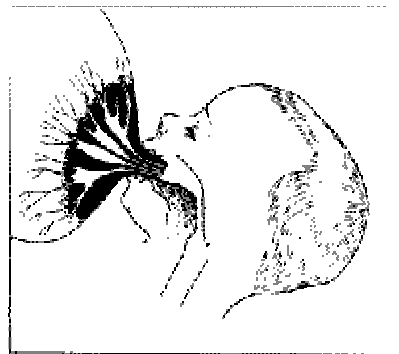
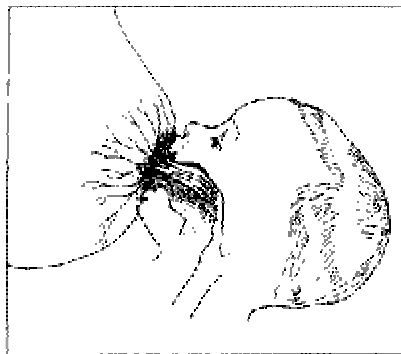
GOOD ATTACHMENT



BAD ATTACHMENT

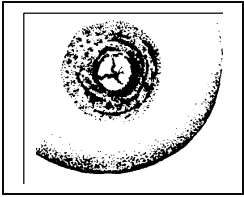


Good (left) and poor (right) attachment of infant to the mother's breast



Good (left) and poor (right) attachment - cross sectional view of the breast and baby

Procedure 2: Sore and/or Cracked Nipples



Treatment of Sore or/and Cracked Nipples

Do not pull your breasts out of the baby's mouth. Let the baby feed as long as it wants. When it is done, it will let go of the breast itself. If you need to stop before the baby is ready, pull down on its chin or gently put the tip of a clean finger into its mouth.

- Sooth sore nipples with breast milk at the end of a feeding. When the baby has stopped feeding, squeeze out a few drops of milk and rub them on the sore places.
- DO NOT use soap or cream on your breasts. The body makes a natural oil that keeps the nipples clean and soft.
- Avoid rough or tight clothing
- If possible, leave breasts open to air and sun. This helps them heal.
- Continue to feed from both breasts. Start on less sore breast and then switch to sore breast when the milk is flowing.
- If the pain is too great when the baby suckles, remove the milk by hand and feed the baby with a cup or spoon. See **Chapter 17, Procedure 1** on how to feed young child / baby with cup or spoon. The sore should heal in 2 days.

Procedure 3: Sore or/and Engorged (full) Breasts

Treatment for Pain or Swelling in Breast

- Feed the baby often, at least every 1 to 3 hours, and on both breasts.
- Sleep with baby nearby so you can breastfeed easily during the night.
- If the baby cannot suckle well, remove some milk by hand until the breast is soft enough. Let the baby try to attach to the breast and suckle again.
- After feeding, apply cool cloths or fresh cabbage leaves to the breasts.

The swelling should go down in 3 days. Swelling of breast that doesn't improve can become a larger problem. Refer to next procedure (**Procedure 4**) if swelling still exists.

Breastfeed in the Day



AND

Breastfeed in the night



Procedure 4: Breast Pain: Blocked duct or Mastitis

Treatment for blocked duct and mastitis

1. Take temperature or feel if forehead is hot. If mother has pain, a temperature 37.5 C or higher, or feels hot, Give Paracetamol to the child.
2. Home Treatment
 - The most important treatment is to continue breastfeeding minimally every two hours.
 - Apply warm wet cloths to the painful breast for 15 minutes before you breastfeed
 - Continue to feed the baby often, especially from the painful breast. Make sure the baby is holding the breast well in its mouth (See **procedure 1** for correct positioning of baby)
 - As the baby feeds, gently massage the lump, moving your fingers from the lump toward the nipple. This will help to clear the blocked duct.
 - If you cannot breastfeed, remove your milk by hand or use the warm-bottle method (**Procedure 5**). Milk must continue to flow from the breast(s) to clear the blocked duct.
 - Wear loose-fitting clothing, and rest as much as you can.

Most mastitis clears up in 1 day or 24 hours. Follow-up in one day. If no improvement is seen, refer to health clinic.

Procedure 5: Warm Bottle Method

Warm bottle method (removing milk from breast into bottle)

This method works best if the breasts are too full or very painful.



- Clean a large glass bottle (approximately 1 Liter) that has a 3-4 cm wide mouth such as a Coca-Cola or Fanta bottle.
- If the mother intends to give the baby the milk, boil water for 20 minutes. Let water cool down for a couple of minutes. If the mother only intends to relieve her breasts, it is not necessary to boil the water. Hot water is sufficient.
- Warm the bottle by filling it slowly with the hot water. The bottle may crack if you fill it too fast.
- Wait a few minutes and then pour the water out.
- If the mother plans to feed the child the milk, be sure to let the mouth and neck of bottle cool so that the bottle does not burn the mother.
- Fasten the bottle mouth over the nipple so that it makes a seal.
- Hold it firmly in place for several minutes. As it cools, it will gently pull the milk out.
- When the milk flow slows down, mother uses her finger to loosen the seal around the breast.
- Repeat on the other breast if it is also painfully full. Now you can comfortably breastfeed your baby.

Procedure 6: Saving Milk For When Mother Is Away From Child

How to Express Milk and Save It for Your Child when Mother is Not Home

STEP 1

How to Clean Jar before putting Breast Milk in it

1. Wash and rinse a wide-mouth jar and lid with soap and clean water.
2. Leave the jar and the lid in the sun to dry.
3. Just before using the jar, boil water for 20 minutes and pour water into jar.
4. Wait a few minutes while the boiled water is in the jar and then pour it out
(See pictures 1 and 2 in Procedure 5)

Wash your hands with soap and water before touching the jar or your breasts

STEP 2

How to Express Milk from Your Breasts



1. If possible, find a quiet place. Think about your child during the following procedure.
2. Place your fingers and thumb at the back edges of the nipple (the darker part)
3. Press in toward the chest (do not squeeze the nipple. The milk comes from behind the nipple)
4. Then relax your fingers, moving them all around the nipple. You should not feel any pain.

Repeat several times on each breast.

At first, not much milk will come out. With practice, you will remove more milk.

You will need to remove about half a cup of your milk as many times as your child eats in a day or a minimum of 3 times per day. The person who gives the baby your milk when you are not around can let you know if there was enough.

Note: If you **start to practice 2 weeks before you return to work**, you will be able to remove enough milk by the time you must be separated from your baby.

STEP 3

How to store the expressed milk

- Keep in same jar. Keep the jar in a cool place away from sunlight and the milk can be used for 8 hours.

OR

- You can bury the closed container in wet sand, clay pot with cool water or keep it wrapped in a cloth that is kept wet all the time, and it will keep for about 12 hours.

OR

- If kept in a refrigerator, milk lasts for 2-3 days. The cream (fat) in the milk will separate; so before giving it to the baby, shake the container to mix the milk. Heat it gently in warm water. Test the milk on your arm to make sure it is not too hot by shaking a few drops onto your arm.

III. FOLLOW-UP CARE

1. AFTER 5 DAYS: Give 2nd visit to Mother and Child.

- Reassess breastfeeding Problem
 - If the problem was positioning, ask the mother to demonstrate how she gives breast milk to her child.
 - If the women had painful or cracked breasts, reassess breast(s) to see if the breasts have started to look better.
- Treatment for correct positioning
 - If mother is still incorrectly feeding the baby, gently tell the mother how she can improve the positioning of her baby.
 - If mother is correctly feeding, congratulate the mother on being a good mother.
- Treatment for cracked or painful breast(s)
 - If breast(s) is no longer or less painful since the last visit, congratulate the mother on correctly caring for herself. Be sure that mother has continued to breastfeed and there are no problems with this.
 - If the breast(s) is the same or worse with regards to cracking or pain, teach mother to follow **Procedure 4**. You will need to visit the mother in 24 hours or approximately 1 day to see if the breast(s) are improving. If they are not, refer mother to the hospital or clinic.

CHAPTER 20: FOLLOW-UP VISITS

****Advise the mother when to return to Health Worker.**

SUMMARY

Advise mother when you will be returning to her home for a follow-up visit.

If Child Has:	Follow-Up In:
PNEUMONIA DYSENTARY MALARIA, if fever persists MEASLES, with eye or mouth complications	2 Days
DIARRHEA ACUTE EAR INFECTION CHRONIC EAR INFECTION FEEDING PROBLEMS Any Other Illness, if not improving	5 Days
PALLOR	14 Days
VERY LOW WEIGHT FOR AGE	30 Days

When to Return Immediately

*Advise the mother to take the child to the nearest clinic or hospital if the child has any of these signs:

Any Sick Child who:	<ul style="list-style-type: none"> • Not Able to Drink or Breastfeed • Becomes Sicker • Develops a Fever
If child has no: PNEUMONIA, COUGH or COLD , also return if:	<ul style="list-style-type: none"> • Fast Breathing, • Difficult Breathing
If child has DIARRHEA , also return if:	<ul style="list-style-type: none"> • Blood in Stool • Not Drinking or Breastfeeding Poorly

I. Pneumonia

AFTER 2 DAYS: check for general danger signs. Assess child for cough or difficult breathing. Refer back to the Assess and Classify portions of the manual.

ASK: Is the child breathing slower?
Is there less fever?
Is the child eating better?

Treatment:

- If chest indrawing or a general danger sign is present, refer urgently to the hospital.
- If the breathing rate, fever, and eating are the same, refer child immediately to the hospital.
- If breathing is slower, less fever, or eating better, complete the 5 days of antibiotics.

II. Diarrhea

AFTER 5 DAYS: check for presence and magnitude of diarrhea

ASK: Has the diarrhea stopped?
How many loose stools is the child having per day?

Treatment:

- If diarrhea has not stopped (child is still having 3 or more loose stools per day), do a full assessment of the child. Give any treatment needed. Then refer to the hospital.
- If the diarrhea has stopped (less than 3 loose stools per day), tell the mother to follow the usual feeding recommendations for the child's age.

III. Malaria

AFTER 2 DAYS, Refer urgently to hospital.

IV. Ear Infection

AFTER 5 DAYS: Reassess ear problem. Measure the child's temperature.

Treatment:

- If there is tender swelling behind the ear or high fever (38.5 C or above), refer Urgently to the Hospital.
- Acute ear infection: if ear pain or discharge persists, treat with 5 or more days of the same antibiotic. Continue wicking to dry the ear. Follow-up in 5 days.
- Chronic ear infection: Check that the mother is wicking the ear correctly. Encourage her to continue.

- If no ear pain or discharge, praise the mother for her careful treatment. If she has not yet finished the 5 days of antibiotics, tell her to use all of it before stopping.

V. Feeding Problem

AFTER 5 DAYS: Reassess feeding

ASK about any feeding problems found on the initial visit

- Counsel the mother about any new or continuing feeding problems. If you counsel the mother to make significant changes in feeding, follow-up with another visit.
- If the child is very low weight for age, revisit mother in 30 days after the initial visit to measure the child's weight gain.

VI. Very Low Weight

AFTER 30 DAYS:

Weigh the child and determine if child is still 'very low weight for age'.

Reassess Feeding

Treatment:

- If child is no longer very low weight for age, praise the mother and encourage her to continue.
- If child is still very low weight for age, counsel the mother about any feeding problem found. Revisit the mother in one month. Continue to see the child monthly until the child is feeding well and gaining weight regularly or is no longer very low weight for age.
*Exception: If you do not think the feeding will improve, or the child has lost weight, Immediately Refer the child to the Hospital

IX. Anemia

AFTER 5 DAYS:

Treatment:

- Give Iron or Folic Acid. Go to '*Teach the Mother to Give Oral Drugs at Home*' (Annex B) to find both the dosage and how to teach the mother to give oral medication.
- Give mother iron tablets so that she can continue to give iron to her child every day for 2 months.
- Follow-up every 14 days.
- If the child has anemia after 2 months, Refer to Hospital for Further Assessment.

ANNEX A

Prioritize Problems: If Child Has More Than One Problem

WHAT IS MOST IMPORTANT???

Determine priority of advice

When a child has only one problem to be treated, give all of the relevant treatment instructions and advice recommended.

When a child has several problems, the instructions to mothers can be complex. In this case, you will have to limit the instructions to what is most important. You will have to determine:

- How much can **this** mother understand and remember?
- Will there be a follow-up visit? If so, some advice can wait until then.
- What advice is **most** important to get the child well?

If a mother seems confused or you think that she will not be able to learn or remember all the treatment instructions, select only those instructions that are most essential for the child's survival. Examples of essential treatments include giving antibiotic or anti-malarial drugs and giving fluids to a child with diarrhea. Teach the few treatments well and check that the mother remembers them.

When a child has more than one problem or classification, you must refer to the TREATMENT / WHAT TO DO recommendations. The colors of the classification: red, yellow, and green will help you to determine priority.

- **RED** needs urgent attention and referral. Do only what is indicated. If there is more than one red 'treatment/what to do', follow all of them.
- **YELLOW** means that the child may need a referral, which is not as urgent as red. Therefore, yellow is second priority to red, but more important than green.
- **GREEN** means most of the time that home counseling or treatment will be done. This color is your last priority when more than one colored treatment is indicated.

You can give the other treatment instructions with a follow-up visit. Make a list of what wasn't taught. On the next follow-up visit, assess if mother has learned what was taught on the last visit. If she has, continue to teach one or two new items that were on your list.

ANNEX B

HOW TO TEACH A MOTHER TO GIVE ORAL DRUGS AT HOME



Teach the Mother to Give Oral Drugs at Home

Follow the instructions below for every oral drug to be given at home. Also follow the instructions listed with each drug's dosage table.

- 1. Determine the appropriate drugs and dosage for the child's age or weight**
 - Go to the appropriate drug in this chapter; the table will give dosage for child's age or weight
- 2. Tell the mother the reason for giving the drug to the child**
- 3. Demonstrate how to measure a dose**
 - Go to the description below on 'How to Measure Liquids'
- 4. Watch the mother practice measuring a dose herself**
- 5. Ask the mother to give the first dose to the child**
- 6. Explain carefully how to give the drug, then label and package the drug**
- 7. If more than one drug will be given, collect, count and package each drug separately.**
- 8. Explain that the oral drug tablets or syrup must be used to finish the course of treatment, even if the child gets better**
- 9. Check the mother's understanding before she leaves the clinic**

I. HOW TO MEASURE MEDICINE

Procedure 1: How to Measure Liquids

Sometimes instructions ask you for a specific amount of liquid to give the child. For example, it might ask that you give 5 cc (cubic centimeters). Cubic centimeters (cc) are the same as Milliliters (ml). Therefore, you would measure out 5 ml.

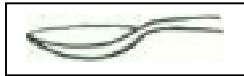
Cubic centimeters = cc = Milliliters = mL

We will use milliliters (ml) from now on to explain how to measure liquids. Remember that milliliters are the same thing as cubic centimeters (cc).

In many areas around the world, 1 Liter is equal to a soda bottle (i.e. Coca Cola). This is then used as a measuring device.

Choose items that are common in the area, such as 1L Coca Bottle, so that you are able to teach mothers how to measure liquids in items that they can obtain.

Easy to Remember Measurements:



1 teaspoon = 1 tsp = 5 milliliters (ml)



1 tablespoon = 1 Tb = 15 milliliters (ml)

Procedure 2: How to Measure Pills

1. Know How Much Drug is in Each Pill or Capsule

Many medicines, especially antibiotics, come in different weights and sizes. To be sure that you are giving the child the right amount, check how many grams or milligrams each pill or capsule contains.

1000 milligrams = 1 gram
1 gram = .001 milligrams

An Example: An aspirin tablet has 325 milligrams (mg) of aspirin. There are three ways to say and write 325 mg.



They are:

0.325 g

325 g

325 mg

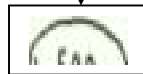
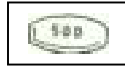
2. Decide If Table or Pill is Too Big, Too Small or Just the Right Size

If the medication you have isn't the weight or size that you want, you may have to use only a portion of the pill or more than one.

Tablet is the Right Size: If the tablet is the right size, then give the child the entire tablet.

Tablet is Too Big

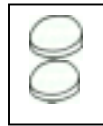
Example: Tablet has 500 mg. You need 250 mg.



- Split the tablet in half. Capsules can't be broken.
- Give half of the tablet to the child

Tablet is Too Small

Example: Tablet has 200 mg. You need 400 mg.



- You need two tablets

Example: Tablet has 100 mg. You need 250 mg.



- You need 2 ½ tablets
- Get out 3 tablets
- Split one tablet in half
- Give child 2 tablets with one half of the tablet that you broke

II. HOW MUCH MEDICINE TO TAKE

Procedure 3: Measure Dosage with Weight of Child

- Weight is measured in kilograms. If you know how much the child weighs, you can figure out how much medication to give the child.
- The dosage is per kilogram per day (An example: 2 mg / kilogram (kg) / day)

Example: The medication says the child needs 5 mg / kilogram / day
 Child weighs 10 kilograms.

5 mg for every kilogram equals 50 mg over a day

OR

5 mg x 10 kilograms = 50 mg for the child over a day

■ **Teaching Tips: Do Not Take More Medication than Advised**

Some people think that taking more of a medication than advised will heal the body faster. This is not correct and can be very dangerous! Instead of helping to heal the body, it hurts the body. If a person decides to take a lot more medication than prescribed, it could in some cases cause death.

Do not take more medication than is advised or given to you. More medication will hurt the child and will not help the child get better faster.

■ **Teaching Tips: Child feels better; Let's Save the Remainder of the Medication**

A mother might think that once her child is feeling better, the child doesn't need the medication. She may decide that since she doesn't have a lot of money, she will save the remainder of the medication for another time that someone in the family is sick. The truth is that even though the child may look better, the sickness still lives in the body. The full amount of medication needs to be given to the child to kill off the sickness. If the medication is stopped early, the sickness will come back even stronger and the medication may no longer work. This means that the mother will have to buy stronger, more expensive medication.

It's important to finish **all** of the medication that is given, even if the child is feeling better. The disease won't be gone until all of the medication is given.

III. WHEN TO TAKE MEDICATION

It is important to take medications at the correct time. Some medicines should only be taken once a day. Others need to be taken more often. If you have a watch or clock, you can write down the appropriate times to take a medication. If they do not have a watch or clock, you can describe what part of the day the medication is too be taken. Below are some examples.

Example 1: Take 1 pill each day for 7 days.

Choose the best time for the mother, such as when she feeds the child or before the child is put to bed. Tell the mother to give the medication at about the same time each day.

Example 2: Take 2 pills each day until medication is finished.

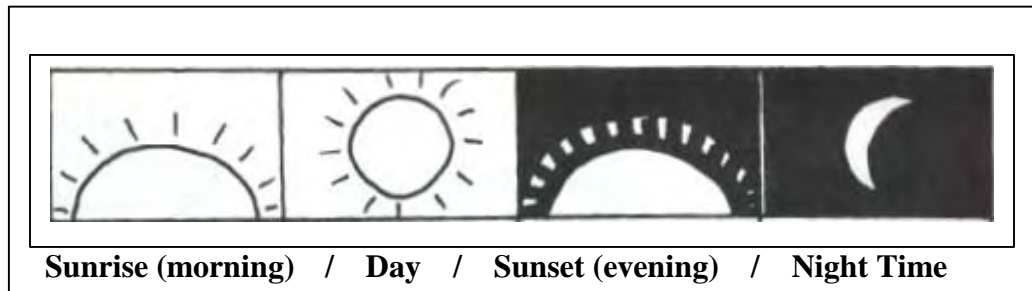
Give one pill in the morning and one before bedtime.

Example 3: Take 3 pills each day or one every 8 hours.

If there is no clock or watch, tell the mother to give one pill at Sunrise, one in the afternoon, and one at night.

If the mother has a watch or clock, ask her what times are the best to medicate the child and write those times down for her.

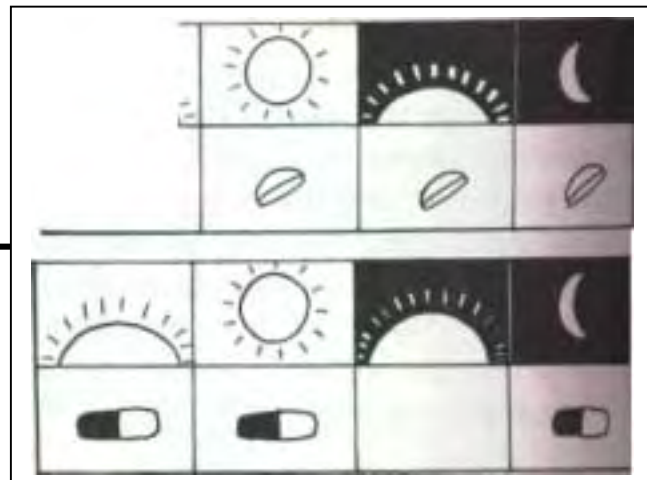
If you are writing a note for someone who does not know how to read, you can draw them a note like this:



Then below the picture, you can draw in the amount of medication and explain carefully what it means. Below is an example of two ways that you could draw out how to give medication.

**Give ½ tablet three times a day,
one at lunch time,
one at dinner when the sun sets,
and one at bedtime**

**Give 1 capsule three times a day,
one in the morning (sunrise),
one at lunch (daytime) ,
and one before bed.**



**ANNEX C:
MEDICATION DOSAGE INFORMATION**

I. ORAL ANTIBIOTICS

A. Pneumonia, acute ear infections or signs of severe disease

First-line antibiotic: Cotrimoxazole

Second-line antibiotic: Amoxicillin

	COTRIMOXAZOLE (trimethoprim and sulfamethoxazole) 2 times daily for 5 days			AMOXYCILLIN 3 times daily for 5 days	
	Adult Tablet (80 mg trimethoprim + 400 mg sulfamethoxazol)	Pediatric Tablet (20mg trimethoprim + 100mg sulfamethoxazole)	Syrup (40mg trimethoprim + 200mg sulfamethoxazole per 5 mL)	Tablet (250 mg)	Syrup (125 mg in 5 mL)
2 months up to 12 months (4-<10 kg)	½	2	5.0 mL	½	5.0 mL
12 months up to 5 years (10-19 kg)	1	3	7.5 mL	1	10.0 mL

B. Dysentery

Give Cotrimoxazole for 5 days

First-line antibiotic for Shigella: Cotrimoxazole

Second-Line antibiotic for Shigella: Ampicillin

Age or Weight	COTRIMOXAZOLE (trimethoprim and sulfamethoxazole) 2 times daily for 5 days			AMPICILLIN 4 times daily for 5 days	
	Adult Tablet (80 mg trimethoprim + 400 mg sulfamethoxazole)	Pediatric Tablet (20 mg trimethoprim + 100 mg sulfamethoxazole)	Syrup (40 mg trimethoprim + 200 mg of sulfamethoxazole per 5 mL)	Tablet (250 mg)	Syrup (125 mg in 5 mL)
2 months up to 12 months	1/2	2	5.0 mL	1/2	5.0 mL
12 months up to 5 years	1	3	7.5 mL	1	10.0 mL

C. Cholera

Give antibiotic recommended for cholera in your area for 3 days

First-line antibiotic for Cholera: Tetracycline

Second-line antibiotic for Cholera: Cotrimoxazole

Age or Weight	TETRACYCLINE 4 times daily for 3 days	COTRIMOXAZOLE (trimethoprim and sulfamethoxazole) 2 times daily for 3 days		
	Tablet (250 mg)	Adult Tablet (80 mg trimethoprim + 400 mg sulfamethoxazole)	Pediatric Tablet (20 mg trimethoprim + 100 mg sulfamethoxazole)	Syrup (40 mg trimethoprim + 200 mg of sulfamethoxazole per 5 mL)
2 months up to 4 months	Do not use at this age	1/2	2	5.0 mL
4 months up to 12 months	1/2	1/2	2	5.0 mL
12 months up to 5 years	1	1	3	7.5 mL

II. ORAL ANTIMALARIALS

Malaria

First-line Antimalarial: Chloroquine

Second-line Antimalarial: Sulfadoxine + Pyrimethamine (Fansidar)

If Chloroquine:

- Explain to the mother that she should watch her child carefully for 30 minutes after giving a dose of chloroquine. If the child vomits within 30 minutes, repeat the dose and return to the clinic for additional tablets.
- Explain that itching is a possible side effect of the drug, but is not dangerous

If Sulfadoxine + Pyrimethamine: Give single dose at the clinic.

	CHLOROQUINE						SULFODOXINE + PYRIMETHAMINE
	Give for 3 Days						Give single dose in clinic
Age or Weight	Tablet (150 mg base)			Syrup (50 mg base per 6 mL)			Tablet (500 mg Sulfadoxine + 24 mg Pyrimethamine)
	Day 1	Day 2	Day 3	Day 1	Day 2	Day 3	1 Day Treatment
2 months up to 12 months (4 - <10 kg)	½	½	½	7.5 ml	7.5 ml	5.0 ml	½ tablet
12 months up to 3 years old (10 - <14 kg)	1	1	½	15.0 ml	15.0 ml	5.0 ml	1 tablet
3 years old up to 5 years old (14 - 19 kg)	1 ½	1 ½	½				1 tablet

* Consult national guidelines for treatment of malaria plus pneumonia.

III. PARACETAMOL

Fever OR Ear Pain

Give Paracetamol for High Fever (>38.5 C) or Ear Pain every 6 hours until high fever and ear pain is gone.

Weight and Age	Tablet (100 mg)	Tablet (500 mg)	Oral Solution ¹ (48 mg per 1 ml)
2 months up to 3 years old (4 - <14 kg)	1	¼	2.5 ml
3 years old up to 5 years old (14 – 19 kg)	1 ½	½	4.0 ml

IV. VITAMIN A

When to give, how often

A. Measles, Persistent Diarrhoea, Severe Malnutrition

Give first dose to child in home

Give mother one dose to give at home the next day

Revisit mother in 2 to 4 weeks for third dose of Vitamin A

B. Pneumonia

Give one dose to child

C. Supplementation for Children 9 months or older

If no dose of Vitamin A has been given to child, give one dose of Vitamin A

For A through C, record dose on the child's health card

VITAMIN A CAPSULES			
Age	200,000 IU	100,000 IU	50,000 IU
Up to 6 months old		½	1
6 months old up to 12 months old	½	1	2
12 months old up to 5 years old	1	2	4

¹Calculation of dosage: Nursing 97 Drug Handbook, NDH, Springhouse Corporation

V. IRON or FOLIC ACID

Give iron or folic acid to child with anemia

If you know that the child has sickle cell anemia, give folic acid only.

Age or Weight	IRON		FOLIC ACID	
	Tablet (Ferrous Sulfate) 200 mg	Syrup (Ferrous Fumarate) 60mg per 5 ml	Tablet (1 mg)	Tablet (5 mg)
2 months old up to 4 months old (4 - <6 kg)		2.0 ml (½ tsp)	2 ½	½
4 months old up to 12 months (6 kg - <10 kg)		2.5 ml (½ tsp)	2 ½	½
12 months old up to 3 years old (10 - <14 kg)	½	4.0 ml (<1 tsp)	2 ½	½
3 years old up to 5 years old (14 – 19 kg)	½	5.5 ml (1 tsp)	2 ½	½

*Note: If the child is receiving the anti-malarial medication, sulfadoxine-pyrimethamine, do not give iron/folate tablets until 2 weeks after medication is given

VI. MEBENDAZOLE

Given for **Hookworm and Whipworm**

- Give 500 mg Mebendazole as a single dose if:
 - Hookworm/whipworm are a problem in children in your area, and
 - The child is 2 years of age or older, and
 - The child has not had a dose in the previous 6 months

BIBLIOGRAPHY

The CORE Group & The Nutrition Working Group (1999) *Conference Proceedings: The Path to Maternal and Child Health & The PVO Role in Improving Iron and Vitamin A Status*. Washington, D.C.

The CORE Group, BASICSII & USAID (2001) *IMCI Workshop Proceeding: Reaching Communities for Child Health: Advancing PVO/NGO Technical Capacity and Leadership for Household and Community Management of Childhood Illness (HH/C IMCI)* Baltimore, Maryland.

The CORE Group & USAID (2000) *The CORE Group Annual Membership Meeting: Advancing the Child Survival Agenda*. Millwood, Virginia.

Child in Need Institute (2000) *Report: Training of the Trainers of Basic Health Workers of World Vision Area Development Programme on IMCI*. West Bengal, India: USAID/ CINI / WHO / South East Asia Region New Delhi, India

Department of Health Philippines: Maternal and Child Health Service & United Nations Children's Fund (1997) *Barangay Health Workers' on Maternal and Child Health: Home Guide*. Philippine Department of Health

Hill, Z., Kirkwood, B. & Edmond, K. (2001) *Family and community practices that promote child survival growth and development: A review of evidence*. London School of Hygiene & Tropical Medicine.

Kangwana Ayisi, R. & Okoth Onditi, S. (2001) *Report: The First Nyanza Province Case Management Training Course on the Integrated Mangement of Childhood Illnesses Isumu, Kenya, 10th – 21st September, 2001*. Draft

Kelley, L.M., & Black, R.E. (2001) Research to Support Household and Community IMCI: Report of a meeting, 22-24 January 2001 Baltimore, Maryland, USA. *J Health Population Nutrition* 19(2): S111-S154

Leban, Karen (1999) *Workshop Proceedings: Reaching Communities for Child Health: Partnering with PVOs in Integrated Management of Childhood Illness (IMCI)*. Washington D.C.: Pan American Health Organization

The Republic of Uganda (2000) *IMCI: Communication Strategy for Child Survival Growth and Development*.

Saxena, R., Sinho, S., & Pillai, G. (1999) *IMCI: Building Capacity of Basic Health Workers; The Indian Experience*. Nutrition and Health Sector CARE India.

- Secretaria de Salud Departamento Materno Infantil, Honduras (1998) *Cuadros de Procedimientos* BASICSII / USAID / WHO / AIEPI
- Secretaria de Salud Departamento Materno Infantil, Honduras (1998) *Guia del Facilitador para la Guia Technica* BASICSII / USAID / WHO / AIEPI
- Secretaria de Salud Departamento Materno Infantil, Honduras (1998) *Guia del Facilitador para la Capacitacion de Atencion Integral a la Ninez en la Comunidad* BASICSII / USAID / WHO / AIEPI
- Secretaria de Salud Departamento Materno Infantil, Honduras (1998) *Manual De Procedimientos: Atencion Integral a la Ninez: Atencion Integrada a las Enfermedades Prevalentes de la Infancia* BASICSII / USAID / WHO / AIEPI
- Secretaria de Salud Departamento Materno Infantil, Honduras (1998) *Manual del Voluntario para la Atencion Integral a la Ninez* BASICSII / USAID / WHO / AIEPI
- Secretaria de Salud Publica, USAID & BASICSII (1998) *Atencion Integral a los Ninos y Ninas Enfermos en la Comunidad: Manual del Monitor y Monitora de AIN-C*. Tegucigalpa, M.D.C., Honduras, C.A.
- Ugandan Ministry of Health (2000) *Integrated Management of Childhood Illness: Household and Community Component in Uganda Implementation Strategy 2000-2004*.
- Ugandan Ministry of Health (2000) *Integrated Management of Childhood Illness Implementation Guide for District and Sub-county Facilitators: Household and community child health activities*.
- Ugandan Ministry of Health (2000) *Integrated Management of Childhood Illness Users Manual: Messages and Actions for Promoting Household & Community Key Behaviors: What community resources persons need to know and pass-on to caretakers*
- Wagman, J.A. & Winch, P.J. (2000) *Nutrition Resources: Implementing and Evaluating Nutrition Interventions for Managers of PVO Child Survival Projects: A Guide to Manuals, Guidebooks, and Reports*. Baltimore, Maryland: Johns Hopkins University School of Hygiene and Public Health / CSTS / USAID
- Winch, P., LeBan, K., Kusha, B. & participants at the Workshop (2001, April) *Community IMCI: Reaching Communities for Child Health and Nutrition: A Framework for Household and Community IMCI*. CORE / BASICS II / USAID / CSTS
- WHO/CDR/95.14.B (1995) *Management of Childhood Illness: Assess and Classify the Sick Child Age 2 Months Up to 5 Years*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control and UNICEF

WHO/CDR/95.14.C (1995) *Management of Childhood Illness: Identify Treatment*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control and UNICEF

WHO/CDR/95.14.D (1995) *Management of Childhood Illness: Treat the Child*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control & UNICEF.

WHO/CDR/95.14.E (1995) *Management of Childhood Illness: Counsel The Mother*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control and UNICEF

WHO/CDR/95.14F (1995) *Management of Childhood Illness: Management of the Sick Young Infant Age 1 Week Up to 2 Months*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control and UNICEF

WHO/CDR/95.14.G (1995) *Management of Childhood Illness: Follow-Up*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control and UNICEF

WHO/CDR/95.14.H (1995) *Management of Childhood Illness: Facilitator Guide for Outpatient Clinical Practice*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control and UNICEF

WHO/CDR/95.14K (1995) *Management of Childhood Illness: Course Director's Guide*. Atlanta, Georgia: WHO Division of Diarrheal and Acute Respiratory Disease Control and UNICEF

WHO/CHD (1995) *Charts: Management of Childhood Illness: Assess and Classify the Sick Child Age 2 Months Up to 5 Years*. Atlanta, Georgia: World Health Organization

WHO/FCH/CAH/00.12 (2000) *Handbook IMCI: Integrated Management of Childhood Illness*. World Health Organization

WHO/FCH/CAH/00.1 & HCT/AIEPI 23.E (2001) *Enfermedades Prevalentes de la Infancia Guia basica para el nivel de referencia hospitalaria* Pan American Health Organization / BASICSII / USAID / WHO / AIEPI

WHO/FCH/CAH/01.01 (2001) *Model Chapter for Textbooks IMCI: Integrated Management of Childhood Illness* World Health Organization, Department CAH & UNICEF

WHO/FCH/CAH/01.02 (2001) *Cough and Cold Remedies for the Treatment of Acute Respiratory Infections in Young Children*. WHO Department of Child and Adolescent Health and Development

WHO/FCH/CAH/01.10 (2001) *Technical Seminars IMCI: Integrated Management of Childhood Illness*. WHO Department of Child and Adolescent Health and Development & UNICEF

WHO/FCH/CAH/01.25 (2001) *Report of a Meeting Geneva 19-21 June 2000: Improving Quality of Pediatric Care in Small Hospitals in Developing Countries* World Health Organization

Additional resources for Diarrhea: Chapters 7 & 15

Ahmed, F., J.D. Clemens, M.R. Rao, and A.K. Banik (1994). Family Latrines and Paediatric Shigellosis in Rural Bangladesh: Benefit or Risk? *International Journal of Epidemiology* 23 (4): 856-862.

Bateman, O.M., and S. Smith (1991). *A Comparison of the Health Effects of Water Supply and Sanitation in Urban and Rural Guatemala*. WASH Project Field Report No. 352, Environmental Health Project, Arlington, VA.

Billig, P., D. Bendahmane, and A. Swindale (1999) *Water and Sanitation Indicators Measurement Guide*. Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, DC.

Cairncross, S. (1992). *Sanitation and Water Supply: Practical Lessons from the Decade*. Water and Sanitation Discussion Paper Series #9. Washington, DC: UNDP-World Bank Water and Sanitation Program.

Esrey, S.A., JB Potash, L Roberts, and C Shiff (1991) Effects of Improved Water Supply and Sanitation on Ascariasis, Diarrhoea, Dracunculiasis, Hookworm Infection, Schistosomiasis, and Trachoma. *Bulletin of the World Health Organization* 69(5):

EHP (2003) *Hygiene Improvement Quantitative Assessment Guide* – draft

EHP (2003) *Participatory Monitoring Guide for Hygiene Improvement* -draft

Feachem, RG *et al* (1983). *Sanitation and Disease: Health Aspects of Excreta and Waste Management*. Chichester, UK: John Wiley and Sons.

Guerrant R, Kosek M, Lima A, Lorntz B, Guyatt H. (2002) Updating the DALYs for Diarrheal Disease. *Trends in Parasitology*, 18(5):

International Research Centre (1998). *Hygiene Promotion: The Need for Behavioral Change*. The Hague, Netherlands: International Research Centre on Water Supply and Sanitation (IRC).

Eric Mintz, Jamie Bartram, Peter Lochery, Martin Wegelin. (2001) Not Just a Drop in the Bucket: Expanding Access to Point-of-Use Water Treatment Systems. *American Journal of Public Health* 91(10):

J.T. Macy, R.E. Quick. (2002) World Spotlight: The Safe Water System—A Household-Based Water Quality Intervention Program for Developing World. *WCP Online* 44(4):
The World Bank (1993) World Development Report.

The World Bank (1999) *Sanitation, Health and Hygiene in World Bank Rural Water Supply and Sanitation Projects*. The World Bank, Europe and Central Asia Regional Studies Program.

United States Agency for International Development. (2000). *Health and Family Planning Indicators; Volume II: Measuring Sustainability*. Office of Sustainable Development – Bureau for Africa.

Additional resources for Malaria: Chapters 8 & 16

Aly Thera, M., D'Alessandro, U., Thiero, M., Ouedraogo, A., et al. (2000, December) Child malaria treatment practices among mothers in the district of Yanfolila, Sikasso region, Mali. *Tropical Medicine and International Health*. 5(12): 876-881

Anand, K., Kant, S., Kumar, G. & Kapoor, S.K. (1999, June) Clinical case definition of malaria at a secondary level hospital in Northern India. *Southeast Asian J. Trop Med Public Health* 30(2): 243-245.

Boyang, K.A., Obaro, S., Morisonan, L.A., & Greenwood, B.M. (2000, April) A prospective evaluation of a clinical algorithm for diagnosis of malaria in Gambian children. *Tropical Medicine and International Health*. 5(4): 231-236

Chandramohan, D., Carneiro, I., Kavishwar, A., Burgha, R., et al. (2001, July) A clinical algorithm for the diagnosis of malaria: results of an evaluation in an area of low endemicity. *Tropical Medicine and International Health*. 6(7): 505-510

Chandramohan, D., Jaffar, S., & Greenwood, B. (2001, Jan.) Use of clinical algorithms for diagnosing malaria. *Tropical Medicine and International Health*. 7(1): 45-52

Crawley, Jane. (n.d.) The Treatment of Malaria in African Children Retrieved at http://www.ipa-france.net/pubs/inches/inch8_2/crawley.htm retrieved on 04/16/2002.

Diallo, S., Ndir, O., Faye, O., Diop, B.M., et al. (1993) Le paludisme dans le District sanitaire sud de Dakar (Senegal). 1. Parasitemie et acces paludeens. *Bull. Soc. Path. Ex.* 91(3): 208-213.

Einterz, Ellen. (1997, September 13) Fever in Africa: do patients know when they are hot? *The Lancet*. 350: 781

Font, F., Gonzalez, A.M., Nathan, R., Kimario, J. et al. (2001, June) Diagnostic accuracy and case management of clinical malaria in the primary health services of a rural area in south-eastern Tanzania. *Tropical Medicine and International Health*. 6(6): 423-430

Kelly, J.M., Osamba, B., Garg, R.M., Hamel, M. et al. (Oct. 2001) Community Health Worker Performance in the Management of Multiple Childhood Illnesses: Siaya District, Kenya, 1997-2001. *American Journal of Public Health*. 91(10): 1617-1624

Kidane, G. & Morrow, R. (2000, August 12) Teaching mothers to provide home treatment of malaria in Tigray, Ethiopia: a randomized trial. *The Lancet* 356: 550-555

Krishna, S., Pukrittayakamee S., Supanaranond W., Kuile ter, F., Ruprah, M., & White, N.J. (1995) Fever in uncomplicated Plasmodium falciparum malaria: randomized double-‘blind’ comparison of ibuprofen and paracetamol treatment. *Transactions of the Royal Society of Tropical medicine and Hygiene*. 89: 507-509.

Lepers, J.P., Andriamangotiana-Rason, M.D., Ramanamirija, J.A., Fontenille, D. et al. (1989) Le Paludisme en 1988 dans un village des Hauts Plateaux malgaches. *Arch. Inst. Pasteur Madagascar* 56(1): 97-130.

Linhua, T., Manderson, L., Da, D., Kaichen, W., Xianzheng, C., Changxiong, L. et al. (1995) Social aspects of malaria in Heping, Hainan. *Acta Tropica*. 59: 41-53.

Magnussen, P., Ndawi, B., Sheshe, A.K., Byshov, J., et al. (2001, 2001) Malaria diagnosis and treatment administered by teachers in primary schools in Tanzania. *Tropical Medicine and International Health*. 6(4): 273-279

Meremikwu, M.M., Asindi, A.A., Ezedinachi, E., Imananagha, L., Etim, B. et al. (1995) Hyperventilation in febrile Nigerian children without pneumonia : an evaluation of the influence of anemia. *Central African Journal of Medicine* 41(8): 248-252.

Moir, J.S., Tulloch, J.L., VrBova, H., Jolley D.J., Heywood, P.F., & Alpers, P. (1985) The Role of Voluntary Aides in the Control of Malaria by Presumptive Treatment of Fever. 2. Impact on Village Health. *Papau New Guinea Medical Journal*. 28: 267-278.

Molyneux, C.S., Mung’ala-Odera, V., Harpham T., & Snow, R.W. (1999, December) Maternal responses to childhood fevers: a comparison of rural and urban residence in coastal Kenya. *Tropical Medicine and International Health*. 4(12): 836-845

Mtango, F.D.E. & Neuvians, D. (1986) Acute respiratory infections in children under five years. Control project in Bagamoyo District, Tanzania. *Transactions of the Royal Society of Tropical Medicine and Hygiene*. 80: 851-858.

Nshakira, N., Kristensen, M., Ssali, F. & Whyte, R. (2002, April). Appropriate treatment of malaria? Use of antimalarial drugs for children’s fevers in district medical units, drug

shops and homes in eastern Uganda. *Tropical Medicine and International Health*. 7(4): 309-316

Nsimba, S., Massele, A.Y., Eriksen J., Gustafsson, L.L. et al. (2002, March) Case management of malaria in under-fives at primary health care facilities in a Tanzanian district. *Tropical Medicine and International Health*. 7(3): 201-209

Nyamongo, I.K. (1999, November) Home case management of malaria: an ethnographic study of lay people's classification of drugs in Suneka Division, Kenya. *Tropical Medicine and International Health*. 4(11): 736-743

O'Dempsey, T.J.D., McArdle, T.F., Laurence, B.E., et al. (1993) Overlap in the clinical features of pneumonia and malaria in African children. *Transactions of The Royal Society of Tropical Medicine and Hygiene* 87: 662-665

Perkins, B.A., Zucker, J.R., Otieno, J., Jafari, H.S. et al. (1997) Evaluation of an algorithm for integrated management of childhood illness in an area of Kenya with high malaria transmission. *Bulletin of the World Health Organization* 75(1): 33-42

Rashid, S. F., Hadi, A., Afsana, K., & Begum, S.A. (2001, April) Acute respiratory infections in rural Bangladesh: cultural understandings, practices and the role of mothers and community health volunteers. *Tropical Medicine and International Health* 6(4): 249-255

Roll Back Malaria: A Global Partnership. <http://www.rbm.who.int> retrieved on 01/23/2002

Schellenberg, D., Menendez, C., Kahigwa, E., Font, F. et al. (1999) African children with malaria in an area of intense Plasmodium Falciparum transmission: features on admission to the hospital and risk factors for death. *Am. J. Med. Hyg.* 61(3): 431-438.

Shiff, Clive. (April 2002) Integrated Approach to Malaria Control. *Clinical Microbiological Reviews* 15(2): 1-8

Tahzib, Farhang. (1997, November 22) Fever in Africa and WHO recommendation. *The Lancet*. 350: 1549-1550

Tanner M. & Vlassoff C. (1998) Treatment-seeking behavior for malaria: A typology based on endemicity and gender. *Social Science Medical* 46(4-5): 523-532

Weber, M.W., Mulholland, E.K., Jaffar, S., Troedsson, H., Gove, S. & Greenwood, B.M. (1997) Evaluation of an algorithm for the integrated management of childhood illness in an area with seasonal malaria in the Gambia. *Bulletin of the World Health Organization* 75(1): 25-32

Williams, H.A., Kachur, A.P., Nalwamaba, C.N., Hightower, A. et al. (Oct. 1999) A perspective on the efficacy of malaria treatment for children in Lundazi District, Zambia. *Tropical Medicine and International Health* 4(10): 641-652

World Health Organization. (1991, April 8) *The overlap in the clinical presentation and treatment of malaria and pneumonia in children in children: report of a meeting* Geneva, Switzerland.

WHO/CDS/RBM 2000.14 (October 1999) *New Perspectives: Malaria Diagnosis.: Chapter 10 Approaches to the diagnosis of malaria* World Health Organization, Geneva

WHO/FCH/CAH/01.01 (2001) *Model Chapter for Textbooks IMCI*. World Health Organization. Fever Assessment 12-15

World Health Organization. (1996) *Malaria: A manual for community workers*. Geneva, Switzerland

World Health Organization. (n.d.) *WHO Expert Committee on Malaria* (Technical Report Series 892). Geneva, Switzerland

Additional resources for Fever / Infections: Chapter 9

Bang, A.T., Bang, R.A., Baitule, S.B., Reddy, M.H. & Deshmukh, M.D. (1999) Effect of home-based neonatal care and management of sepsis on neonatal mortality: field trial in rural India. *The Lancet* 354(9194): 1955-61

Factor, S.H., Schillinger, J.A., Kalter, H.D., Saha, S., Begum, H., Hossain, A. et al. (2001) Diagnosis and management of febrile children using the WHO/UNICEF guidelines for IMCI in Dhaka, Bangladesh. *Bulletin of the World Health Organization* 79(12): 1096-1105

Global Programme on Evidence for Health Policy Discussion Paper No. 36 (2001) *The Global Burden of Disease 2000 project: aims, method and data sources*. World Health Organization.

Nimri, L.F., Rawashdeh, M. & Meqdam, M.M. (2001) Bacteremia in children: etiologic agents, focal sites, and risk factors. *J Trop Pediatr* 47(6): 356-60

Nwosu, C.M., Njeze, G.E., Opara, C., Nwajuaku, C. & Chukwurah, C.K. (2001) Central nervous system infections in the rainforest zone of Nigeria. *East Afr Med J* 78(2): 97-101

Wurthwein, R., Gbangou, A., Sauerborn, R. & Schmidt, C.M. (2001) Measuring the local burden of disease. A study of years of life lost in sub-Saharan Africa. *Int J Epidemiol* 30(3): 501-508

Additional resources for Ear Infections: Chapters 10 &17

- Bastos, I., Mallya, J. Ingvarsson, L., Reimer, A., & Andreasson, L. (1995) Middle ear disease and hearing impairment in northern Tanzania. A prevalence study of schoolchildren in the Moshi and Moduli districts. *International Journal of Pediatric Otorhinolaryngology*. 32:1-12
- Berman, Stephen. (1995, July) Review Article: Otitis Media in Developing Countries. *Pediatrics*. 96(1):126-131
- Bluestone, Charles D. (1998) Epidemiology and pathogenesis of chronic suppurative otitis: implications for prevention and treatment. *International Journal of Pediatric Otorhinolaryngology*. 42:207-223
- Hatcher, J., Smith, A., Mackenzie, I. et al. (1995) A prevalence study of ear problems in school children in Kiambu district, Kenya, May 1992. *International Journal of Pediatric Otorhinolaryngology*. 33:197-205
- Klein, Jerome O. (2001) The burden of otitis media. *Vaccine*. 19:S1-S8
- Mahoney, Jack L. (1980) Mass management of otitis media in Zaire. *The Laryngoscope*. 90: 1200-1208.
- McPherson, B., & Holborow, C.A. (1985) A study of deafness in West Africa: the Gambian hearing health project. *International Journal of Pediatric Otorhinolaryngology*. 10: 115-135.
- MD Consult (2002) Patient Education Handout: Earaches in Children, A painful problem for many children. Retrieved from <http://home.mdconsult.com/das/patient/body/104783448/10062/8122.html>
- MD Consult (2002) Patient Education Handout: Ear Infections (Otitis Media) in Children. Retrieved from <http://home.mdconsult.com/das/patient/body/104783448/10041/5554.html>
- O'Neill, Paddy. (2002, February 1) BMJ Clinical Evidence: Acute Otitis Media. *American Family Physician*. 65(3)
- Rosenblut, A., Santolaya, M.E., Gonzalez, P., et al. (2001) Bacterial and viral etiology of acute otitis media in Chilean children. *The Pediatric Infectious Disease Journal*. 20(5): 501-506
- Seely, D.R., Gloyd, S.S., Omope Wright, A.D., & Norton, S.J. (1995, August) Hearing Loss Prevalence and Risk Factors Among Sierra Leonean Children. *Arch Otolaryngol Head Neck Surg*. 121: 853-858.

Shrestha, R., Baral, K., & Weir, N. (2001, November) Review Article: Community ear care delivery by community ear assistants and volunteers: a pilot program. *The Journal of Laryngology & Oncology*. 115:869-873

Smith, A.W., Hatcher, J., Mackenzie, I.J., et al. (1996, October 26) Randomized controlled trial of treatment of chronic suppurative otitis media in Kenyan schoolchildren. *The Lancet*. 348:1128-1133

Wilson, Sir John. (1990) Hearing impairment in developing countries. *The Journal of Otolaryngology*. 19(6): 368-371.

Wilson, Sir John. (1985) Deafness in Developing Countries: Approaches to a Global Program of Prevention. *Arch Otolaryngol* 111: 2-9.

Additional resources for Breastfeeding: Chapters 12 & 19

Burns, A.A., Lovich, R., Maxwell, J. & Shapiro, K. (1997) *Where women have no doctor: A health guide for women*. Berkeley, CA: Hesperian Foundation.

Ministry of Health and Family Welfare & National Integrated Population and Health Program (1999) *Technical guidelines for child survival interventions in Bangladesh*. Gulshan 1, Dhaka: BASICS

WHO/CDR/93.3 (1993) *Directors Guide: Breastfeeding counseling: A training course*. United Nations Children's Fund & World Health Organization.

WHO/CDR/93.4 (1993) *Trainers Guide: Breastfeeding counseling: A training course*. United Nations Children's Fund & World Health Organization.

WHO/CDR/93.6 (1993) *Overhead figures: Breastfeeding counseling: A training course*. United Nations Children's Fund & World Health Organization.