

# **Integrated Child Survival Training Course**

**For Medical Officers  
of First Level Care Facilities**

**DRAFT**

**Participant's Manual**

*The extensive use of World Health Organization material  
on Diarrhoea, Immunization and ARI has been used  
in the preparation of this manual*

**Pakistan Child Survival Programme  
Basic Health Service Unit  
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## INTRODUCTION

### Why Training in Child Survival?

Pakistan has one of the highest under-five mortality rates in the world. This rate, estimated at 80-120 deaths per thousand, can be attributed to the widespread incidence of diarrhoea, acute respiratory infections, malnutrition and six childhood diseases.

Most of these deaths could be prevented by means of simple, inexpensive interventions. By mobilizing the techniques, the skills and resources currently available, Pakistan could save hundreds or thousands of young lives per year.

The Child Survival Training Program has as its goals the improvement of case management of children coming to first level care facilities\*, a healthier child population and the lowering of Pakistan's child mortality rate. Key players in achieving these goals will be you and your colleagues, the Medical Officers of first level care facilities throughout Pakistan.

### The Purpose of this Course

The course has two major objectives:

1. To train Medical Officers of first level care facilities to perform a paediatric assessment of a child and provide appropriate case management in four main intervention areas - immunization, nutrition, diarrhoea and dehydration, and acute respiratory conditions.
2. To prepare you, the Medical Officer, to go back to your own medical facility, and implement changes which will improve health care management for the children coming to your clinic.

### What is Meant by "Integrated" Training?

The program is integrated in several ways. First, its success depends on health professionals working together, with mothers, for a common goal: the health of the growing child. In this way the efforts of the health professionals and the mother or caretaker are combined in meeting the child's health needs, in the home, and at the clinic.

Secondly, "integrated" care refers to the process of addressing health promotion, illness prevention and disease intervention (treatment) in tackling the main killers of children — diarrhoea, ARI, vaccine-preventable diseases and malnutrition.

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\* In this manual we refer to first level facilities as RHCs, BHUs, dispensaries, MCH clinics or centres and out-patient departments where primary health care is done in a small hospital.

## **What Training Will You Receive in this Course?**

Participants will receive training in counselling techniques and interpersonal communication as well as the basics of management for CDD and ARI. The course covers essential knowledge about nutrition and about the six vaccine-preventable diseases.

The training includes age-specific appropriate health care and the use of communication and teaching techniques to involve mothers in the continuation of essential, primary health care of their children at home. Most importantly, the training represents a departure from a traditional approach which focuses on the treatment of disease only. This training gives equal attention to the health promotion and disease prevention aspects of health care.

Through technical information will be provided in each of the training modules, the main focus will be on observation of proper case management in an actual OPD setting, and first-hand experience in treating children. Readings will be assigned and there will be ample opportunity for group discussion and problem-solving sessions.

The training will be cumulative and will begin with techniques for involving mothers in the assessment of a child's general condition. This will be followed by the development of skills for determining first a child's immunization and nutritional status, and then an assessment for diarrhoea, ARI or other conditions. This assessment will lead to the classification of a child's condition, for which appropriate management techniques will be selected and discussed. Treatment procedures will involve both the health provider and the mother or caretaker.

The course will help you apply the training described above in your daily work and prepare you to meet the challenge of making changes, and getting the required supervisory and administrative support, to improve case management for all children coming to your own health facility.

## **Involving Mothers in Primary Child Health Care**

Traditionally, child health care in Pakistan has focused on the treatment of disease. The Child Survival Project focuses on keeping children well or on helping them return to good health after they have been affected with an illness.

Central to this new philosophy of child care is the mother, who plays an indispensable role in keeping a child healthy, in recognizing the first signs of illness when it occurs and, once an illness has been diagnosed and treatment prescribed, in providing the required continuation of treatment at home. The mother or caretaker is also an invaluable source of information regarding the child's health history.

Pakistani mothers do not have the knowledge and skills in disease prevention, treatment and follow-up care to adequately care for themselves and their children. Yet, it has been recognized that adequate care cannot be provided for children without the co-operation of a well-informed mother or caretaker.

In order to teach mothers to participate in meeting their children's health needs, health care providers must first develop effective interpersonal communication skills. The majority of Pakistani mothers can neither read nor write. Instructions must be given in simple language and repeated time and time again. Simple demonstrations of procedures must be given. Mothers should be encouraged to repeat these instructions,

to ensure that there has been full understanding, and to carry out procedures under the watchful eye of a health provider until their competency in the procedure is certain. Most importantly, the instructions must be given kindly and patiently so as to gain the mother's trust and give her confidence in her own ability take a responsible role in the health care of her child.

The World Health Organization (WHO) has developed and tested simple, effective language and methods for diagnosis, treatment and follow-up care, which mothers can easily understand. This approach is particularly effective in the treatment of diarrhoea and respiratory infections. Assessment terms such as "history taking", "observation", "palpitation" and "auscultation" are replaced by the simple language of "asking", "looking", "feeling" and "counting". For examination, a stethoscope is replaced by use of senses we all possess. These approaches, because of their simplicity, can be taught to mothers, and used by mothers, to determine whether or not their child is sick.

In a nutshell, the Child Survival Program places great emphasis on the mother as an *information provider* and an *information receiver*, throughout the process of diagnosis, treatment and follow-up care in the four intervention areas.

### Using this Manual

This manual contains six modules on interpersonal communication, immunization, nutrition, diarrhoea and dehydration, acute respiratory infections and generic case management of a child coming to a health facility. Together they make up the course which will be conducted during your twelve days of training. The modules closely follow the format and content of World Health Organisation training materials.

Each chapter contains the following units:

**Unit A Learning Objectives.** The three objectives for each module contain the knowledge and skills which you will acquire in the course of your training, and the steps required in the planning process to improve services or case management in your own health facility.

**Unit B Practical Work.** This section contains the forms and guidelines which you will need for your hands-on-experience with mothers and children in the OPD during your training. It also includes a checklist to help you track your own progress through the course.

**Unit C Improving Case Management.** This unit provides guidelines for planning improvements in case management practices at your own facility. An exercise will help you plan changes in the physical arrangement of your facility, improvements in the practices of your staff, and strategies for obtaining necessary supplies and essential administrative support.

Integral to this course are additional materials produced by the World Health Organization, including: Immunization in Practice, Management of the Patient with Diarrhoea and Management of the Young Child with an Acute Respiratory Infection. You will be asked to read specific sections of these materials and to use the information in completing assignments, preparing presentations and participating in group discussions.

### **Taking Advantage of this Course**

This course gives you the chance to improve your knowledge about the treatment and prevention of conditions which most frequently kill children. It is also an opportunity to discuss medical and administrative issues with your colleagues. We urge you to take full advantage of this opportunity and to discuss any questions or problems you might have with a trainer at any time during the course. The trainer's job is to help you to acquire new skills in case management and to assist you in identifying the changes that will need to be made at your facility so that proper case management can be applied in all four child survival intervention areas.

In the medical field, knowledge doubles every ten years. Only by participating in courses such as this, reading medical journals and texts, attending conferences and discussing health questions with colleagues, will you succeed in keeping your skills and knowledge up-to-date.

## **I. INTERPERSONAL COMMUNICATION**

## A. TRAINING OBJECTIVES

As a result of the communication and counseling training module, the Medical Officer as the health team leader:

Applies the RUI Communication model by

- establishing *rapport* with patient, parent and other team members.
- demonstrating *understanding* by obtaining and using quality information from health team members.
- *influencing* team members in appropriate treatment.
- *educates* and *counsels* other team members in the use of communication and counseling to achieve objectives.

## Specific Topics Covered by Training Objectives

During the training you will work with other participants to identify the impact and increase your skills in communication and counseling for successful case management. Different methods will be used including group discussion, lecture, written materials, video taping, practice sessions, first hand experience including feedback from other participants, trainers, staff, patients and parents. On completion of this module, you will be able to answer basic questions about the following topics:

- \* Critical Communication Variables
- \* How to Establish Rapport
- \* The Elements and Impact of Nonverbal Communication
- \* How to Use "Active" Listening to Increase Understanding
- \* Steps to Use in Eliciting Complete and Accurate Information
- \* Steps to Use to Insure Provided Information is Accurately Understood
- \* The Use of Feedback to Empower Team Members including Parents and Child
- \* The Use of Feedback to Understand Your Own Impact on Others
- \* How the Use of the RUI Model Facilitates Counseling or Educating Team Members including Parents and Child
- \* The Role of the Medical Officer as the Center of Communication in the Unit and Achievement of Unit Objectives

## B. PRACTICAL WORK

Page	Materials in Section	Description
	Communication Process	Description of general components of the communication process.
	RUI Communication Model	Overview of Model with sub-elements on following pages.
	Rapport and Empathy	Key points in establishing.
	Nonverbal Communication	Elements and impact.
	Active Listening	Steps in process.
	Eliciting and Providing Information	Steps to follow.
	Feedback	Rules and process.
	Empowering Others	List of key variables.
	RUI Application Checklist	Checklist for you to complete during practical work to keep track of your progress.
	RUI Self Assessment Form	Form for you to complete to analyze your use of communication and counseling techniques in case management.

*NOTE: Graphics and Exhibits for each item above are under preparation.*

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## KEY POINTS IN USING THE RUI MODEL

**++ First, assess the situation, then enter the cycle at the most appropriate point.**

--Emergency: Start with Influencing, then Understanding and Rapport when time allows.

--Everything under control? Start with Rapport, then Understanding, followed by Influencing.

--The other person is very upset? Start with Understanding and Rapport, then move to Influencing.

**++ For best results always complete the cycle.**

In every interaction with another person, whether initiating or responding, we seek first their attention; then to be understood; and, in turn, to feel we have influenced them in some way. When the cycle is not complete, we (and they) feel a lack of closure and uncertainty. This leads to misperceptions, misunderstandings and mistakes.

**++ The Rapport--Understanding--Influencing cycle is a natural flow like natural breathing.**

Remember your patient, the parent or team member is also trying to establish Rapport, Understand and Influence you. Being in charge allows you to be more open. The other person's awareness of your power may increase their anxiety and, in turn, decrease their effectiveness in completing the cycle. Use your power to increase their effectiveness in communicating.

**++ Become more of who you are.**

Use the natural strengths of your personality. How you build rapport, show understanding and influence others will not be the same as your colleagues. You must feel comfortable with your own personality. Allow your own uniqueness to show. This will convey genuineness and sincerity to the other person.

**++ Bridge individual differences: Allow the other to be who they are.**

Part of the challenge in working with people is appreciating our differences. We each have our own unique personality based on inherited traits and life experiences. Although at times frustrating, these differences stimulate creativity and continued development.

## RUI COMMUNICATION APPLICATION CHECKLIST

**Instructions:** Observe the Medical Officer in his or her work with the patient and parent (or other team member). Assess the M.O.s ability to apply the each step of the RUI (Rapport--Understand--Influence) Communication Model. Mark your assessment to the right of each step. Add comments to further explain your assessment. Your assessment will help the Medical Officer increase his or her effectiveness in communicating with and counseling others.

Use the following ranking in your assessment:

- 5 = Extremely Proficient - No further improvement needed, uses skills flexibly and with ease.
- 4 = Very Proficient - Understands concept and applies with skill.
- 3 = Good - Understands the concept and skills are fair.
- 2 = Fair - Understands the concept, but skills are weak.
- 1 = Poor - Needs help in understanding the concept and how to apply this step.

Fill in the name of the person you are observing in the space beside "Medical Officer."

Put your name in the space beside "Observer."

For each step place the number that corresponds to your rank under the column marked "Ranking" then add your comments in the next column.

## RUI COMMUNICATION APPLICATION CHECKLIST

**Medical Officer:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Observer:** \_\_\_\_\_

CONCEPT	RANK	COMMENTS
<b>Overall</b> Assessed situation with other correctly and entered at appropriate point in the RUI cycle.		
Appeared natural using the strengths of own personality.		
Adjusted to other person's style and used appropriate measures (language, vocabulary, posture, voice tonality, etc.) to bridge individual differences.		
Personality Differences		
Status Differences		
Age Differences		
Gender Differences		
Education Differences		
Ethnic or Cultural Differences		
<b>Rapport</b> Established rapport with other as evident by other's responses.		
Expressed empathy for other.		
Nonverbal communication reinforced verbal communication.		

CONCEPT	RANK	COMMENTS
<p><b>Understanding</b></p> <p>Encouraged other to express wants.</p>		
<p>Probed to insure information provided by other is given fully and completely.</p>		
<p>Accurately reflected the other person's feelings.</p>		
<p>Accurately reflected the content of other person's message.</p>		
<p><b>Influence</b></p> <p>The other accurately reports the information the Medical Officer provided.</p>		
<p>Uses appropriate visual aids to reinforce important concepts.</p>		
<p>The other person is willing to act as the Medical Officer wants because it is consistent with what he or she values.</p>		
<p>The other has the skill to perform required tasks.</p>		



## USE OF RUI COMMUNICATION IN DIARRHEA & DEHYDRATION

Intake	Assessment	Treatment	Discharge
Greet child and parent and make comfortable	Assess dehydration.	Inform Parent and Child on proposed treatment.	Check understanding of symptoms to watch for and how to treat including when to return to clinic, if necessary.
Introduce Self and Staff	Share outcome of assessment with parent. Check for understanding and questions.	Teach parent how to prepare and administer ORS.	
Take History	Teach parent how to assess for dehydration.	Teach parent how to prevent Diarrhea & Dehydration - Personal Hygiene - Sanitation	If necessary, schedule next appointment.
Check parent's beliefs about how to treat diarrhea.	Provide parent basic information on purpose of ORS.	Insure proper Feeding and Nutrition - Breastfeeding - Foods	Ask for and respond to any questions.
Ask about concerns.	Respond to concerns.	Instruct on treatment of other symptoms (vomiting)	Thank both parent and child for coming. Say Good-bye.
	<-----	<b>Influence</b> -----	----->
<-----	<b>Understanding</b> -----	-----	----->
<b>Rapport</b> -----	-----	-----	----->

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## USE OF RUI COMMUNICATION IN ACUTE RESPIRATORY INFECTION

Intake	Assessment	Treatment	Discharge
Greet child and parent and make comfortable	Assess child's condition. Ask 6 basic ARI questions. Observe and listen to child for 7 ARI signs.	Inform and instruct parent on selected treatment. Check for possible allergic reactions to drugs. Ask about any concerns.	Check understanding of possible reactions and how to treat including when to return to clinic, if necessary.
Introduce Self and Staff	Share outcome of assessment with parent. Check for understanding and questions.	Treat child.	Insure parent knows how to administer medication.
Take History	Teach parent how to assess for ARI.	Check that parent understands, is motivated and skilled in home care.	Schedule return appointment, if necessary.
Ask about concerns.	Respond to concerns.	<ul style="list-style-type: none"> <li>- Fever</li> <li>- Wheezing</li> <li>- Draining Ear</li> <li>- Fluid and Nutritional Needs</li> </ul>	Ask for and respond to any questions.
Rapport----- <-----	-----< Understanding----- -----	Influence----- ----- -----	-----> -----> ----->

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## 2. IMMUNIZATION

## **A. TRAINING OBJECTIVES**

### **I. Training Objectives for Increased Knowledge of Immunization of Children Under Five Years of Age and Women of Child-bearing Age.**

During the training you will receive knowledge on six vaccine-preventable diseases, and the Government of Pakistan's Immunization Policy.

On completion of the training you will be able to:

1. Name six vaccine-preventable diseases and be able to recognize the signs and symptoms of each.
2. Describe the Government of Pakistan's policy on immunization of children under five years of age and of married women of child-bearing age.
3. State the Government of Pakistan's immunization schedule for children and married women of child-bearing age.
4. Describe what causes tetanus, how a person contracts this infection and how to prevent tetanus infections.
5. List signs and symptoms of six vaccine-preventable diseases, and demonstrate how you would manage a case of measles, tetanus, polio, TB, diphtheria or whooping cough that is brought to your facility.
6. List the range of temperature at which each vaccine is kept.
7. Describe what vaccines are made from.
8. Describe what damages vaccines.
9. Describe how to test DPT & TT vaccine for damage.
10. Describe correct ways to store vaccines in a refrigerator.
11. Describe routes for giving each of the six vaccines, as well as dosages and sites. Describe how you would explain this to a mother.
12. Describe common side effects from vaccines, how to manage them, and what you would tell a mother.
13. Describe proper arrangement of work stations and waiting area.

## **II. Training Objectives for the Development of Skills in Case Management of Immunization of Children under Five and Women of Child-bearing Age.**

During the training you will develop the following skills by observing, by practising under supervision and by carrying out procedures independently.

By the end of your training, you will be able to:

1. Determine the immunization status of a child under five years of age from history and then possibly verifying with immunization card and observation of BCG scar.
2. Determine the immunization status of married women of child-bearing age and verify.
3. Counsel mothers on immunization needs for themselves and their children. After counselling, mothers will understand what is required for their families to be fully immunized. They will know what immunization will be given on this visit and when to return for the next vaccine.
4. Administer each of the six vaccines, giving correct dose and using correct route and site.
5. Counsel mothers on expected side effects from vaccines and how to manage them at home.
6. Fill in EPI Register and immunization card correctly.
7. Perform a shake test to identify and discard a damaged vaccine.
8. Identify properly and improperly stored vaccines in a refrigerator.
9. Identify vaccines which are damaged or no longer potent.
10. Reconstitute freeze-dried vaccines.

### **III. Training Objectives for Improving Immunization Services to Children Under Five and Women of Child-bearing Age.**

Once you have acquired the knowledge and skills needed for providing an effective immunization service, you will apply this expertise to planning the improvement of the immunization service offered to children and women at your own facility.

By comparing the immunization service at the training facility with that at your health facility, you will be able to:

1. Identify weaknesses in your facility's immunization service in terms of procedures, the physical arrangements and the practices of your staff.
2. Prepare a plan for improving the immunization service at your facility.

## B. PRACTICAL WORK

### Immunization Schedule for Children with Dose and Route of Administration

Vaccine	Dose	Route	Age
BCG	0.05 ml or	intradermal	at birth
	0.1 ml	intradermal	after one year of age
Polio	2 drops/dose*	oral	at six week at 10 weeks at 14 weeks booster 20-23 months
D.P.T	0.5ml**	intramuscular	at 6 weeks at 10 weeks at 14 weeks Booster at 20-23 months
Measles	0.5ml	subcutaneous	9 months or soon after

- \* Check dose according to instructions on label/folder
- \*\* Children having some reaction to first injection of D.P.T should be given D.T. in future.

There is no contraindication for vaccination except when the child is so seriously ill that he/she requires hospitalization.

For all unimmunized children 2-5 years old, give two doses of D.T. (0.5 ml/dose), two doses of Polio and one dose of Measles. **There must be at least a one month interval between each polio and D.T. vaccination.** Also give one dose of BCG (0.1 ml/dose) if no BCG scar is present.

## Tetanus Immunization Schedule for Women

Dose	When to give
TT 1	At first contact or as early as possible during pregnancy
TT 2	At least four weeks after TT 1
TT 3	At least six months after TT 2, or during subsequent pregnancy
TT 4	At least one year after TT 3, or during subsequent pregnancy
TT 5	At least one year after TT 4 or during subsequent pregnancy

DOSE: 0.5ml each time      Check manufacturer's instructions

ROUTE: Intramuscular injection in the upper part of left arm

Immunization Card for Children and Women of Child-bearing Age

ریکارڈ حفاظتی ٹیکہ جات

تاریخ جب ٹیکہ لگایا گیا											تاریخ پیدائش یا عمر	نام		
ٹی ٹی		ڈی ٹی		خسرہ	ڈی پی ٹی			پولیو					پیدائشی	
II	I	بوستر	II		I	بوستر	III	II	I	بوستر	III	II		I

## Checklist of Clinical Skills in Vaccination

For each vaccine given during your practice session place a tick (✓) in the box corresponding to the vaccine. At the end of training, add up the tick marks and write down the total numbers.

Vaccine	Number of vaccinations observed	Number given under supervision	Number given independently
POLIO			
BCG			
DPT			
DT			
MEASLES			
T.T			
Total			

## C. IMPROVING IMMUNIZATION SERVICES FOR CHILDREN AND WOMEN

### Participant Instructions for Improving Immunization Services

As we near the completion of this module, it is time for you to focus your thoughts, and your energies, on what you will do to improve immunization services for women and children at your own health facility.

You will begin by formulating the criteria for an effective immunization service such as you have witnessed here during your training. You will then compare the training facility with the one in which you work, and consider the changes which could be made to improve your facility's immunization service. Finally, you will be asked to prepare a plan for your facility, outlining the required changes and ways and means of bringing these changes about.

Towards the end of the course, you will refer to the criteria you have determined for an effective immunization service, along with the criteria you will have formulated for the other intervention areas, and you will design an overall floor plan for your facility.

At this point in the course, however, you should focus your attention on how to improve your immunization service. The following exercise provides steps to guide you in the process of determining what changes are required and how to go about making them.

#### Step 1

Think about the physical set-up for immunization at the training facility.

- Where is the waiting area?
- Where are patients assessed for immunization status?
- Where do patients receive immunization counselling?
- Where does the immunization take place?
- What are the special criteria for each area (i.e. amount of space, quietness, proximity to toilet or other area)?
- What furnishings does each area require?
- Are staff and patients able to move about without confusion?
- Where are supplies stored? Vaccines?

Compare the set-up, point by point, with that at your facility. Which areas in your facility function just as well? Which do not? Could you rearrange your facility to make more space or improve the effectiveness of the available space? Remember that there are many workable arrangements. It is effectiveness and efficiency that you are working towards.

How many people would be coming through your clinic per day for immunizations? Consider patient flow and list the physical requirements of each of the immunization areas listed above.

## Step 2

Consider the operation of the immunization service at this training facility.

- What were the roles and tasks of MOs, vaccinators, nurses, LHVs, other staff, mothers?
- What specific skills did each need in order to carry out his or her tasks effectively?
- What supplies and equipment were used in the immunization process?

Now consider your facility. Are persons coming for immunization at your clinic managed differently? Which health workers are doing comparable tasks at your facility? Are there any who could do with additional training? Specifically, what training is required? Will some staff need to be assigned additional duties? What supplies and/or equipment should you be ordering for your clinic?

## Step 3

Draw up a list of the physical, procedural and staffing (including training) changes required to improve the immunization service at your facility. Whose supervisory or administrative support will you need in order to make these changes?

## Step 4

With the above information make an action plan for improving your immunization service. (Use the Action Plan form on the following page). Your final plan will include the list of changes you wish to make, and, for each change, the steps you will take and the people you will involve to make it happen.

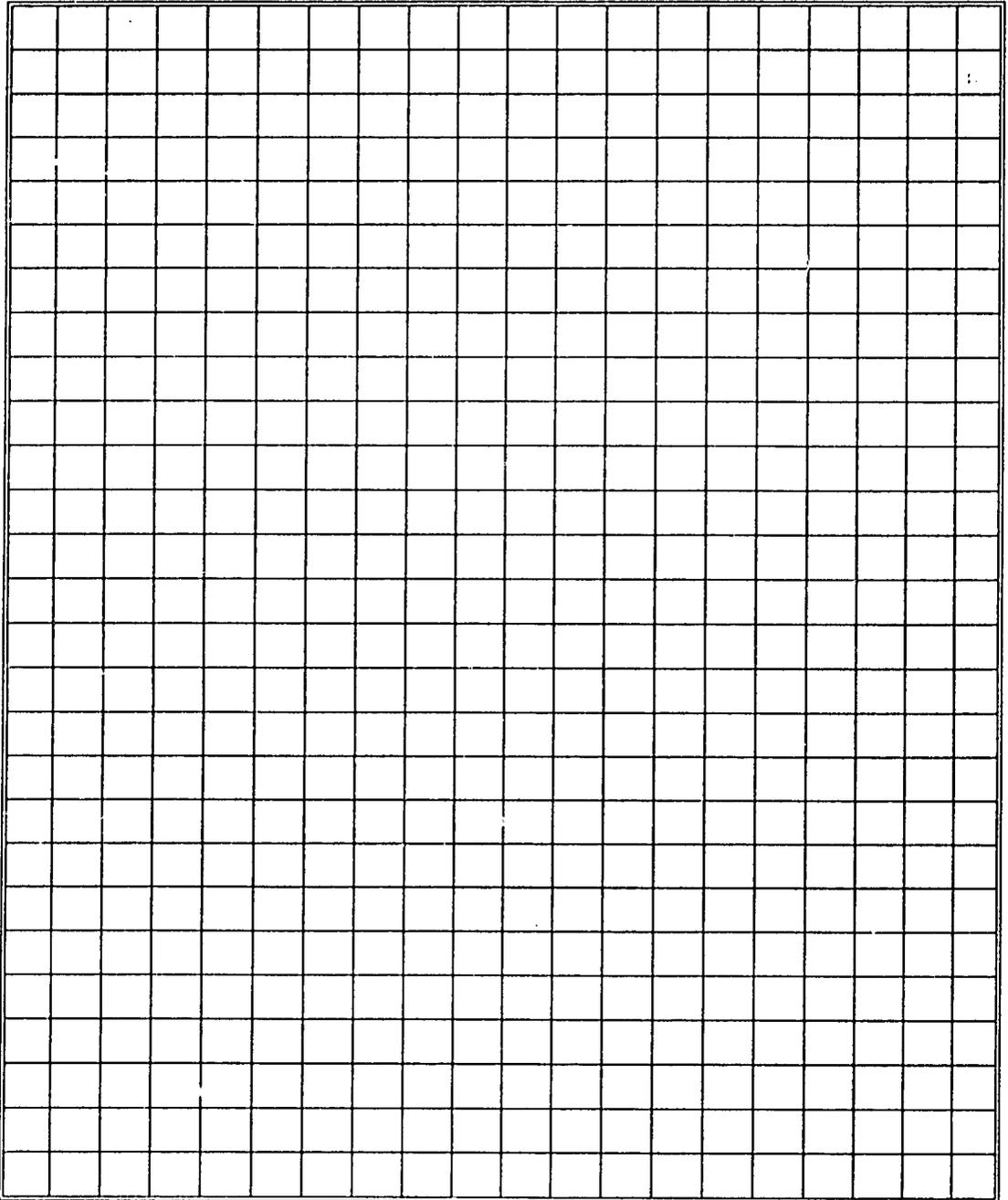
Make some rough preliminary sketches of how an improved immunization area might look in your facility, keeping in mind the space required for other services. (A sheet of graph paper is provided on page 27 for this purpose). Later, ideas from these sketches will be incorporated into a final floor plan for your health facility.

Class time will be provided for a group discussion on changes and ways to accomplish these changes during the last two days of training.

**Action Plan Form  
for Improving Immunization Services**

	Change Needed	Action	Individual responsible	Other staff or officials involved	Resources supplies	Starting & completion dates
Physical set-up						
Procedures						
Staffing/Training						

# Floor Plan Worksheet



## Resources, Equipment and Supplies for Immunization

### 1. Resource Material

- Immunization in Practice: A Guide for Health Workers Who Give Vaccines. World Health Organization (Oxford University Press, 1989).
- Participant's Manual for Child Survival Training Course for Medical Officers of First Level Care Facilities. (PCSP, BHS Cell, Government of Pakistan). Draft (1991)
- Trainers Manual for Child Survival Training Course. (PCSP BHS Cell, Government of Pakistan). Draft (1991)
- W.H.O Wall Chart: Standard Guidelines for Immunization (Ministry of Health, Government of Pakistan, 1989).

### 2. Forms/Registers

- EPI/Permanent Register: Vaccination
- EPI Register: Daily Performance
- Immunization cards for child and mother.

### 3. Equipment

#### *Cold Chain*

- Refrigerator
- Ice packs
- Vaccine carrier
- Thermometer to record temperature
- Temperature record chart

#### *For Sterilization*

- Steam sterilizer or boiling pan
- Small container for needles
- Stove

- Matches
- Timer clock

#### *For Injections*

- Syringes - 5cc, 0.5cc, 1.00cc
- Needles for mixing, intramuscular, subcutaneous, and intradermal.
- Forceps - 2 pairs
- Small tray with lid to place syringes
- Metal file to open ampoules
- Small dishes for swab (Two small dishes for swabs, one dry, one with spirit)
- Cotton (To clean and press infection site)
- Cotton cloth to hold ampoules

#### *For Cleaning*

- A bowl to soak used syringes and needles
- Box or bag to collect trash
- Box to take garbage away
- Handwashing items - soap, water, clean towel etc.

#### 4. Vaccines

- Tetanus Toxoid
- Polio Oral Trivalent
- B.C.G. Vaccine (Dried)
- D.P.T. Vaccine
- Diphtheria and Tetanus Vaccine
- Measles Virus Vaccine (Live, Attenuated, Dried)

### **3. NUTRITION**

The Nutrition Module Participant's Manual for the Child Survival Training Course is provided for you under separate cover.

## 4. DIARRHOEA AND DEHYDRATION

- \* Information in this section has been taken directly from the WHO Diarrhoea Management Training Course: *Guidelines for Conducting Clinical Training Courses at Health Centres and Small Hospitals.*

## **A. TRAINING OBJECTIVES**

### **I. Training Objectives for Increased Understanding of Diarrhoea and Diarrhoea Case Management**

During the training, you will receive information which will increase your understanding of diarrhoea, its management, and related issues through written instructions, presentations, first hand experience, talking with staff, and reference articles. On completion of the training, you will be able to answer basic questions about the following topics:

#### **1) Principles of Clinical Management of Acute Diarrhoea**

- Diarrhoeal dehydration
- How ORT works
- Formulation of ORS solution
- Effectiveness of ORS solution
- Convincing mothers to use ORT
- Advantages of ORT over IV therapy
- Reasons for failure of ORT
- Using fluids to prevent dehydration
- Feeding during and after diarrhoea
- Antimicrobials and other drugs

#### **2) Management of Diarrhoea**

- Assessment of the patient and degree of dehydration
- Early home treatment of diarrhoea to prevent dehydration (Treatment Plan A)
- Treatment of some dehydration using ORS solution (Treatment Plan B)
- Treatment of severe dehydration using IV therapy (Treatment Plan C)
- Associated conditions
- Treatment of dysentery, cholera, and persistent diarrhoea
- Other problems

#### **3) Prevention of Diarrhoea**

- Breast-feeding
- Improved weaning practices
- Use of plenty of clean water
- Handwashing and use of latrines
- Proper disposal of stools of young children
- Measles immunization

## **II. Training Objectives for the Development of Skills in Diarrhoea Case Management.**

During the training, you will develop the following case management skills by practising them under the supervision of the instructor and other staff:

### **Assessment**

1. Assess diarrhoea cases to:
  - a) determine extent of dehydration,
  - b) identify other problems (e.g., dysentery, persistent diarrhoea, severe undernutrition, fever) that require treatment or referral.
2. Select an appropriate treatment plan for preventing or treating dehydration.
3. Determine if treatment or referral is needed for other problems.

### **Treatment of Non-dehydrated Cases (Treatment Plan A)**

Teach each mother management of diarrhoea at home (fluids, food and signs that indicate a child should be brought to a health worker).

**Note:** If it is the policy to give ORS packets to mothers of children who do not have signs of dehydration, participants should demonstrate and teach mothers how to mix and administer ORS solution.

### **Treatment of Cases with Some Dehydration (Treatment Plan B)**

1. Treat cases:
  - a) Examine patient, determine amount of ORS solution to be given in first 4 hours.
  - b) Discuss findings and recommendations for treatment with the instructor.
  - c) Begin administering ORS solution and teach mother to administer the ORS solution.
  - d) Encourage the mother to continue breast-feeding.
  - e) Monitor patient's progress regularly and record findings every 1-2 hours until patient is rehydrated; reassess after 4 hours; select Plan A, B or C to continue treatment.

- f) When there are no signs of dehydration, determine amount of ORS solution to be given at home and advise the mother accordingly.
2. Mix oral solution by packet or in bulk volume.
3. Deal with difficulties administering ORS solution (such as vomiting).
4. Supervise mothers, nurses, and other staff giving ORS solution.
5. Encourage the mother to continue breast-feeding and to offer food to the child after 4 hours. (If possible, the facility or other family members present at the facility should be encouraged to provide food to children who remain at the facility for 4 hours or more).
6. Before a mother leaves, teach her how to continue caring for her child at home and to recognize the signs that indicate she should bring her child back. Also explain how she can treat diarrhoea the next time it occurs.

#### **Treatment of Severely Dehydrated Cases with IV (Optional)\***

1. Assess patients with severe dehydration:
  - a) Take history and read any medical records or notes.
  - b) Examine case.
  - c) Determine amount of fluid required.
  - d) If there will be a delay in putting in the IV, and if the patient can drink, begin ORS solution while waiting for IV.
  - e) Discuss findings and recommendations for treatment with staff.
2. Administer intravenous therapy.
3. Assess patient's progress periodically and record findings every 1-2 hours until patient is rehydrated. When the patient can drink, also give ORS.
4. After 6 hours (infants) or 3 hours (older patients), reassess the patient and choose Plan A, B, or C to continue treatment.
5. Before the child is discharged from the facility, be sure that the mother is taught how to continue caring for her child at home and to recognize the signs that indicate she should bring her child back. Also explain how she can treat diarrhoea the next time.

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\* This objective is only for those participants who have previously been trained to administer IV therapy and who will use IV in their facilities after the course.

### **Treatment of Other Problems**

1. If blood is present in the stool, treat with an antibiotic. Teach the mother how to feed the child and when to bring the child back. If needed after 2 days, change to another antibiotic.
2. If diarrhoea has lasted at least 14 days, refer dehydrated child or child less than 6 months to a hospital. For other children teach the mother how to feed the child and tell her when to bring the child back.
3. If the child has severe undernutrition as defined in the Nutrition Module, refer the child to hospital.
4. If there is fever, give paracetamol. If there is falciparum malaria in the area and a child has fever or history of fever, give an antimalarial.

### **III. Training Objectives For Improving Diarrhoea Case Management**

After having acquired the knowledge and skills for effective diarrhoea case management, you will make a plan to improve diarrhoea case management at your own facility.

By comparing the management of diarrhoea at the training facility with that at your own facility, you will be able to:

- 1) identify weaknesses in your facility's diarrhoea case management, in terms of attitudes, operating procedures, the skills of your staff and the physical arrangement of the facility itself.
- 2) prepare an action plan for improving diarrhoea case management at your facility, outlining how you will accomplish the following:
  - obtaining necessary supplies
  - training other staff in ORT techniques
  - overcoming pressure from staff and patients to use IV therapy and unnecessary drugs.
- 3) Determine the criteria for an efficiently arranged diarrhoea treatment area. Later in the training you will be asked to make a floor plan of your facility, incorporating areas for each of the services offered at your facility.

## B. PRACTICAL WORK

### Diarrhoea Case Record Form\* (for completion during practical work)

#### Assessment

1. Patient's Name: \_\_\_\_\_

Age: Years \_\_\_\_\_ Months \_\_\_\_\_ Sex: \_\_\_\_\_

2. Signs of dehydration (circle signs and symptoms)

<p>1. LOOK AT: CONDITION</p> <p style="text-align: center;">EYES</p> <p style="text-align: center;">TEARS</p> <p style="text-align: center;">MOUTH and TONGUE</p> <p style="text-align: center;">THIRST</p>	<p>Well, alert</p> <p>Normal</p> <p>Present</p> <p>Moist</p> <p>Drinks normally, not thirsty</p>	<p>* Restless, irritable*</p> <p>Sunken</p> <p>Absent</p> <p>Dry</p> <p>* Thirsty, drinks eagerly*</p>	<p>* Lethargic or unconscious; floppy.</p> <p>Very sunken and dry</p> <p>Absent</p> <p>Very dry</p> <p>* Drinks poorly or not able to drink*</p>
<p>2. FEEL SKIN PINCH</p>	<p>Goes back quickly</p>	<p>* Goes back slowly*</p>	<p>* Goes back very slowly*</p>
<p>3. DECIDE</p>	<p>The patient has NO SIGNS OF DEHYDRATION</p>	<p>If the patient has 2 or more signs, including at least one *sign*, there is SOME DEHYDRATION</p>	<p>If the patient has two or more signs, including at least one *sign* there is SEVERE DEHYDRATION</p>
<p>4. TREAT</p>	<p>Use Treatment Plan A</p>	<p>Weigh the patient, if possible, and use Treatment Plan B</p>	<p>Weigh the patient and use Treatment Plan C URGENTLY</p>

3. Other problems

#### Treatment

4. Treatment Plan selected: \_\_\_\_\_

5. If Plan B or C selected, weight of child: \_\_\_\_\_

6. If Plan B, amount of ORS solution to be given in first 4 hours: \_\_\_\_\_

7. If Plan C, amount of Ringer's Lactate to be given:

\_\_\_\_\_ in first \_\_\_\_\_ minutes \_\_\_\_\_ in next \_\_\_\_\_ hours

8. Other medications ordered and dosages prescribed:

\_\_\_\_\_

\* A separate form should be used for each child. These will be provided by your trainer.

## Response to Treatment

CLINICAL STATUS	Hours After Admission			
	At 2 Hours	At 4 Hours	At 6 Hours	At 24 Hours
General Condition				
Eyes				
Tears				
Mouth and Tongue				
Thirst				
Skin Pinch				

CLINICAL STATUS	Hours After Admission			
	From 0 to 2 Hours	From 2 to 4 Hours	From 4 to 6 Hours	From 6 to 24 Hours
Number of stools				
Episodes of vomiting				
ORS solution consumed, volume				
IV fluid given, volume				
Food eaten (including breast milk)				
Medicines taken				

## Counselling at Time of Discharge

Amount of fluid to be given in next 24 hours:

Other instructions on immunization and nutrition given to the mother. Check on mothers's initial reasons for coming to facility.

**Comments:** *(Note any difficulties and how they were managed; other interesting aspects of the case and its management; questions for later discussion).*

## **Important Points about Case Management**

- ❖ The best way to learn about ORT and how patients respond is to check a dehydrated patient repeatedly during the entire 4 hour (or longer) course of therapy.
- ❖ You need to know the signs of dehydration very well. Try to see as many dehydrated patients as possible, to learn how the signs can appear in different children.
- ❖ Observe the different possible methods for administering ORS solution (cup, cup and spoon). Administer the solution at the appropriate rate (a teaspoonful every 1-2 minutes for a child under 2 years, frequent sips from a cup for an older child).
- ❖ Mothers should be involved in giving oral therapy to their children. You should teach mothers what to do. Be helpful and encouraging.
- ❖ The volumes and rates of administration recommended for oral and IV fluids are approximate. Pay attention to how the patient's response must be monitored, and how the rate and volume of fluid needs to be adjusted as appropriate.
- ❖ When vomiting occurs, the mother should stop giving ORS solution for 5-10 minutes and then begin again, but more slowly (for example, a spoonful every 2-3 minutes). The mother should be reassured that the solution is helping the child and should be continued.
- ❖ It is important to continue breast-feeding during diarrhoea. Dehydrated infants should be breast-fed while receiving ORS solution. Infants under 6 months who are not breast-fed should receive 100-200 ml clean water while receiving ORS solution.
- ❖ Ask and look for other problems (blood in stool, diarrhoea for at least 14 days, severe undernutrition and fever), and treat according to the treatment chart.
- ❖ Children who remain at a treatment facility more than 4 hours should be offered food.

## Checklist of Clinical Skills

Participant's Name \_\_\_\_\_

CLINICAL SKILLS	CASE NAME AND DATE				
Assess dehydration					
Assess other problems					
Select treatment					
Teach mother to treat diarrhoea at home					
Determine amount of oral fluid for first 4 hours					
Administer ORS solution					
Teach mother to administer ORS solution					
Deal with difficulties in administering ORT					
Show the mother how much ORS solution to give at home					
For severe dehydration determine amounts of IV fluid for first 3 (or 6) hours [Optional]					
Give IV therapy [Optional]					
Treat other problems					

## C. IMPROVING CASE MANAGEMENT

### Participant Instructions for Improving Diarrhoea Case Management

You have learned to manage cases of diarrhoea using the safest and most effective procedures. You now have the responsibility of using the procedures in your own facility and improving the practices of others.

Convincing others at your facility to change their case management procedures for patients with diarrhoea will be a challenge. It will require more than telling them what they should do. You will need to train certain staff members, and you may need to enlist the support of others. You will have to obtain additional supplies, and rearrange treatment areas.

To prepare for this challenge, you should plan what changes will be made and how you will accomplish them. In the following exercise you will develop a plan and get suggestions from the instructors and other participants who are facing similar situations.

Think about the areas where patients are assessed and treated at this training facility and compare them with your own facility. There are many possible arrangements. Each health facility should work out the best arrangement for its needs. This will depend on the number of diarrhoea cases coming to the facility and its size and capabilities. For example, some may have a large case load and some may see only a few children per day.

#### STEP 1

Make a list of changes that should be made at your facility to improve case management.

Study pages 46 to 49, which describe possible arrangements for diarrhoea case management, and select the more appropriate type for your facility. Remember that the objective is not to change your facility to be exactly like any of those described. Rather, it is to make only those changes necessary to improve diarrhoea case management.

Make a list of changes that need to be made in your facility to improve diarrhoea management. For example, some changes might be to convince higher-level staff that ORT is effective and feasible, and to obtain supplies of ORS. The questions below will help you identify areas of possible change.

- Think about what you have seen at this training facility. What did doctors, nurses, other staff and mothers do to treat diarrhoea? Are patients with diarrhoea managed differently at your facility? If so, what should be done differently to give patients better care?
- Who must be trained, and specifically what must they be trained to do?

- Will staff at your facility be adequate for the expected case load? Will some staff need to be reassigned to different schedules or work areas?
- What supplies and equipment were used at this facility to treat patients with diarrhoea? What supplies or equipment need to be obtained for your facility? (Refer to the list of supplies on pages 53 and 54.)
- Did the floor plan at this facility allow mothers to sit comfortably while they administered ORT? Were staff able to move about without confusion? Does your facility's floor plan need to be changed to make more space or to improve the arrangement of space?
- Do the policies of your facility interfere with proper treatment (e.g., are mothers prevented from staying with their sick children or are facility hours inconvenient for mothers)?
- How can you ensure that children with diarrhoea who stay at your facility for several hours are fed?

## STEP 2

At this point you should also make some rough preliminary sketches of how the floor plan of an improved diarrhoea assessment and treatment area would look. (Graph paper is provided on page 45). As you do this you must consider the available space in your facility and the areas which will be taken up by reception counselling, immunization services and ARI case management.

Draw in the furniture and equipment that you have now and that you want to obtain. Be sure that your floor plan is arranged in a sensible and convenient way.

As you draw the floor plan, think about:

- numbers of patients and family members expected
- adequacy of the space available
- types and arrangement of furnishings
- patient flow
- movement of doctors, nurses, and other staff
- storage for supplies
- access to toilet and washing facilities

### **STEP 3**

Review your list of changes and floor plan with an instructor and other participants, and discuss how to accomplish changes.

Draw up a list of the changes which should be made in diarrhoea case management in your facility in terms of operational procedures, reassignment and training of staff, and physical set-up of the diarrhoea management area. Try to share this information with a trainer or with your colleagues. There will be a class session provided in the last two days of training for group discussion about how to make improvements at your facility.

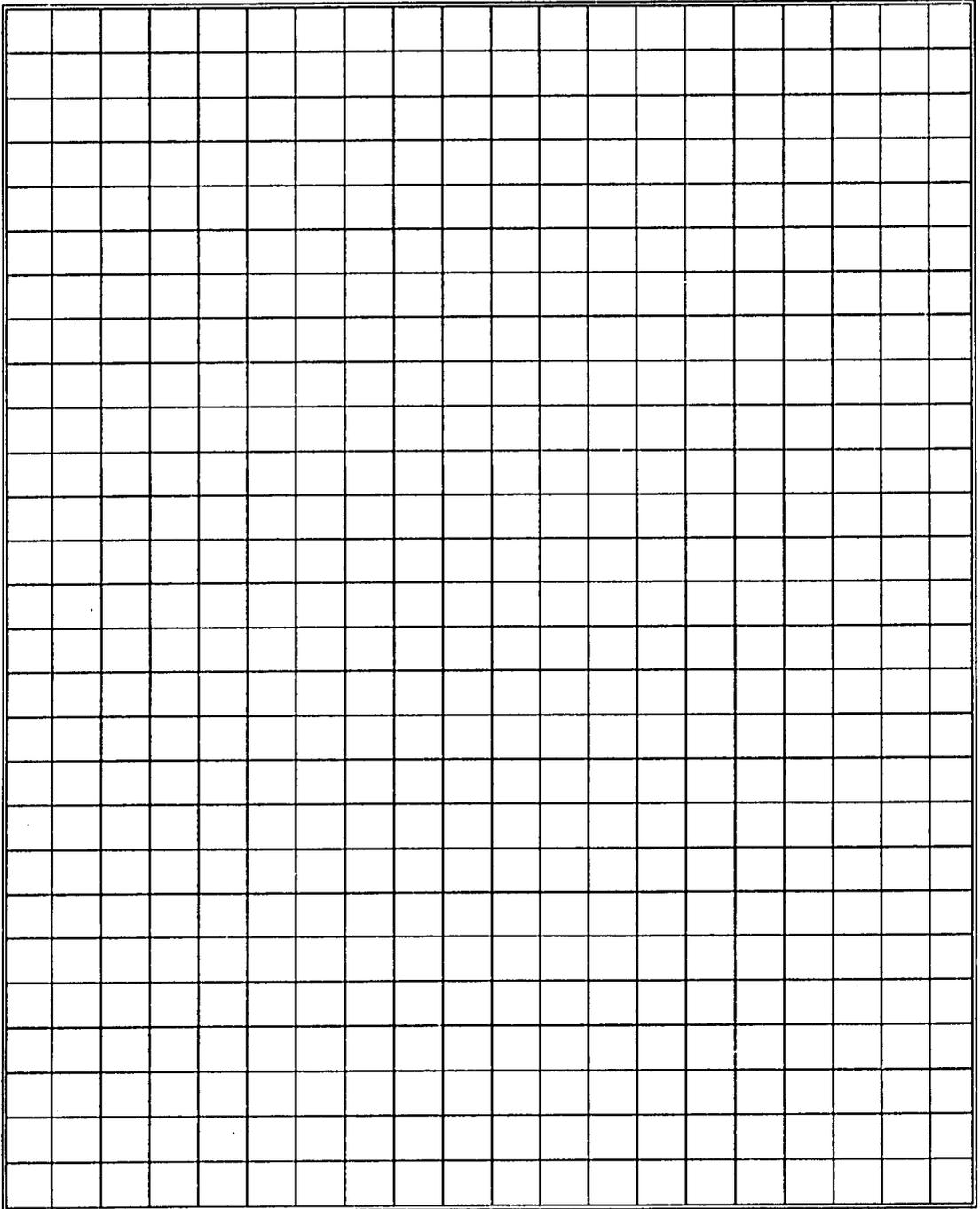
### **STEP 4**

Make an action plan for improving diarrhoea case management at your facility (use the form on the next page). Your plan should list the important changes that you will make and, for each change, the steps required accomplish them. During the next training module you will have the chance to discuss your ideas with your colleagues. You will then incorporate these ideas into a final action plan and floor plan for your facility.

**Action Plan Form  
for Improving Diarrhoea Case Management**

	Change Needed	Action	Individual responsible	Other staff or officials involved	Resources supplies	Starting & completion dates
Physical set-up						
Procedures						
Staffing/Training						

**Floor Plan Worksheet**



### **ORT Corner**

An ORT corner is a small area with one or two chairs and a small table where a mother can sit comfortably for 4-6 hours while she administers ORT to her dehydrated child. It might be in a corner of a small health centre, in the hall or on the porch. A staff member would check on the mother from time to time as he/she continues to see other patients. This arrangement is appropriate for a small diarrhoea case load.

### **Assessment and Treatment Area**

An assessment and treatment area is the multipurpose out-patient area in a health centre where mothers and children are seen for all sorts of illnesses and injuries. Children with most problems (e.g., acute respiratory infection, minor injury) are treated and then sent home; others, with more serious problems, are referred.

Children with diarrhoea and dehydration remain in this area for 4-6 hours for treatment with ORT. There is adequate space and furniture, such as benches and tables, for five or more mothers to stay and administer ORT to their children. There are several staff to supervise these mothers and to continue to see other patients. There may be a few beds where some children could receive IV therapy until they are ready for ORT. Complicated cases would be referred for admission.

This arrangement is appropriate for a health facility with a moderate diarrhoea case load which does not have the space or need for a separate room for ORT.

## How to Set Up an ORT Corner

A special place in a small facility or health centre should be arranged for oral rehydration therapy. This is needed because a mother and her child who needs ORS will stay at the health centre for several hours. A conveniently located and adequately equipped "ORT corner" will help the staff to manage a dehydrated case more easily.

1. Select the location for the ORT corner. This should be a place that:
  - staff frequently pass by, so that they can observe the child's progress and encourage the mother. (e.g. near the reception area or examination room, or on a porch, but not in a crowded passage);
  - is near a water source;
  - is near a toilet and washing facilities; and
  - is pleasant and well-ventilated.
2. Arrange furniture in the ORT corner:
  - a table for mixing ORS solution and holding supplies,
  - shelves to hold supplies,
  - a bench or chairs with a back where the mother can sit comfortably while holding the child,
  - a small table where the mother can conveniently rest the cup of solution.
3. Organize supplies in the ORT corner. (The supplies listed below are for a health centre that receives 12-15 diarrhoea cases a week).
  - ORS packets ( a supply of at least 60 packets a month)
  - 3 bottles that will hold the correct amount of water for mixing the ORS packet — including some containers that are the same type that mothers will have at home.
  - 3 cups
  - 3 spoons
  - 2 droppers (may be easier to use than a spoon with some infants)
  - Soap (for handwashing)
  - Waste basket
4. Display posters about diarrhoea and other health messages.

Posters on the walls of the ORT corner about treatment and prevention of diarrhoea and dehydration will be particularly interesting to mothers. Since mothers will sit in the ORT corner for a long time, it is a good opportunity for them to learn from posters about ORT and other important interventions such as breast-feeding, weaning foods, use of clean water, handwashing and use of latrines. Also include posters with information on immunization.

## **Description of Diarrhoea Treatment in a Multipurpose Assessment and Treatment Area**

The area described is a multipurpose out-patient area where mothers and children are seen for all sorts of illnesses and injuries. Children are first assessed and a diagnosis is made. If the child has diarrhoea and is dehydrated, he/she remains at the health centre for ORS. Children with most other problems (e.g., acute respiratory infections, minor injuries, malaria) are either treated and sent home, or referred for admission.

If there are one or two beds in this area and the staff is trained to give IV therapy, severely dehydrated patients could be given IV. As soon as they are able to drink, ORS solution is given in addition to IV therapy. Complicated diarrhoea cases would be referred.

This description focuses on the essential aspects of diarrhoea case management in a multipurpose assessment and treatment area. See the example floor plan on page 50.

1. Simple benches are available for people waiting to be seen.
2. All cases are registered, assessed and classified for treatment. Patients that need to be admitted are sent to the in-patient ward or referred to another facility.

For treatment of diarrhoea cases:

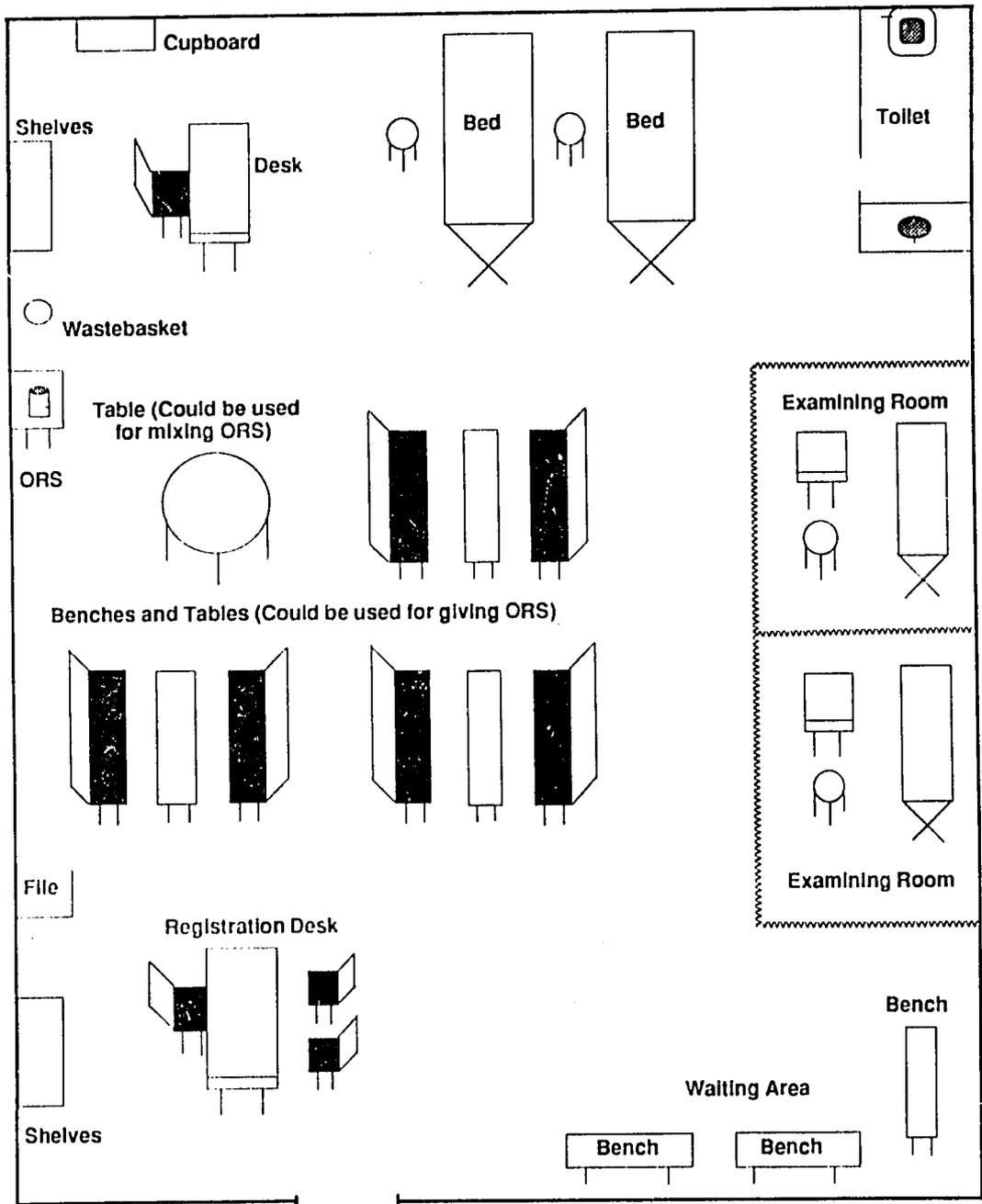
3. Mothers of diarrhoea cases without signs of dehydration are taught how to treat diarrhoea at home. They practice mixing and administering ORS. They learn to recognize the signs that indicate the child should be brought back to the health worker.
4. Mothers of dehydrated children are asked to stay with their children to give ORS and continue breast-feeding with the supervision and encouragement of staff. They are taught how to give ORS, continue ORS at home, feed during and after diarrhoea, and recognize the signs indicating that a child should be brought back to a health worker.
5. Comfortable benches (or other seats like chairs or mats) with side tables are provided for mothers giving ORS. There is space for movement of health staff, patients and mothers.
6. Treatment is provided to diarrhoea cases with other problems, such as dysentery, which do not require admission. Antibiotics are used only as needed; antidiarrhoeal drugs are never used.
7. IV therapy followed by ORT may be provided to severely dehydrated cases which do not require admission.
8. Before diarrhoea cases leave the facility, staff make sure that they have attended to any other health problems or concerns.

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\* Whether IV therapy can be provided and the complications which can be treated will depend on the policy of the facility, training of staff and the available supplies. All cases which cannot be treated would be referred.

9. ORS solutions are mixed from packets (or in larger volumes if the number of patients needing ORS solution is sufficient).
10. There is adequate ventilation (e.g., fans) and access to toilet and washing facilities.
11. Appropriate supplies are available in adequate quantities. The supplies are taken out of the storage area and arranged each morning so that they will be convenient to use.

**FLOOR PLAN**  
*Multipurpose Assessment and Treatment Area*



## **Examples of Changes Needed to Improve Diarrhoea Case Management and Ways to Accomplish Them**

1. *Change needed:* Train all the nurses and aides to administer ORT and to teach mothers how to treat diarrhoea at home.

*How to accomplish it:* With the help of the head nurse, conduct a training session to explain to nurses how to treat cases of diarrhoea, including how to use ORT, and the role of the aide and the mother. Teach the nurses how to assess dehydration and when ORT is appropriate. Demonstrate how to give ORT, how to teach the mother to give it, and how to teach mothers to care for the child at home. Conduct a role play or have all the nurses observe while the head nurse teaches a mother. During the next days, supervise nurses carefully as they treat diarrhoea patients. Give guidance as needed until they can all treat patients correctly.

Conduct a similar training session for aides, emphasizing their interaction with mothers. Have the nurses supervise them carefully when they work with diarrhoea patients.

2. *Change needed:* Make a place where five or more mothers can sit with their children and administer ORT with supervision from health staff.

*How to accomplish it:* Take the facility director to visit the out-patient treatment area, where he/she will see the crowded general waiting area and the small cubicles where doctors and nurses see patients. Explain that mothers are asked to remain at the facility for 4-6 hours to give ORT to their dehydrated children. However, there is nowhere except the crowded waiting area for them to sit. The staff need to be able to find mothers who are treating their children, to check on the progress of the child periodically; the mothers need a comfortable place to sit with access to toilet and washing facilities.

Ask for another room or part of a room which could be set aside for ORT. Provide the manager with a sketch of a floor plan for an ORT area.

3. *Change needed:* Obtain ORS.

*How to accomplish it:* Contact the national CDD programme, which may be able to provide ORS to the facility. Alternatively, ORS packets might be purchased locally, or a nearby pharmacy may be able to mix and package oral rehydration salts for you.

4. *Change needed:* Stop the practice of giving antibiotics to most cases of diarrhoea.

*How to accomplish it:* Conduct a refresher seminar for all staff who can prescribe antibiotics. Discuss the conditions for which the facility generally prescribes antibiotics. List conditions where they do help, such as cholera and dysentery. Discuss the consequences of prescribing antibiotics when they are not appropriate (diminished supply, unnecessary cost to the facility or family, increased antibiotic resistance and side effects).

5. *Change needed:* Change mother's expectations that children need an injection or other medicine for diarrhoea.

*How to accomplish it:* Carefully explain to mothers that the danger from diarrhoea is dehydration and the possibility of a worsening nutritional condition. Use visual materials such as posters and flip charts. Explain dehydration, using terms that the mother will understand; for example, compare a dehydrated child to a wilted flower. Explain that to prevent and to treat dehydration, the child must be given large amounts of the right kind of fluid. Injections and other medicines do not treat dehydration.

## Resources, Equipment and Supplies for Diarrhoea Case Management

### 1. Resource Material

- Supervisory Skills : Management of the Patient with Diarrhoea. (World Health Organization, 1991).
- Participant's Manual for the Integrated Child Survival Training Course for Medical Officers of First Level Care Facilities. (PCSP, BHIS Cell, Government of Pakistan). Draft (1991).
- Trainer's Manual for the Integrated Child Survival Training Course (PCSP, BHIS Cell, Government of Pakistan). Draft 1991.
- Wall chart: Management of the Patient with Diarrhoea (World Health Organization, 1990).
- Videotape: Assessment of Dehydration in a child with Diarrhoea (Produced by the World Health Organization).
- Videotape: Vicious Circle (Produced by I.T.V.).

### 2. Forms

- Diarrhoea Case Record Forms (W.H.O.)

### 3. Equipment

- Jars marked with volume measurement
- Bed or table with arrangement to suspend bottles for I.V. fluid
- Scalp vein butterfly
- Baby scale and adult scale
- Plastic cups and spoons
- Cotton Gauze
- Droppers
- Syringes
- Thermometers

- Soap
- Garbage/trash bin
- Wash basin
- Bench/chairs for mothers
- Clock
- Water cooler
- Nasogastric tube

### 3. Drugs

#### For Rehydration

- O.R.S. packets
- Ringers Lactate with giving set

#### Antibiotics

##### Cholera

- Tetracycline
- Doxycycline
- Furazolidone
- Trimethoprim - Sulphamethoxazole

##### Shigella Dysentery

- Trimethoprim - Sulphamethoxazole
- Nalidixic Acid
- Ampicillin

##### Intestinal Amoebiasis

- Metronidazole

##### Giardiasis

- Metronidazole
- Quinacrine

## **5. ACUTE RESPIRATORY INFECTIONS**

## A. TRAINING OBJECTIVES

### I. Training Objectives for Increased Understanding of the Management of Children under Five Years of Age with Acute Respiratory Infections.

During the training you will receive knowledge on infection in areas of the respiratory tract including nose, ears, throat (pharynx), voice box (larynx), windpipe (trachea), air passages (bronchi or bronchiole) or lungs. You will be trained in the management of these infections. At the end of the training you will be able to:

1. Name and show on a diagram the areas of the respiratory tract where infection may occur.
2. List signs and symptoms of acute respiratory infections.
3. State why most ARI does not require treatment with antibiotics.
4. State why pneumonia is serious in children and requires antibiotics for proper treatment.
5. List the three steps of a proper case management of a child with a respiratory infection.
6. Describe how to collect the required information about signs of respiratory problems.
7. Obtain pertinent information (history) on illness from the mother.
8. Describe how to use the signs to classify the illness and identify appropriate treatment.
9. Describe the two ARI case management charts and how to use each.
10. Describe how to assess a child by asking questions of the mother, looking at the child and listening to the child.
11. Describe how to classify a child, under two months, and two months to five years, having no pneumonia, pneumonia, severe or very severe pneumonia.
12. Describe when to give a child antibiotics and how to give it.
13. List the instructions which must be given to a mother on home care, treatment of fever, wheezing and wick drying a draining ear.

## **II. Training Objectives for the Development of Skills in Case Management of Young Children with Acute Respiratory Infections.**

During the training you will develop ARI case management skills related to the following tasks:

1. Begin assessment of the child by asking the mother for information on age, signs and symptoms of illness and change in child's behaviour.
2. Continue assessment of the child by looking at and listening to the child for activity level, general condition and respiration quality and rate.
3. Assess, by looking, whether or not child has chest indrawing.
4. Assess, by looking and listening, whether or not child has stridor or wheezing.
5. Take the child's temperature.
6. Conclude assessment by classifying the child's illness, using the information obtained from the mother, from looking and listening to the child and by consulting the case management chart.
7. Select appropriate treatment based on the case management guidelines.
8. Start treatment.
9. Counsel mother on the condition of the child and on what she can do to help in the treatment and management of this illness.
10. Tell the mother when to bring the child back to the facility.
11. Instruct the mother on her child's nutritional and immunization needs and on ways to meet these needs.

The tasks and skills outlined above will be learned first by observing your trainer, then by carrying out procedures yourself under supervision, and finally by performing them independently.

### **III. Training Objectives for Improving ARI Services to Children**

After having acquired the knowledge and skills for effective case management of acute respiratory infection, you will make a plan to improve this service at your own facility.

By comparing the management of ARI at the training facility with that at your own facility, you will be able to:

- 1) identify weaknesses in your facility's management of ARI, in terms of attitudes, operating procedures, the skills of your staff and the physical arrangement of the facility itself;
- 2) prepare an action plan for ARI management at your facility by listing the changes required and how you will accomplish them.
- 3) Determine the criteria for an effectively arranged ARI treatment area. Later in the training you will be asked to make a floor plan of your facility, incorporating areas for each of the services offered at your facility.

**B. PRACTICAL WORK**

**Acute Respiratory Infection Case Record Form  
(for completion during practical work)\***

**Assessment**

1. Patient's Name \_\_\_\_\_

Age: \_\_\_\_ Years \_\_\_\_ Months \_\_\_\_ Sex \_\_\_\_

2. Assessment and classification of ARI

	Very severe pneumonia	Pneumonia	No pneumonia, cough or cold
1. Ask mother (6 questions)			
2. Look and listen (for 7 signs)			
3. Decide and classify conditions			
4. Treat			

3. Other problems (fever, diseases other than ARI, etc).

\_\_\_\_\_

\* You will be given forms like the one above to fill out for each patient you see during your practical work.

## **Treatment**

4. Treatment plan selected
5. If severe pneumonia, child referred to hospital
  - Give first dose of antibiotic
  - Treat fever
  - Treat wheezing
6. If pneumonia
  - Give antibiotic
  - Treat fever
  - Treat wheezing
  - Advise mother on home care and on when to return to facility
7. Other treatment prescribed
8. Assessment and management of nutritional needs.
9. Assessment and management of immunization needs.
10. Assessment and management of mother's initial reasons for coming to the facility.
11. Counselling of mother on essential home and follow-up care regarding ARI, immunization, nutrition and/or other identified needs.

Select the appropriate case management chart

Cough or  
Difficult Breathing?

If yes

If no

Use the chart:

MANAGEMENT OF THE CHILD  
WITH COUGH OR DIFFICULT BREATHING

ASSESS	
<p><b>AGE</b></p> <p>1. How old is the child?</p> <p>2. Is the child under 2 years of age?</p> <p>3. How old is the child's mother?</p> <p>4. How old is the child's father?</p>	<p><b>LOOK LISTEN</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>

CLASSIFY THE ILLNESS	
<p><b>THE CHILD AGE 2 MONTHS UP TO 5 YEARS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>THE YOUNG INFANT UNDER 2 MONTHS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>

TREATMENT INSTRUCTIONS	
<p><b>0-24 Months of Age</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>2-5 Years of Age</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>

Ear problem or  
Sore throat?

If yes

If no

Use the chart:

MANAGEMENT OF THE CHILD WITH  
AN EAR PROBLEM OR SORE THROAT

EAR PROBLEM		SORE THROAT	
<p><b>ASSESS</b></p> <p><b>AGE</b></p> <p>1. How old is the child?</p> <p>2. Is the child under 2 years of age?</p> <p>3. How old is the child's mother?</p> <p>4. How old is the child's father?</p>	<p><b>LOOK, FEEL</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>ASSESS</b></p> <p><b>AGE</b></p> <p>1. How old is the child?</p> <p>2. Is the child under 2 years of age?</p> <p>3. How old is the child's mother?</p> <p>4. How old is the child's father?</p>	<p><b>LOOK, FEEL</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>
<p><b>CLASSIFY THE ILLNESS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>CLASSIFY THE ILLNESS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>CLASSIFY THE ILLNESS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>CLASSIFY THE ILLNESS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>
<p><b>TREATMENT INSTRUCTIONS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>TREATMENT INSTRUCTIONS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>TREATMENT INSTRUCTIONS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>	<p><b>TREATMENT INSTRUCTIONS</b></p> <p>1. How does the child look?</p> <p>2. How does the child breathe?</p> <p>3. How does the child cough?</p> <p>4. How does the child's mother look?</p> <p>5. How does the child's father look?</p>

Advise  
mother on  
home care  
and treat  
fever, if  
present

Your instructor will provide you with large-scale copies of these charts.

## Assessment of the Child with a Cough or Difficult Breathing

### ASK:

- How old is the child?
- Is the child coughing? For how long?
- Is the child able to drink?
- Has the young infant (age less than two months) stopped feeding well?
- Has the child had fever? For how long?
- Has the child had convulsions?

### LOOK, LISTEN:

- Count the breaths in one minute.
- Look for chest indrawing (especially subcostal).
- Look and listen for stridor.
- Look and listen for wheeze. Is it recurrent?
- See if the child is abnormally sleepy, or difficult to wake.
- Feel for fever, or measure temperature if child is cold.
- Check for clinically severe undernutrition.

## **Important Points about ARI Case Management**

- ❖ The best way to learn about ARI case management and how children respond to treatment is to follow ARI cases closely. You need to know signs of respiratory infections very well. For this reason see as many ARI cases as possible to learn how the signs appear in different children and at different ages.
- ❖ A child who is classified as having very severe pneumonia is very ill. Treatment should be started immediately and the patient referred directly to the hospital.
- ❖ Mothers should be involved in a child's care. You need to teach them what to do from assessment to leaving the facility, both at the facility and at home.
- ❖ Children who are on antibiotics should be reassessed after 2 days of antibiotics (earlier if the child gets worse).
- ❖ Normal breast-feeding should be continued during illness
- ❖ Children should be immunized ( if needed) when they are at the facility.
- ❖ The mother's other concerns should be discussed. She should be advised that some of these concerns will be addressed in future visits.

## Checklist of Clinical Skills for ARI

Assess a total of 10 suspected cases of ARI and provide information to complete the following table:

ARI CASE	Less than 2 months of age	2 months to 5 years of age	No pneumonia	Pneumonia	Serious pneumonia
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

For these 10 patients, outline responses to the following three questions:

1. What treatment was used? (antibiotics, oxygen, etc)
2. Where was the treatment managed (home or hospital or referred)?
3. What role did the mother or caretaker play (was an obstacle, helped with feeding, medication, treatment, stood by and watched)?

ARI CASE	Treatment Used	Site of Treatment	Mother's Role	Other Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

How many cases of respiratory conditions other than pneumonia did you see? Record these cases below and describe where they were assessed and managed.

## C. IMPROVING ARI CASE MANAGEMENT

### Participant Instructions for Improving ARI Case Management

You have learned to manage ARI cases using the safest and most effective procedures. You now have the responsibility of applying your skills and knowledge to improve ARI case management for children and women at your own facility.

Convincing others at your facility to change their case management procedures on ARI will not be easy. You will need to train and supervise staff and enlist their support. To prepare for this challenging task you will need a well-organized plan.

The following exercise provides steps to guide you in formulating the plan for your facility, in much the same way as you planned improvements for services in the other intervention areas.

#### Step 1

Think about the way ARI cases are handled at the training facility

- What was done for ARI cases, and in what order?
- What were the specific roles and tasks of MOs, nurses, LHVs, vaccinators, mothers in carrying out these procedures?
- What specific skills were required of the various staff members?
- What supplies and equipment did they need to carry out the procedures?

Is ARI case management handled differently at your facility? Can you see areas for improvement? Who needs training at your facility and, specifically, what must they be trained to do? Will some staff need to be reassigned to a different work area? Will schedules have to be changed? What additional supplies or equipment will need to be obtained for your facility?

#### Step 2

Consider the physical arrangement of the training facility's corner for ARI case management. Think about:

- the amount of space allotted
- the type and arrangement of furnishings
- access to toilet and drinking water facilities
- the storage of supplies
- movement of MOs, other staff and patients

With these points in mind, think about your facility. How many ARI patients and family members would you expect to be coming through your clinic each day? Consider location, space, furnishings, patient flow and storage of supplies for ARI services. Are there improvements you could be making?

### **Step 3**

Draw up a list of the changes which should be made in ARI case management at your facility in terms of procedures, reassignment or training of staff, and physical set-up of the ARI area. Determine whose supervisory or administrative support you will need in order to make these changes. Share this information with a trainer or with your colleagues. There will be a class session in the last two days of training devoted to discussion and problem-solving about how to provide more effective service at your facility.

### **Step 4**

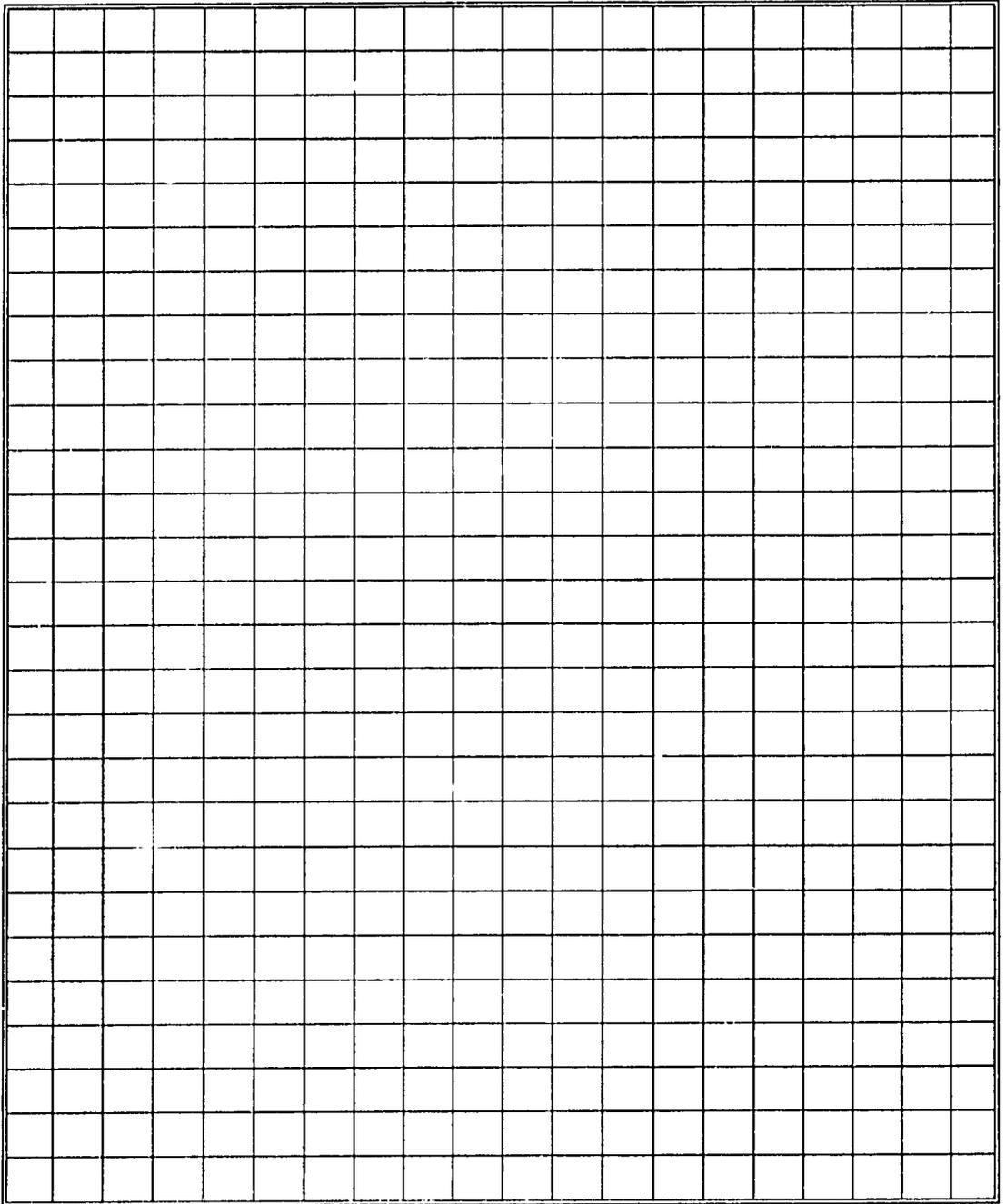
Make an action plan for improving ARI case management at your facility. (Use the form provided on the next page). Your final plan will include the changes you wish to make, and, for each change, the steps you will take, and the people you will involve to make it happen.

At this point you should also make some rough preliminary sketches of how an improved ARI management area might look in your facility, keeping in mind the space required for reception, counselling, immunization, and diarrhoea case management. (Use the floor plan worksheet on page 69). In the next training module, ideas from these sketches will be incorporated into a final floor plan for your health facility.

**ACTION PLAN FORM**  
for Improving ARI Case Management

	Change Needed	Action	Individual responsible	Other staff or officials involved	Resources supplies	Starting & completion dates
Physical set-up						
Procedures						
Staffing/Training						

# FLOOR PLAN WORKSHEET



## Resources, Equipment and Supplies for ARI

### 1. Resource Material

- Participant's Manual for the Integrated Child Survival Training Course for Medical Officers of First Level Care Facilities. (PCSP, BHS Cell, Government of Pakistan). Draft 1991.
- Trainer's Manual for the Integrated Child Survival Training Course for Medical Officers of First Level Care Facilities. (PCSP, BHS Cell, Government of Pakistan). Draft 1991.
- Management of Young Child with an Acute Respiratory Infection. WHO (Ministry of Health, Government of Pakistan, 1991).
- Wall chart: Management of a Child with Cough or Difficult Breathing (World Health Organization).
- Videotape: Assessment of the Child with Cough or Difficult Breathing (Produced by the World Health Organization).

### 2 Forms/Register

- Acute Respiratory Infection Case Record forms
- ARI prescribed register for O.P.D.

### 3. Equipment

- Otoscope
- Torch
- Tongue depressor
- Suction machine
- Nasogastric tube
- Weighing scale
- Nebulizer
- Watch (each trainee should have one for counting respiration)
- Thermometer

#### 4. Drugs

##### *Antibiotics*

- Cotrimoxazole Tab. (Trimethoprim + sulphamethoxazole)
- Amoxicillin
- Ampicillin
- Procaine penicillin
- Benzyl penicillin
- Kanamycin, gentamicin (amino-glycoside)
- Chloramphenicol
- Cloxacillin, flucloxacillin, oxacillin

##### *Other drugs*

- Amino phylene
- Epinephrine and adriniline 1/1000
- Sal-butomal table
- Paracetamol

#### 5. Other supplies

Cotton

**6. GENERIC CASE MANAGEMENT FOR CHILDREN  
COMING TO A HEALTH FACILITY**

## A. TRAINING OBJECTIVES

### **I. Training Objectives for Increased Understanding of Health and Medical Factors Contributing to the Full Well-being of the Developing Child.**

During the past ten days' training, you have learned to assess and manage the nutritional and immunization needs of children and to manage children with diarrhoea and acute respiratory infections. In this section you will learn to use this newly-acquired expertise in carrying out your responsibilities as a MO in the:

- assessment of a child's nutritional and immunization needs
- management of a child with diarrhoea
- management of a child with ARI, and
- management of a child with other health problems

In so doing, you will focus on the child as a whole, identifying the child's needs, classifying his/her condition according to assessment charts and providing appropriate treatment or referral. Throughout this process you will be involving the mother, first as an information provider and then as a responsible partner in illness prevention (immunization), health promotion (nutrition counselling) and in the management of her child's illness at the facility and at home.

On completion of training you will be able to answer questions on the following topics.

#### **1. Rationale of Integrated Child Survival Training**

- The child mortality rate can be reduced significantly only by considering the total well being of the developing child.
  - Health professionals must work together in meeting the child's health needs. One single health professional is not capable of meeting all of a child's health needs.
  - The involvement of the mother or caretaker is vital to improving a child's health status.
  - Since new information in paediatrics doubles every ten years, the continuing education of health professionals is essential.
  - In order to improve skills, hands-on training is a must.
  - In-service training needs to be job-specific and provided to personnel at each level of the health care system.
- 2. The importance of communication among health team members within a facility and between facilities.**
  - 3. The importance of teaching and counselling mothers on appropriate measures to enhance a child's well-being.**
  - 4. The need for referral to a District Headquarters Hospital or Teaching Hospital.**

## **II. Training Objectives for the Development of Skills in Meeting a Wide Range of Health and Medical Needs of Children Attending a Facility.**

During the training, you will develop or sharpen the following skills under the guidance of a trainer:

1. Including the mother in child care from assessment to discharge, counselling her in such a way as to gain her trust and cooperation and give her the knowledge she needs to care for her child.
  
2. Assessing and classifying a child's health and medical status for
  - Nutrition
  - Immunization
  - Diarrhoea
  - Acute Respiratory Infections
  - Other problems
  
3. In treatment and management:
  - a. providing necessary immunization and/or nutritional advice;
  - b. treating according to treatment plan selected for diarrhoea and acute respiratory infections; or
  - c. for other problems, treating according to programme policy or government regulations.
  
4. Making referrals.
  
5. Follow-up on patients to be sure that children are continuing to get the care they require.

### **III. Training Objectives for Providing Integrated Health Services and Case Management for All Children Coming to a Facility.**

By comparing how the training facility is set up to meet children's and mothers' or parents' needs, and by consulting the action plans and floor plans which you have made during this course for each intervention area, you will now be able to:

- Prepare an action plan and floor plan for your facility as a whole so as to improve its overall effectiveness in terms of providing integrated health care for children and women.

## **B. PRACTICAL WORK**

### **Guidelines on the Management of a Child Coming to a Health Facility**

The main training objective of this chapter is to prepare you as a medical officer to provide adequate and appropriate health care to children coming to your facility. Adequate and appropriate care includes proper diagnosis, treatment, referral and follow up services — based on the age and condition of the child. It also means involving the mother or caretaker at each step of the intervention.

You will be instructed to use all your newly-acquired expertise in counselling, immunization, nutrition and treatment of diarrhoea, ARI and other conditions in improving health services for all children coming to the facility.

During the training so far, you have received information and practical learning in assessment, treatment and follow-up care required to meet a child's immunization and nutrition needs. You also learned about the management of a child with diarrhoea and acute respiratory infections. In this section of training you will utilize all of your learning so far in assessing a number of children's needs as well as illnesses and provide appropriate interventions and counselling to mothers based on the Guidelines below.

### **Guidelines on the Management of a Child Coming to a Health Facility**

1. Inquire of the mother her reasons for coming to the facility. List the reasons.
2. History: Ask mother
  - age of the child
  - any change in food or fluid intake
  - any change in activity
  - his/her immunization status
3. Assessment: Look, listen and carry out procedure:
  - look at general condition - colour, alertness and activity
  - cough
  - breathing - rapid, wheezing, stridor
  - runny nose
  - runny ears
  - carry out procedure
  - count respiration and note quality
  - take weight and record weight on growth chart
  - take temperature if indicated

#### 4. Classify child as:

- having no symptoms
  - having symptoms of ARI
  - having symptoms of diarrhoea
  - having a need for immunization
  - weighing less than expected
  - weight for age
  - having other symptoms
- Refer to ARI Case Management  
Refer to Diarrhoea Case Management  
Refer to Immunization Schedule  
Refer to Growth Management Chart  
Manage as per symptoms

#### 5. Treatment

Treat according to classification and recommendation on treatment chart.

#### 6. Inform and instruct mother on

- diagnosis
- treatment at facility and at home

Instruct on:

- treatment as indicated
- nutrition by state of illness/health and age
- fluid intake by state of illness/health and age
- symptomatic relief for pain, fever, and difficulty in breathing or eating.
- when to bring child back to facility:
  - for reassessment of present illness
  - for next immunization
  - for growth monitoring
  - when mother feels child is not well.

#### 7. For those cases which cannot be managed properly at your facility, you will make referrals. For the following two situations referral is a must:

1. Children requiring investigations not available at the facility
2. Severely ill children requiring specialised/intensive care.

## Procedure for Making a Referral

As already discussed, "refer" means to direct someone to a person or place. When a person is referred some place, he/she must interact with another person and must provide essential information. Most people are not able to transmit information properly. Therefore, it is important that the person initiating the referral as well as the person acting on the referral communicate effectively. In some cases it is possible to communicate information by telephone, but this is not always the case. So a written note consisting of essential information will make the referral appropriate as well as satisfying.

Four kinds of information are required on all referrals. These are:

- Who started or initiated the referral.
- Who is to receive the referral.
- Who is the person being referred.
- The reason for the referral.

## A Follow-up Care Plan for Referrals\*

When members of a health team refer an individual or family to a health professional or an agency they must make sure that the referral is appropriate. This means that the resource will meet some or all of the identified needs of the child so that maximum benefit is gained from the referral. The individual or parent should be well informed. The responsibilities of the centre staff, individual or family and the joint responsibilities of both parties are outlined below.

1. A centre staff member should go over the following points with the parent of the child being referred:

- Explain to the mother that this facility cannot handle the child's medical needs because it does not have the required resources.
- Identify the required resources.
- Give initial treatment
- Provide directions on how to get to the referral centre.
- Provide information on who to see. Give the name and title of the person.
- Explain what to say and how to say it. "I have been sent here by \_\_\_\_\_ for the purpose of \_\_\_\_\_ and I have a letter with me."
- Provide a referral note.
- Explain what to take, such as money for transport, lodging and food and registration forms, medicines, etc. Regarding transport, the BHU or RHC should have the schedule of buses and trains to major hospitals or centres which are frequently used for referrals.
- Ask the parent to repeat and explain the above points to make sure he/she has understood everything.

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\* A referral should be made only if you expect the child to receive better care from the referred facility.

2. The parent must be able to:

- Take and understand directions from the centre staff.
- Take the required money, reports, specimens and referral slip.
- Get to the centre and seek out the appropriate person.
- Communicate relevant information to this person and hand over the report, referral slip, specimen, etc.
- Cooperate with the person(s) helping him/her interact by answering all questions to the best of his/her ability; consent to his/her child being examined and participate in the testing procedures.
- Ask any questions or express concerns.
- Understand the explanation as to what the problem or situation is, what needs to be done and how and when to do it.
- Thank the person, leave the centre and return to the community.

3. The parent or family and a centre staff member need to meet together and:

- evaluate the parent's (individual/family's) experience with the referral;
- evaluate the parent's understanding of the directions given;
- evaluate the parents plans based on the directions and the assistance provided;
- determine if the centre staff's help is required in implementing the plan. If so, provide it;
- agree upon a schedule and a plan leading to a solution of the identified need/problem;
- check and evaluate the progress of the agreed plan.

When existing needs or problems are met or solved satisfactorily and there are no new ones, conclude your services by summarizing your activities and tell the parent to contact you if your services are required further.

Findings from this referral experience should be applied to the handling of future referrals.

## A Checklist of Clinical Skills

In preparation for the balance of the training, review your checklists for clinical skills and make a list of infants and children seen for each of the four intervention areas. Identify areas where you:

- (a) have seen less than 3 children for that particular condition; or
- (b) have not carried out the essential procedures.

Make a list of learning activities you still have to complete. Present this to your trainer/supervisor and request cases to fulfil your training requirements.

See 10-12 children coming to the facility and assess, classify and manage their health and medical needs. Complete the following two checklists. For each child seen, put a check mark under the appropriate column, indicating focus in case management.

Child's Name	Immunization	Nutrition	Diarrhoea	ARI	Other
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

## A Checklist for Essential Procedures

Each time you complete one of the following procedures, check it off on the chart.

Procedure	No. of times procedure carried out
1. Weighing an infant or child	
2. Completing a growth chart	
3. Giving immunization	
4. Filling out immunization card	
5. Counting respiratory rate	
6. Looking for chest in drawing	
7. Listening for wheezing or stridor	
8. Wick drying a draining ear	
9. ORS preparation	
10. ORS demonstration	
11. Counselling mother or parent	

## C. IMPROVING CASE MANAGEMENT

### Participant Instructions for Improving Management of Children Coming to the Facility

When you return to your facility, it will not be possible for you see all the children and answer their identified health and medical needs yourself. However, it is you who will plan and oversee the improvements in the practices of your staff and the services offered at your facility. The steps of this exercise will help to guide you in organizing a final plan.

#### Step 1

Review the action plans which you prepared in the other training modules for improving services in immunization, nutrition, diarrhoea and ARI.

#### Step 2

Combine these into one overall plan, (using the action plan form on page 84) and keeping in mind some of the questions you have been asking throughout the course.

- Think about what you have seen at the training facility. What did doctors, nurses, LHVs, vaccinators, other staff and mothers do to meet a child's health and medical needs?
- Who must be trained and specifically what must they be trained to do?
- Will staff at your facility be adequate to meet the medical and health needs of children attending the facility? Will some staff need to be assigned to different schedules or work areas?
- What supplies, equipment and staff were used at this facility? What additional supplies and equipment need to be obtained for your facility?
- Do the policies regarding working hours or schedules interfere with the effective delivery of services at your facility?

#### Step 3

Get together with participants from facilities similar to yours, and review each others' lists of changes.

- Determine if you need to add to your list additional changes, based on what you have learned from the other participants.
- Make final changes to your action plan.

Be prepared to discuss and give reasons for your changes.

#### **Step 4**

Review the floor plans which you prepared during the other training modules. Combine these into one workable plan for the space available at your facility, (see worksheet, page 85) keeping in mind the following:

- the circulation of staff;
- the patient flow;
- the particular criteria for each area (e.g. near water or toilet facilities, quietness, number of patients expected).

#### **Step 5**

Review your floor plan with other participants from similar facilities and prepare a final floor plan.

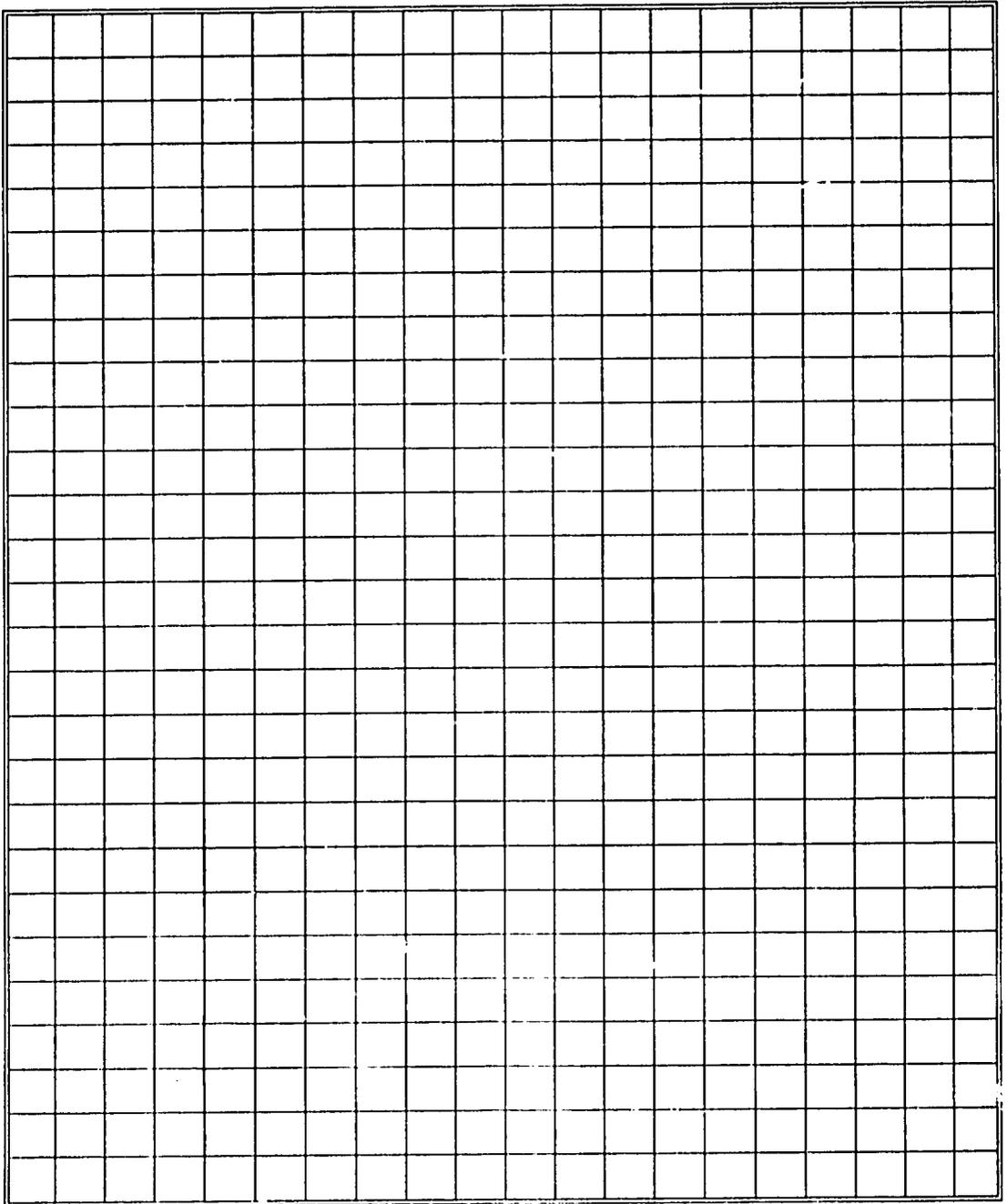
You should be prepared to present your action plan and floor plan to the rest of the class, and to explain what the changes will accomplish, how you will make the changes, and how you plan to get the necessary support from supervisors and administrations.

When you return to your facility, your plans will be valuable guides in carrying out the improvements. The floor plan will be helpful in explaining the changes to staff. The action plan should be given to your supervisor in order to get the support you will need to make the improvements.

**Action Plan Form  
for Improving Case Management**

	Change Needed	Action	Individual responsible	Other staff or officials involved	Resources supplies	Starting & completion dates
Physical set-up						
Procedures						
Staffing/Training						

# Floor Plan Worksheet



## APPENDIX

# Agenda for Training

## Day One

### Introduction

- 8:00 - 8:15 Registration
- 8:15 - 9:00 Welcome  
Introduction to the Course
- 9:00 - 9:30 Introduction to Integrated Child Survival Training
- 9:30 - 10:00 Tea break

### Interpersonal Communication

- 10:00 - 11:30 Interpersonal Communication
- 11:30 - 12:30 *Practical Work*  
Communication Techniques in Counselling

### Immunization

- 12:30 - 2:00 *Lecture, and discussion*  
Introduction to Immunization  
Immunization Module Training Objectives  
Vaccines and How to Look After Them  
Immunization Schedules; When and How to Give Vaccines
- 2:00 - 5:00 Lunch and rest
- 5:00 - 8:00 *Assignments*
- Prepare case presentation on involving mother in child care, from history taking to counselling prior to leaving the facility
  - Readings on Immunization - Immunization in Practice, pages 21 to 166

## Day Two

- 8:00 - 9:00 Case Presentations (2) on Involving Mother in Child Care. *Discussion*
- 9:00 - 10:00 *Lecture and demonstration*  
Assessment of Immunization Status of Women and Children; Side Effects of Vaccines
- 10:00 - 10:30 Tea break
- 10:30 - 12:00 *Practical Work*  
Assessing Immunization Status; Giving Vaccinations and Counselling Mothers
- 12:00 - 12:30 *Demonstration and practical work*  
Recording and Reporting
- 12:30 - 1:45 *Lecture and demonstration*  
Ensuring Safe and Adequate Immunization Services
- 1:45 - 2:00 Participant's Evaluation of Immunization Module
- 2:00 - 5:00 Lunch and rest
- 5:00 - 8:00 *Assignments*
- Prepare case study on meeting the immunization needs of a child or woman of child-bearing age
  - Readings from Participant's Nutrition Manual
  - Exercise: Improving Immunization Services for Children and Women. Participant's Manual, page 24.
  - Home test on immunization

## Day Three

8:00 - 9:00 Case Presentation on Meeting the Immunization Needs of a Child or Women of Child-bearing age

<b>Nutrition</b>
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9:00 - 9:30 *Lecture and discussion* (Unit 1)  
Introduction to Nutrition Training (Unit 15)  
Nutrition Learning Objectives

9:30 - 10:20 Assessment of Growth in Infants and Young Children (Unit 2)

10:20 - 10:50 Tea break

10:50 - 12:20 *Practical work*  
Demonstration of Assessment of Growth in an Infant or Young Child

12:20 - 2:00 *Lecture and discussion*  
Risk Factor Assessment (Unit 4)  
Dietary Assessment/Counselling (Unit 5)  
Nutritional Needs of an Infant, Birth - 4 months (Unit 6)

2:00 - 5:00 Lunch and rest

5:00 - 5:30 Breast-feeding

5:30 - 6:15 Nutritional Needs of Infants 4 - 12 months (Unit 7)

6:15 - 8:00 *Practical work (for females) in ob/gyn ward*  
Working with mothers and new-borns

## Day Four

- 8:00 - 9:00 *Presentation and Discussion of Case Studies*  
Dietary assessment and counselling of a lactating mother; two to three-day-old infant being breast fed
- 9:00 - 9:30 *Lecture and discussion*  
Nutrition Needs of Children 13 - 60 Months (Unit 8)
- 9:30 - 10:15 Nutrition During Adolescence, Pregnancy and Lactation (Unit 9)
- 10:15 - 10:45 Tea break
- 10:45 - 12:00 *Practical work*  
Dietary assessment of an infant (under 1 year); and between one and five years of age
- 12:00 - 12:30 *Lecture and discussion*  
Identification and Nutritional Management of Low Birth Weight Babies (Unit 10)
- 12:30 - 1:30 *Lecture and discussion*  
Clinical Assessment and Management of Malnutrition (Unit 11)
- 1:30 - 2:00 *Practical demonstration and discussion*  
Demonstration with a child from hospital suffering from malnutrition
- 2:00 - 5:00 Lunch and rest
- 5:00 - 5:45 *Lecture and discussion*  
Nutrition Needs During Illness and Convalescence (Unit 12)
- 5:45 - 7:00 Micronutrient Deficiencies (Unit 13)
- 7:00 - 7:30 Nutrition Services in Health Centers (Unit 14)  
Government Nutrition Programme and Policies
- 7:30 - 7:40 Participant's Evaluation of Nutrition Training Module
- 7:40 - 8:00 Preparation for case study presentation on a malnourished child

## Day Five

### Diarrhoea

- 8:00 - 9:00 *Case presentations (2)*  
Meeting immunization and nutritional needs of pregnant and lactating women
- 9:00 - 10:00 *Lecture and discussion*  
Introduction to Diarrhoea Management  
Diarrhoea Module Training Objectives  
Diarrhoea and Dehydration; Prevention of Diarrhoea; Home Treatment of Diarrhoea
- 10:00 - 10:30 Tea break
- 10:30 - 11:00 Diarrhoea management video: Assessment of Dehydration In a Child With Diarrhea
- 11:00 - 11:30 *Practical work*  
Assessment of Dehydration in a Child with Diarrhoea
- 12:00 - 12:30 Use of Drugs for Diarrhoea  
Video: Vicious Circle
- 12:30 - 2:00 *Practical work*  
Management of the child with diarrhoea and dehydration; preparation of ORS
- 2:00 - 5:00 Lunch and rest
- 5:00 - 8:00 *Assignments*

- Complete two case studies from the days's practical work on : 1) a child with diarrhoea and its management; and 2) meeting a child's immunization and nutritional needs.
- Readings on diarrhoea case management — Management of the Patient with Diarrhoea, pages 66-70 and 80-82.
- Take-home test on diarrhoea management.

## Day Six

- 8:00 - 9:00 *Case presentations (2)*  
Management of a child with diarrhoea, including meeting identified immunization and nutritional needs
- 9:00 - 10:00 Assessment of Diarrhoea , Dysentery and Complication of Diarrhoea
- 10:00 - 10:30 Tea break
- 10:30 - 11:30 *Practical Work*  
Managing a Child with Diarrhoea
- 11:30 - 12:30 *Discussion*  
Drugs: When Should They be Used for Diarrhoea?
- 12:30 - 1:45 *Practical work*  
Diarrhoea - Assessment and Treatment
- 1:45 - 2:00 Participants' Evaluation of the Diarrhoea Module
- 2:00 - 5:00 Lunch and rest
- 5:00 - 8:00 *Assignments*
- Prepare a case study on dysentery or persistent diarrhoea or complications of diarrhoea
  - Readings on ARI - Management of the Young Child with an Acute Respiratory Infection, pages 1-35, 41-73.

## Day Seven

- 8:00 - 9:00 *Case presentations (2)*  
Choice from the following:  
dysentery • persistent diarrhea • complications of diarrhoea, including meeting immunization and nutritional needs

### Acute Respiratory Infection

- 9:00 - 10:00 *Lecture*  
Introduction to ARI Management  
ARI Module Training Objectives
- Lecture and discussion*  
Assessment and Classification of a Child with a Cough or Difficult Breathing
- 10:00 - 10:30 Tea break
- 10:30 - 11:30 *Video*  
Case Management of a Child with Cough or Difficult Breathing
- 11:30 - 12:30 *Practical work*  
Assessment, classifying and treating ARI cases
- 12:30 - 2:00 *Lecture and discussion*  
Treatment of cough or difficult breathing
- 2:00 - 5:00 Lunch and rest
- 5:00 - 8:00 *Assignments*
- Prepare two case studies on pneumonia, including meeting immunization and nutrition and nutrition needs
  - Readings on acute respiratory infections - Management of Child with an Acute Respiratory Infection pages 83-88 and 91-96
  - Take-home test on ARI Management

## Day Eight

- 8:00 - 9:00 *Case presentation (2)*  
ARI Case Management (on pneumonia, if a case is available), Including Meeting Immunization Needs
- 9:00 - 10:00 *Lecture and discussion*  
Management of a Child with Ear Problem or Sore Throat
- 10:00 - 10:30 Tea break
- 10:30 - 12:00 *Practical work*  
Assessing and Treating a Child with a Cough, Difficult Breathing, Ear Problem or Sore Throat
- 12:30 - 1:00 *Lecture and discussion*  
Referring a child to hospital
- 1:00 - 1:45 *Lecture and discussion*  
Role of mother and facility staff in meeting a child's needs  
  
Management of ARI in a child under two months of age
- 1:45 - 2:00 Participants' Evaluation of ARI Module
- 2:00 - 5:00 Lunch and rest
- 5:00 - 8:00 *Assignments*  
Prepare a case study on the management of a child with an acute respiratory infection

## Day Nine

8:00 - 9:00 *Case Presentation*  
Management of a Child with ARI. Discussion

### **Generic Case Management**

9:00 - 10:00 Introduction to Module: Management of a Child Coming to the Facility.

- Introduction
- Training objectives
- Generic case management guidelines

10:00 - 11:00 Tea break

11:00 - 1:00 *Practical work*  
Management of a Child Coming to a Facility

1:00 - 2:00 Role of MO in Providing Improved Child Health Services

2:00 - 5:00 Lunch and rest

5:00 - 8:00 *Assignment*

- Reading and reviewing appropriate material for cases seen during practical hours
- Preparation of presentation

## Day Ten

- 8:00 - 9:00    *Case Presentations (2)*  
Management of a Child Coming to a Facility. Discussion
- 9:00 - 10:00    Role and Responsibilities of Facility Staff and Parents in Bringing About Improved Child Health Status
- 10:00 - 10:30    Tea break
- 10:30 - 12:00    *Practical work*  
Case Management
- 12:00 - 12:30    Making a Referral and a Follow-up Care Plan
- 12:30 - 2:00    Improving Child Health Services at the Facility and at Home
- 2:00 - 5:00    Lunch and rest
- 5:00 - 8:00    *Assignment*
- Reading and reviewing appropriate material for cases seen during practical session
  - Preparation of presentations on "Improving Case Management"

# Day Eleven

- 8:00 - 9:30     *Presentations (3)*  
Improving Case Management
- 9:30 - 10:30    Changing Attitudes and Practices of Health Service Providers and Parents in your Facility
- 10:30 - 11:00    Tea break
- 11:00 - 1:00     *Practical work*  
Case Management
- 1:00 - 2:00     *Discussion*  
The Individual Health Professional and Continuing Education
- 2:00 - 5:00     Lunch and rest
- 5:00 - 8:00     *Assignment*
- Reading and reviewing training material relating to the day's practical cases
  - Preparation for presentation --- Action Plan for improving case management upon return to facility
  - Preparation of an individual plan for obtaining essential continuing education
  - Completing evaluation form on the Integrated Child Survival Training Course

## Day Twelve

- 8:00 - 9:30     *Presentations (3)*  
Plans to improve case management at:
- A DHQ Hospital/Teaching Hospital
  - A Rural Health Centre
  - A Basic Health Unit
- 9:30 - 10:00   *Prese ntation and Discussion*  
Plans to Obtain Continuing Education
- 9:50 - 10:00   Participants' Evaluation of the Module
- 10:00 - 10:30   Tea break
- 10:30 - 1:00    Closing session
- 1:00 - 2:00     Lunch
- 2:00             Departure