

WHO/EMC/ DIS/97.4 Rev. 1

Epidemic Diarrhoeal Disease Preparedness and Response. Training and Practice. Facilitator's Guide

World Health Organization Emerging and other Communicable Diseases,

Surveillance and Control

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ACKNOWLEDGEMENTS

The development of this training material is the result of a joint effort by the WHO Regional Office for Africa and WHO Headquarters, as part of the activities of the WHO Global Task Force on Cholera Control. In particular, the staff of the Project for Improving Preparedness and Response to Cholera and other Epidemic Diarrhoeal Diseases in Southern Africa have greatly contributed to this development.

The work was carried out by Dr Anne Rodman on contract for WHO, and by a technical WHO coordination group composed of Dr Antoine Kaboré (WHO/AFRO), Dr Elizabeth Mason and Dr Allen Ries (both of WHO/Southern Africa Initiative), Dr Tony Musinde (WHO/Côte d'Ivoire) and Dr Maria Neira (WHO/EMC/HQ). Dr James Tulloch, Director, Division of Child Health and Development (CHD), provided valuable suggestions. Special thanks go to Dr Michel Thuriaux for revision and improvements in overall text coherence, and to Mrs Marilyn Di Lauro for her painstaking assembling and proof-reading.

The World Health Organization would like to extend its appreciation to the national participants in field testing of the material in Malawi and Zambia and to the members of the Swiss Disaster Relief – they provided invaluable insights and comments for practical use.

INTRODUCTION

How does this course differ from other training courses?

- # The material in the course will not be presented through lectures. Instead, each participant will be given a set of instructional booklets, called modules, that include the basic information to be acquired.
- # The modules are designed to help each participant develop the specific skills needed to prepare for and respond to epidemics of diarrhoeal disease. These skills are developed by asking each participant to apply new knowledge to exercises (provided) in the modules and to situations presented in group discussions.
- # Each participant is encouraged to work at his or her own speed.
- # Each participant is encouraged to discuss any problems or questions with a facilitator, and to receive prompt feedback from the facilitator on completed exercises (that is, to be told how well he or she has done the exercise and what improvements could be made).

What is a FACILITATOR?

A facilitator is a person who helps the participants learn the skills presented in the course materials, usually through individual discussions. For facilitators to give enough attention to each participant, a ratio of one facilitator to 3 to 6 participants is desirable. In your assignment to teach this course, YOU are a facilitator.

As a facilitator, you will need to be very familiar with the material presented. It will be your job to answer questions, talk with participants about the exercises, lead group discussions, and generally give participants any help they need to successfully complete the course. You will *not* be expected to teach the content of the course through formal lectures.

What will you DO as a facilitator?

As a facilitator, you will do 3 basic things:

1. You will INSTRUCT

- by making sure that each participant understands how he or she is to work through the materials and what he or she is expected to do in each module and each exercise
- by answering the participant's questions as they occur
- by making clear any information that the participant finds confusing as he or she works through the materials, and by helping the participant to understand the main purpose of each exercise
- by guiding group activities, such as group discussions and role plays, to ensure that the learning objectives are accomplished
- by promptly evaluating each participant's work and providing correct answers
- by identifying weaknesses in the participant's skills or understanding and providing explanation or practice to correct them
- by helping the participant to understand how concepts taught in the course apply to practical problems, for example to actual situations in his or her country.

2. You will MOTIVATE

- by complimenting the participant on correct answers, improvements, or progress
- by making sure that there are no major obstacles to learning (such as too much noise or not enough light).

3. You will MANAGE

- by making sure that each participant has access to the right supplies and materials when needed
- by monitoring the progress of each participant.

How will you do these things?

- by demonstrating enthusiasm for the topics covered in the course and for the work that the participants are doing
- by being receptive to the questions and needs of each participant.

As a facilitator, you should encourage the participants to come to you at any time with questions or comments. You should always be available during scheduled times, and avoid working on other projects or carrying on discussions not related to the course during those times.

You should promote a friendly, cooperative relationship. You should respond positively to questions (by saying, for example, "Yes, I see what you mean", or "That is a good question"). You should also keep from using facial expressions or making comments that could cause participants to feel ridiculed.

Always take enough time with each participant to answer his or her questions completely (that is, so that both you and the participant are satisfied). Finally, you should not always wait for a participant to ask you for help. Instead, watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space, not writing answers, or not turning pages.

How can this FACILITATOR GUIDE help you?

In addition to providing information on the role of a facilitator, this *Facilitator Guide* provides guidelines for each module, including:

- # a list of the basic steps to be done by you and by participants to complete the module, with references to other helpful pages in the guide
- # "Detailed Guidelines" which describe specific actions you should take, points you should cover in discussion, etc.
- # a place for you to write down points to make in addition to those listed in the "Detailed Guidelines"
- *#* answer sheets (or possible answers) for each exercise.

The section titled "Guidelines for Facilitator" describes training techniques for working with participants at any time during the course. It also includes important techniques for you to use in particular situations:

- when participants are working
- when providing individual feedback
- when leading a group discussion
- when coordinating a role play.

To prepare to help participants in their work on a module, you should:

- # read the *Participant's Manual* and *work the exercises through*
- # read in the *Facilitator's Guide* all the information provided about the module
- # plan how work on the module will be done and what major points you should make
- # think about sections that participants may find difficult and questions they may ask
- *#* plan ways to help with difficult sections and to answer possible questions
- # think about the skills taught in the module and how they can be applied in participants' areas of work
- # plan questions to ask participants so that they will also think about how their skills can be applied when they have returned to their places of work.

CHECKLIST OF INSTRUCTIONAL MATERIALS **NEEDED AT THE COURSE**

Facilitator's Guide

Participant's Manual

Set of answer sheets

1 for each facilitator

NUMBER NEEDED

1 for each facilitator 1 for each participant

1 for each participant

ITEM

CHECKLIST OF SUPPLIES NEEDED AT THE COURSE

Supplies needed for each person include:

- # name tag and holder
 # eraser
 # paper
 # highlighter
 # ball point pen
 # folder/file for carrying materials.
- # pencil

Supplies needed for each small group include:

# paper clips	# 1 roll transparent tape
# 1 pencil sharpener	# 2 rulers
# 1 roll of masking tape	# 1 flipchart pad & 4 markers or blackboard & chalk.

In addition, for the plenary:

- # 1 flipchart pad and markers *or* blackboard and chalk
- # 1 stapler/staples
- # 1 staple remover
- # 1 pair of scissors
- # 1 roll of masking tape.

MATERIALS AND INFORMATION TO BE OBTAINED **BEFORE THE COURSE BEGINS**

What to get	What to do	
<i>For exercise A (Forms)</i> : Obtain copies of the forms that are used at local health facilities to record information about patients with diarrhoea. These might be:	Participants will review and discuss each of the forms.	
 (a) a tally form, (b) a monthly summary form, (c) an immediate notification form (d) a patient register (if you cannot get a page from a patient register, write down the information that is asked for in the column headings). These forms should be requested in the invitation letter (Annex A) For each of the forms, find out: what information relevant to diarrhoea is recorded on the form who should use the form how often the information should be sent (if it is sent) how often the information should be sent (if sent). 	Participants will review the proper use of the forms.	
<i>For exercise C (Graphs)</i> : Graph paper (or see end of <i>Participants' Manual</i>).	Graphs.	
<i>For exercise E (Notification)</i> : Obtain the form(s) used to report suspected outbreaks, and make a copy for each participant.	Participants will review proper use of notification form(s).	
Find out the name, title and address of the person(s) whom participants should notify of suspected epidemics.Find out the means by which that person can be contacted (i.e., list the physical address, telephone, fax, telex numbers, etc.).	Participants will receive up-to-date and accurate information on whom to notify, and how to notify them.	

<i>For exercises F and G (Handling specimens):</i> Find out the name, address and telephone and fax numbers of the laboratory to which participants should send specimens.	Participants will receive up-to-date and accurate information on which laboratory should be used.
Obtain the items needed to perform demonstrations of the collection, packing and labeling stool specimens.	Participants will watch a demonstration of the correct way to collect, pack and label specimens, using materials available locally.
 Obtain the following items (read the instructions on pages 27 through 30 of the <i>Participant's Manual</i> to review how each would be used). Try to obtain the same type of material that will be used by health workers in the area. cotton tipped swabs* (6) screw-cap bottles* (3-4) Cary-Blair transport medium (made up into bottles, 3) Alkaline peptone water* (3-4 bottles) blotting paper* plastic bags and methods for sealing them* pens / indelible marking pens (1-2) Stool Specimen Data Sheets* (6+) first-aid tape or masking tape (1 roll) boxes, insulated boxes and materials that will keep specimens cold (1 at least) something that can be used as "stool", such as mud, or earth mixed with water - it may be useful to use a brightly coloured material so that any spilling shows. * Enough for at least 3 demonstrations (one for the facilitator to use for the demonstration in exercise G and one for the facilitator to a return 	One participant to demonstrate the collection of the specimen; another to show how to pack specimens for transport.

<i>For exercise H (Supplies)</i> : Obtain the catchment population of each participant's district. If possible, make sure that the information for exercise H does not contradict national policy. If it does, the issue should be settled before starting the workshop.	Participants usually know their catchment population. Tell them on the first day that they should obtain this information, even as an approximation.
<i>For exercise T (Health education):</i> Obtain the materials needed to make health education posters. These include large format paper, heavy stock paper, pencils, pens, markers, paints and rulers. Try and get some of the posters which are used for health education in local hospitals/health centres.	Participants will have materials they need to make posters.
<i>For exercise U (Water storage):</i> Obtain samples of bottles, cups, storage jars (earthen or plastic) commonly used in the area. Obtain droppers and/or small syringes (up to 5 cc). Obtain samples of commonly-used chlorine-based disinfectants.	
<i>For exercise V (Hand washing):</i> Obtain a bar of soap, a basin, a towel.	
For exercise W (Health education drills): For the question in the health education drills, in which participants must explain how families can treat water with chlorine solution. Find out what materials are available locally for families to use to measure "3 drops of chlorine solution" and "1 litre". For example: to measure drops: - simple dropper tube/teaspoon - syringe to measure 1 litre - bottle of "Brand X" cooking oil - kitchen measures	Participants will know what means are available locally.
Where appropriate, write local answers in the space left blank in the answer column for that question in the drills (page 55 of this <i>Guide</i>)	

<i>For exercise W</i> : Obtain a variety of locally used containers that are used for home water storage. Get some that would be suitable (narrow mouth, cover) and some that would not.	Participants will inspect water containers and decide whether they are suitable.
Obtain locally available chlorine product(s) and droppers and/ or syringes to measure amount of chlorine solution.	Facilitator will demonstrate treating water with chlorine solution. Participants will practise using chlorine solution to treat water.
Obtain several litre measures (used 1 litre IV bottles, graduated cylinders). These need not be measures that are available to the community, since it is health workers who use them to establish the volume of water contained in common containers. Once this has been established, the health workers can tell the public how much chlorine solution is required for each standard type of container.	Participants will measure the volume of water that is held in local containers.
<i>For exercise X</i> : Obtain materials needed. Get soap (and/or ash) and towels. Arrange for water for hand washing (basin, tap or sink).	Participants will do a role play of teaching someone to wash and dry their hands properly.

SPACE REQUIREMENTS

There should be *one* small room for each group of 1 facilitator + 3-6 participants. For example, if there will be 6 participants at the course, there should be 1 small room. If 30 participants are expected, there should be 5 or 6 small rooms. Each small room should have:

- # enough table or desk area for participants and facilitator to sit comfortably and have enough room to write
- # a blackboard or flipchart stand with paper
- # adequate light and air
- *#* places to put supplies and reference materials.

In addition to each small room, you will want one larger room sufficient to seat all participants and any visitors.

GUIDELINES ON TECHNIQUES

A. General Techniques for Motivating and Managing Participants

Encourage Interaction

- 1. During the first day, interact at least once with every participant, and encourage participants to interact with you frequently. In response, it is likely that the participants (a) will overcome their shyness; (b) will realize that you are willing to interact and expect the interaction; and (c) will continue to interact with you throughout the remainder of the course.
- 2. Look carefully at each participant's work (including answers to short-answer exercises). Check to see if participants are having any problems, even if they do not ask for help. If you show interest and give each participant undivided attention, the participants will feel more compelled to do the work. Also, if the participants know that someone is interested in what they are doing, they are more likely to ask for help when they need it.
- 3. Be readily available to the participants at all times; remain in the room and look approachable (for example, do not read magazines or talk constantly with other facilitators).

Keep Participants Involved

4. Frequently ask questions of participants to check their understanding and to keep them actively thinking and participating. Questions that begin with "what", "why" or "how" require more than just a few words to answer. Avoid questions that can be answered with just one word (for example, "Do you understand?", or other questions beginning with "Do").

After asking a question, PAUSE. Give participants time to think and formulate a response. A common mistake is to ask a question and then answer it yourself. If no one answers your question, rephrasing it can help to break the tension of silence. But do not do this repeatedly. Some silence is productive.

- 5. Acknowledge all participants' responses. This will make the participants feel valued and encourage them and others to continue to participate. Do this with a comment, a "thank you" or a definite nod. If you think a participant has missed the point, ask for clarification or ask if another participant has a suggestion. If a participant feels his comment is ridiculed or ignored, he or she may withdraw from the discussion entirely or not speak spontaneously again.
- 6. Answer participants' questions willingly, and encourage participants to ask

questions when they think of them, rather than to hold the questions until a later time.

- 7. Use names when you call on participants to speak, and when you give them credit or thanks. Use the speaker's name when you refer back to a previous comment.
- 8. Always maintain eye contact with the participants so that everyone feels included. Be careful not to always look at the same participants. Looking at a participant for a few seconds will often prompt a reply, even from a reticent person.

Keep the Session Focused and Lively

- 9. Keep your presentations lively:
 - # present information conversationally rather than read it
 - # move around the room and use natural hand gestures
 - # speak clearly; vary the pace and pitch of your voice
 - # use a variety of methods to present information, such as written materials, writing on a board or flipchart, demonstration, lecturing, and discussion.
- 10. At the beginning of a discussion, write the main question on the flipchart. Having the question visible will help most participants keep themselves on track. When needed, walk to the flipchart and point to the question. Do not turn your back to the group for long periods as you write.

Paraphrase and summarize frequently to keep participants focused on a clear idea and to keep discussions on track. Ask participants for clarification of statements as needed. Also, encourage other participants to ask a speaker to repeat or clarify a statement if necessary.

Restate the original question to the group to get them focused on the main issue again. If you feel someone will resist getting back on track, first pause to get the group's attention, tell them you think they have gone astray, and then restate the original question.

Do not let several participants talk at once. When this occurs, stop the talkers and assign an order for speaking. For example, say "Let's hear Ms Baria's comment first, then Dr Salvador's, then Mr Mendoza's". People usually will not interrupt if they know their turn to talk will come. Thank participants whose comments are succinct and to the point.

11. Write key ideas on a flipchart as they are offered. This is a good way to acknowledge responses. The speakers will know their suggestion has been heard and will have the gratification of having it recorded for the entire group to see.

When recording ideas on a flipchart, use the participant's own words if possible. If you must be more brief, paraphrase the idea and check it with the participant before writing it. You want to be sure each participant feels you understood and recorded his or her idea accurately.

12. Try to encourage the quieter participants to talk. Ask to hear from a participant in the group who has not spoken before, or walk towards someone who is silent, in order to focus attention and make this person feel he or she is being asked to talk.

Manage any Problems

- 13. Manage the participant who talks too much. Some suggestions:
 - < Record the participant's main idea on the flipchart. As he or she continues to talk, point to the idea on the flipchart and say, "Thank you, we have already covered your suggestion." Then ask the group for another idea.
 - < When the participant pauses, break in quickly and ask to hear from another member of the group.
 - < Do not ask the talkative participant any more questions. If he or she answers all the questions directed to the group, ask for an answer from another individual specifically or from a specific subgroup. For example: "Does anyone on this side of the table have an idea?".
 - < Walk towards the participant when he or she is talking to make him or her feel self-conscious. Alternatively, walk away from the participant or turn away to focus attention away.
- 14. Try to identify participants who have difficulty understanding or speaking the language. Speak slowly and distinctly so you can be more easily understood and encourage the participants in their efforts to communicate.

Discuss with the Course Director any language problems which seriously impair the ability of a participant to understand the material. It may be possible to arrange help for the participant.

Discuss disruptive participants with your co-facilitator or with the Course Director. The Course Director may be able to discuss matters privately with the disruptive individual or make arrangements for other activities for him or her.

Reinforce Participants' Efforts

- 15. As a facilitator, you will have your own style of interacting with participants. Pay attention to the following points in order to put participants at ease:
 - # avoid facial expressions or comments that could cause participants to feel

ridiculed

- # sit or bend down to be on the same level when talking to the participant
- # do not answer hurriedly
- # encourage participants to speak to you by allowing them time
- # express interest, e.g. "That's a good question/suggestion" (don't overdo this!).
- 16. Encourage participants who:
 - # try hard
 - # ask for an explanation of a confusing point
 - # do a good job on an exercise
 - *#* participate in group discussions
 - # help other participants (without distracting them).

B. General techniques for relating modules to participants' jobs

- 1. Discuss the application of new concepts to real problems this is the one facilitator function that will ensure that participants begin to think about how to apply what they are learning.
- 2. Ask participants whether they can use the skills in their districts and discuss potential difficulties in implementation.
- 3. Encourage participants who discuss or ask questions about the practical application of skills (by acknowledging and responding to their concerns).
- 4. Do not reject alternative methods suggested by participants; discuss these methods thoughtfully and compare them to those in the module.

C. General techniques for assisting co-facilitators

- 1. Help each other in providing individual feedback and conducting group discussions. One facilitator may lead a group discussion and the other may record important ideas on the flipchart, or check the *Facilitator's Guide* and add any points that have been omitted.
- 2. Work together on *each* module rather than taking turns "dropping out" of a module.

D. Special circumstances

While participants are working

- # Before each exercise, review the relevant points in the *Facilitator's Guide* so you will be prepared to discuss the exercise with participants.
- # Look available, interested, and ready to help.
- # Encourage participants to ask questions whenever they would like some help.
- # If important issues or questions arise when you are talking with an individual, make a note of them to discuss later with the entire group.
- # If a question arises which you feel you cannot answer adequately, obtain assistance as soon as possible from another facilitator or from the Course Director.
 While providing individual feedback

- # Before the individual feedback session, refer to the appropriate "Detailed Guidelines" to remind yourself of the purpose of the feedback and the major points to make during the discussion. Also, check in the module to see if there have been any relevant exercises since the previous discussion.
- # Compare the participant's answer to any short-answer exercise with the answer provided in the module. Compare the participant's answer to the individual feedback exercise with the answer sheet. If there is one definite answer provided, be sure the participant's answer is correct. If the answer provided to any exercise is labeled "Possible Answers", the participant's answer does not need to match exactly, provided it is reasonable.
- # If the participant's answer to any exercise is not correct or is not reasonable, ask the participant questions to determine why the error was made. There may be many reasons for an incorrect answer. For example, a participant may not understand certain terms used in the exercise, may be unable to do a mathematical calculation, or may not understand a basic concept.
- # Once you have identified the reason(s) for the incorrect answer to an exercise, help the participant correct the problem. For example, if the participant has difficulty understanding the concept itself, you might try relating it to situations in his or her own district or country. After the participant has understood the terms or concept that caused difficulties ask him or her to work the exercise or part of the exercise again, so that he or she can be sure of understanding it.
- # Summarize, or ask the participant to summarize, what was done in the exercise and why it was done. Emphasize that it is most important to learn and remember the concept or the process demonstrated by the exercise. Give the participant a copy of the answer sheet, if one is provided.
- # Always reinforce the participant for good work by (for example):
 - commenting positively on his or her understanding of the concept
 - showing interest or enthusiasm in application of concepts to his or her work
 - telling the participant the procedure learnt will result in a better job at home
 - telling the participant you enjoy discussing these issues with him or her
 - letting the participant know that his or her hard work is appreciated.

When leading a group discussion

- # Plan to conduct the group discussion at a time when you are certain that all participants will have completed the preceding work. Wait to announce this time until most participants are ready, so that others will not have to hurry.
- # Before beginning the discussion, refer to the appropriate "Detailed Guidelines" to remind yourself of the purpose of the discussion and the major points to make.
- # Always begin by telling the participants the purpose of the group discussion.
- # Usually there is no single correct answer that needs to be agreed on in a discussion. Just be sure the conclusions of the group are reasonable and that all participants understand how the conclusions were reached.
- # Try to get most of the group members involved in the discussion. Record key ideas on a flipchart as they are offered. Keep your participation to a minimum, but ask questions to keep the discussion active and on track.
- # Always summarize, or ask a participant to summarize, what was done in the exercise and why it was done. Emphasize that it is most important to learn and to remember the concept or the process demonstrated by the exercise. Give participants a copy of the answer sheet, if one is provided.
- # Ask participants questions to encourage them to think about use of the concept or process in their district or country. For example: are the necessary data collected in your district? Do you believe you could do this in your district? If not, what would you do differently to accomplish the same result?
- # Reinforce the participants for their good work by (for example):
 - praising them for the list they compiled
 - commenting on their understanding of the exercise
 - commenting on creative or useful suggestions for applying the concept on the job
 - praising them for their ability to work together as a group.

When coordinating a role play

- # Before the role play begins, refer to the "Detailed Guidelines" to remind yourself of the purpose of the role play, roles to be assigned, background information to be provided, issues to be covered, and main points to be made in the subsequent group discussion.
- # As participants come to you for instructions before the exercise begins:

Assign roles to participants. Initially, at least, select individuals who are outgoing rather than shy – possibly volunteers. If needed, a facilitator may set a model for the group by acting in the role play.

Provide key participants in the role play with props appropriate for the exercise (for example, a cough remedy, a bowl and spoon). If there are no ready-made props available, encourage the role players to be creative and to think of props they might use.

Encourage participants in the role play to get up periodically and move around during their performance.

Ask participants in the role play to speak clearly and loud enough for other group members to hear.

Allow enough preparation time for participants.

- # When all participants are ready for the role play to begin, arrange their placement. If only 2 or 3 participants will assume roles, put them apart from the rest of the group. Push the table and chairs aside as needed. If all participants in the group will assume a role, have everyone sit in a circle, with or without a table as appropriate or preferred.
- # Begin by introducing the players in their roles and stating the purpose or situation.
- # During the role play, interrupt only if the participants are having serious difficulties.
- # When the role play is finished, thank the participants. Ensure that feedback provided to role players is considerate. Begin by discussing things done well in the role play, and then discuss ways it could have been improved.
- # Try to get all group members involved in the discussion after the role play.
- # Always conclude the exercise by asking participants to summarize what they learned from the role play.

DETAILED GUIDELINES

Distribute and introduce the module

Briefly introduce the module by explaining that it describes the activities that are needed to prepare for, to detect, and to control epidemics of diarrhoeal disease.

Remind participants that they learnt about the case management of cholera and dysentery using the case management module. By reading this module and doing the exercises, they will acquire the skills needed to prepare for and detect possible outbreaks of diarrhoeal disease and will learn about appropriate response and control measures.

Exercise A: Group discussion - Reviewing forms used to record routine data

Participants read pages 5 through 9 of Participant's manual and do exercise A.

Learning point: becoming familiar with the forms and assessing them

Preparation

Obtain copies of the forms that are used at local health facilities to record information about patients with diarrhoea. These might be:

- (a) a tally form,
- (b) a monthly summary form
- (c) an immediate notification form
- (d) a patient register (if you cannot get a page from a patient register, write down the information that is asked for in the column headings).

These forms should be requested in the invitation letter (Annex A)

Ask participants whether bloody diarrhoea is recorded separately from non-bloody diarrhoea. Point out that this is important, since it makes it possible to detect outbreaks of dysentery promptly. You may wish to ask some or all of the following questions about the forms:

- C What is the form called?
- C Who completes the form?
- C How often is the form filled in?
- C Where is the form sent?
- C How is the form analysed?
- C What kind of feedback is provided?
- C How long does it take before the originator gets feedback?

Exercise B: Individual exercise - Making a table of cases of cholera in Dwamish District

Participants read pages 10 through 13 of Participant's manual and do exercise B.

Learning point: making clear tables

Procedures

Check the participants' answers against the answer sheet. If there are differences, find out why the participant made the table in that way. Give the participant a copy of the answer sheet and discuss the correct answer with the participant.

Answer sheet for exercise B (Tables)

1)				
Cases of cholera reported in Dwamish district, 3-23 July, by facility				
Health facility	3-9 July	10-16 July	17-23 July	TOTAL
Ochoco Health Centre	30	26	14	70
Camas Post	12	12	20	44
Marsh temporary treatment centre	49	34	28	111
ALL FACILITIES	91	72	62	225

2) A descriptive title for the table can be:

- Cases of cholera reported in Dwamish district 3 July to 23 July, by health facility
- 3) There were 62 cases reported in the 3rd full week of July.

Hint: In the discussion, use good tables and titles developed by participants, even if they are different from those in the answer sheet.

Exercise C: Individual exercise – Making a bar-graph and a line-graph

Participants read pages 14 through 18 of Participant's manual and do exercise C

Learning point: monthly graphs are useful - learn to do them

Procedures

Obtain a block of graph paper (or see end of Participant's Manual).

Check the participant's answers against the answer sheet. If there are differences, discuss the correct answers with the participant. Give the participant a copy of the answer sheet.

Although the title written by the participant may use different words than that on the answer sheet, it should cover the following: a) *who or what* is described, b) the *time* covered and c) the *place(s)* involved. If the participant used scales on the y axis that are very different from the ones on the answer sheets, ask how he or she chose the scales. Scales different from those on the answer sheet are not "wrong"; the ones on the answer sheet were chosen to make it easy to see changes in the number of cases, and to leave some room for an increase in cases.

After discussing the participant's answers to the exercise, suggest that the participant close the module and talk with you about how these types of graphs could be used. Ask questions about his or her health facility:

- ! Are graphs of the number of cases of watery diarrhoea routinely made?
- ! Are graphs of the number of cases of bloody diarrhoea routinely made?
- ! How often the graphs are made or updated?
- ! How soon are the graphs made after the cases have occurred?
- ! What use is made of the graphs?

If graphs are not made, ask the participant to suggest ways they might be used.

Optional - Establishing the Y axis for routine graphs of bloody diarrhoea at the health facility

Ask the participant if he or she has an idea of how many cases of bloody diarrhoea are usually seen at their health facility in a given period. If the participant can estimate the number, then ask him or her to propose the scale for the \mathbf{Y} axis that would be used at the health facility for a graph to track cases of bloody diarrhoea. A useful scale is one that extends somewhat higher than the usual number of cases.

If the participant does not know, or says that cases of bloody diarrhoea are not recorded separately from cases of watery diarrhoea, suggest that health workers begin immediately to make graphs of the numbers of cases of bloody diarrhoea per week. Point out that, after the health facility has an idea of how many cases of bloody diarrhoea typically occur, it will be easier to detect an outbreak.

EXERCISE C: GRAPHS Individual exercise

In this exercise, you will make a bar-graph, using the data in the table. Draw your graph in the space below (graph paper at the end of the *Participant's manual*).

Bloody Diarrhoea – Cases and Deaths Hillside Health Post, by day			
Date	Number of cases	Number of deaths	
May 1st	0	0	
May 2nd	2	0	
May 3rd	1	0	
May 4th	4	1	
May 5th	5	0	
May 6th	4	1	
May 7th	9	2	

Hillside - bloody diarrhoea Cases and deaths, May 1-7



When you

look at the

graph, you can quickly visualize the increase and decrease in cases. The table, on the other hand, shows the exact number of cases treated each day, and the total number of cases seen. If you want a graph to show exact numbers, you can write the number of cases above the top of the bar, as was done in this example.

Exercise D: Short Answer exercise – Outbreaks of diarrhoeal disease

Participants read page 19 of Participant's manual and do exercise D.

Learning point: recognizing cholera outbreaks

Procedures

Check the participant's answers against the answers (see below). If participants did not answer well, ask questions to determine why, explain the answers, and refer them to the information in the module.

If there are participants from an area where cholera is known to be present (where there is endemic cholera, or where there is an outbreak), remind them that an outbreak of cholera is suspected when "there is a sudden increase in the daily number of patients with acute watery diarrhoea, especially patients who pass the 'rice water' stools typical of cholera".

Answer Sheet for exercise D (Outbreaks)

- 1. The usual number of cases is 6-12 a week (since there are 1-2 cases a day), so the number of cases did not increase. However, 3 of 12 patients died, which is an increase in the number of deaths. Even though the increase in cases is not sufficient to suspect an epidemic, you should check what is happening.
- 2. Yes, you should suspect an outbreak whenever a person aged five years or older develops severe dehydration or dies from acute watery diarrhoea.
- 3. Yes, you would suspect an outbreak, even if there were only one adult. In an area where cholera is not present, even one case is an unusual increase.
- 4. You should investigate the possible onset of an outbreak of epidemic dysentery at the same time as the cholera outbreak.
- 5. How old were the children? If one or both were older than 5, suspect cholera. If both children are under five the definition for a cholera outbreak is not met¹.

¹

You should however try and obtain more information: there were no deaths from diarrhoea until recently and 2 deaths may constitute an unusual increase.

Exercise E: Group discussion -Notification of suspected epidemics

Participants read page 20 of Participant's manual and do exercise E.

Learning point: identify and critically assess reporting facilities

Preparation

Obtain the form(s) used to report suspected outbreaks, and make a copy for each participant.

Find out the name, title and address of the person(s) whom participants should notify of suspected epidemics.

Find out the means by which that person can be contacted (list the physical address, telephone, fax, telex numbers etc.).

Procedures

While participants are working, write the name and address of the person whom participants should notify of a suspected epidemic on a page of the flipchart. If participants come from several places, list the information on sheets of paper in advance, and give each person the information needed for his or her own area.

While participants are working, copy the following column headings onto the top of another page on the flipchart.

Method of Notification	Time needed	Availability	Reliability

Next, ask them to open their modules to page 20 of *Participant's manual* (Exercise E). Display the flipchart page on which you have written the name and address of the person to be notified, and of the alternate if the first person cannot be reached. Ask participants to copy the information into their module, in the space provided on the page for exercise E of *Participant's manual*. If they come from different areas and will notify different persons, give each participant a paper with the information for their own situation.

Next, display the flipchart page on which you have written the column headings. Ask a volunteer to tell you one method that he or she would use for notification, to name the advantages and disadvantages of the method, to estimate the time it would take for the notification to arrive, and to estimate the reliability of the method. Record the answer on the flipchart.

Ask another participant for another method and record the answer on the flipchart.

Continue until participants have suggested a good number of possibilities. Because conditions may differ widely from one area to another, there is no answer sheet for this exercise, but the participants should mention some of the following methods:

- ! telephone
- ! fax
- ! radio
- ! telegram
- ! telex
- ! courier (official, as a Ministry of Health employee, or informal, as a message given to a taxi or bus driver).

If participants suggest modifications or additions to any items on the list, listen to suggestions and amend the answers recorded on the flipchart, if appropriate. Point out that a method that is reliable in one district may be unreliable in another, and that a method that is rapid for one health facility may be slow for another.

When the participants have completed the list, ask them to suggest ways to improve the means of communication. Record the answers on another page on the flipchart.

Next, ask each participant to decide which method is the best for his or her own health facility. Ask them to indicate the method of communication they will use.

You may discuss and indicate which method:

- is more appropriate for a health centre;
- is more appropriate at district level;
- is available at present.

Points

All health facilities should have a supply of the forms needed to report suspected epidemics, and participants should try to assure that these forms are distributed and understood. In many cases, the most rapid method of notification (e.g., telephone, radio, telex) will not actually involve sending the form. In such cases, health workers should fill out the form completely, and then use the form as a guide when calling in the notification. This will ensure that no important information is left out. The form should then be sent in, even though notification has been made by another method. When participants return to their areas of work they should ensure that the local person(s) responsible for notification are aware of whom to contact and how to contact them.

Health facilities may want to periodically test the speed and reliability of the available means of communication. If the means of communication available to the participants are not always reliable, the notification of a suspected epidemic may be sent by several methods. This increases the likelihood that the message will be received.

Exercise F: Group demonstration – Handling stool specimens

Participants read pages 21 through 27 of Participant's manual and do exercise F.

Learning point: how to prepare a stool specimen safely

Preparation

Find out the name, address and telephone and fax numbers of the laboratory to which participants should send specimens.

Obtain the items needed to perform demonstrations of the collection, packing and labeling stool specimens.

Obtain the following items (read the instructions on pages 27 through 30 of the Participant's manual to review how each would be used). Try to obtain the same type of material that will be used by health workers in the area.

- ! cotton tipped swabs* (6)
- **!** screw-cap bottles* (3-4)
- ! Cary-Blair transport medium (made up into bottles, 3)
- ! Alkaline peptone water* (3-4 bottles)
- ! blotting paper*
- ! plastic bags and methods for sealing them*
- ! pens / indelible marking pens (1-2)
- ! Stool Specimen Data Sheets* (6+)
- ! first-aid tape or masking tape (1 roll)
- boxes, insulated boxes and materials that will keep specimens cold (1 at least)
- ! something that can be used as "stool", such as mud, or earth mixed with water (it may be useful to use a brightly coloured material so that any spilling shows).
- * Enough for at least 3 demonstrations (one for the facilitator to use for practice before the course, one for the facilitator to use for the demonstration in exercise G and one for the participants to a return demonstration).

Procedures

Do a demonstration in which you show participants how to put a stool specimen into Cary-Blair transport medium and how to pack the specimen.

After you have finished, ask a volunteer to take a specimen of "fresh stool" and place it in the Cary-Blair transport medium, explaining each step.

Praise the participant for all steps that were done well, and correct the steps that were done wrong, or omitted.

Ask another volunteer to demonstrate how to pack a stool specimen for suspected epidemic dysentery for transport, and to explain each step. Praise him or her for what was done well and correct anything that was done wrong or omitted.

After the return demonstrations, ask participants to check whether any of the "stool" has contaminated the area where the stool was collected, or whether any "stool" is on the participants' skin or clothes. After they have looked, point out that since even small amounts of stool that contains *Shigella dysenteriae* type 1 may transmit the disease, great care is needed during the collection of specimens to avoid contamination.

Points

Be sure that all participants have an unobstructed view of the demonstration. Ask them to move, if necessary.

Speak slowly and clearly. Be sure that everyone can hear you.

Before beginning, indicate each of the materials that you will use in the demonstration; give its name and explain what it is. Allow participants to examine any materials that they are not familiar with.

Conduct each step in the demonstration in a logical order, and explain each step as you do it. If needed, hold or display materials in such a way that all participants can easily see what you are doing.

Epidemic dysentery can be transmitted when materials are contaminated with relatively small amounts of stool. The collection and transport of stool must be done without contaminating personnel or objects.

Participants may seek the advice and help from colleagues in Expanded Programme on Immunization (EPI) to get information and materials needed to assure that specimens are transported cold.

Exercise G: Individual exercise – Record information on specimen collection and transport

Participants do exercise G (page 27 of Participant's manual).

Learning point: how to record and send specimens

Preparation

Before the course, you should have obtained the addresses and telephone numbers of the laboratory for each of the health facilities concerned and the name of the person responsible for specimens, if possible.

Procedures

While participants are working, write the name, address and phone number of the laboratory on a page of the flipchart. If participants come from different areas and will use different laboratories, it may be easier to write the information for each laboratory on a sheet of paper and give it to the individual(s) who will use that laboratory.

Part 1 of exercise G

Ask participants to go to page 27 of the manual and look at Part 1 of exercise G. Tell them they should write down the name, address and phone numbers of the laboratories to which they should send stool specimens for suspected epidemic diarrhoeal diseases. Show them the flipchart page with the name, address and phone number of the laboratory, and ask them to copy the information in the space provided on page 27. Check that the participants copied the information accurately.

Part 2 of exercise G

In this part of the exercise, participants should identify who is the best person at their health facility to be responsible for collection and transport of specimens to the laboratory, and write down that person's name.

Part 3 of exercise G

In this part of the exercise, participants will write a description of how the specimens will be transported to the laboratory.

Review answers to Parts 2 and 3. Ask questions to be sure the participants have considered who the best person is to collect specimens, and the best transport method.

Points

When participants return to their workplaces, they should ensure that the local person(s) responsible for collection and transport of specimens know(s) how to collect and transport specimens, and know(s) where the specimens should be sent.

Exercise H: Individual exercise - Estimate the amount of treatment supplies

Participants read pages 28 through 32 of Participant's manual and do exercise H.

Learning point: knowing the quantities of supplies to order in preparation for a cholera / dysentery outbreak

Preparation

Obtain the catchment population of each participant's district.

If possible, make sure that the information for exercise H does not contradict national policy. If it does, the issue should be settled before starting the workshop.

Procedures

Check the participant's answers. You do not need to check each of the items on the list, but select several and ask the participant to explain how he or she arrived at the figure listed.

Questions may arise as to the use of antibiotics for prophylaxis, for instance. If the guidelines and the local policy differ, you should be aware of this, or an explanation should have been provided prior to the workshop.

Exercise I: Individual exercise and group discussion – Listing other supplies needed

Participants read pages 33 through 34 of Participant's manual and do exercise I.

Learning point:
knowing how much of "other supplies" must be made ready in preparation for a
cholera / dysentery outbreak

Procedures

While participants are working, copy the column headings from exercise I onto a page of the flipchart.

Туре	Availability	Who can mobilize?	Comments

Check participants' answers to be sure that they are thoughtful and realistic. Ask participants which of the items they have listed are available now, and which are not. Ask them how they would obtain the items that are not now available.

When participants have finished, ask volunteers to suggest supplies that might be required during an epidemic of diarrhoeal disease. Write responses on the flipchart under the appropriate heading.

After the participants have given a good list of supplies, ask them to consider which of the listed items would be needed *in their own areas*. Then ask them add any new items to their original list on exercise I.

Advise the participants to show the completed list to their local Epidemic Preparedness Committee when they return to their area, asking the Committee members for advice on how to make the list more useful for their district.

Exercise J: Individual exercise – Develop an Epidemic Preparedness Plan

Participants read pages 35 through 37 of Participant's Manual and do exercise J.

Learning point: setting up an Epidemic Preparedness Plan

Procedures

Ask participants from the same health facility or same district to work together on the Epidemic Preparedness Plan.

Give participants paper for a rough draft.

When reviewing a participant's answers:

- be sure that he or she has included at least one entry for each of the topics covered in chapter one (see summary of chapter on page 35 of this document)
- if you see several items that might logically be grouped together, ask the participant to propose a heading for them. Help the participant arrange the items in the plan in a logical manner (either chronological, or by topic)
- check that there is a relation between the activities listed and the proposed supplies needed and the proposed time. Has the participant considered all the resources and supplies that would be needed? Is the time appropriate?

The example on page 36 of *Participant's manual* is not a model. It is **one** of the ways to fill in the worksheet.

When you and the participant are satisfied that the list is comprehensive and organized, ask the participant to copy it onto the form on page 37 of *Participant's manual*.
Exercise K: Individual exercise – Members of the Epidemic Control Committee

Participants do exercise K (page 38 of Participant's manual).

Learning point: how to set up an Epidemic Control Committee

Procedures

Check that the participant has made thoughtful proposals. Has the participant:

- listed several kinds of roles and responsibilities?
- listed persons from other sectors than health, such as "water" and "community leaders"
- proposed appropriate persons to fill the roles? You may want to ask questions to find out more about the persons proposed for certain roles
- listed himself or herself as a member of the committee?

If the participant is already a member of the Epidemic Control Committee, ask how her or his role will change as a result of having attended this course. Ask participants who are not now members of the Epidemic Control Committee whether they think that they should be appointed to the committee, and what responsibilities they should undertake.

Revision summary of chapter 1

Procedures

Ask participants to read page 39 of *Participant's manual*. Ask individual volunteers to take turns in summarizing the important preparedness activities, using the headings on page 39.

Ask if there are any questions about the items on page 39 (if participants ask about control measures, inform them that they will learn about them in the next chapter).

If you wish to evaluate the learning process, you may ask the participants to reply individually to the following:

- state one or more training items you found useful,
- state one or more items where you had problems and suggest how this could be improved.

Exercise L: Individual exercise and group discussion - "Case histories"

Participants read pages 41 through 44 of Participant's Manual and do exercise L.

Learning point: acquire appropriate reflexes in outbreak situations

Procedures

Check the participant's answers against the answer sheet. Discuss any differences with the participant.

Question 1:

When all participants have finished, ask a volunteer to say what he or she wrote as an answer to the first question. Record key words on a page of the flipchart. Ask the participant to explain how they chose their answer. Then ask other participants to add their own answers, and explain why they chose them.

If participants do not make it clear in their responses, ask questions to bring out that two things need to be accomplished:

- (1) to get specimens to the laboratory for testing you need to know whether the disease is epidemic dysentery and to know the antibiotic sensitivities
- (2) to ensure a supply of the antibiotic that is recommended for *Shigella dysenteriae* type 1 dysentery.

Question 2:

Ask a volunteer to answer this question. Write the key words on the flipchart page, and ask other participants for comments and additional responses. Ask participants why it may be dangerous to take the body of a person who died of cholera or of epidemic dysentery back to their village for burial. Continue to ask questions until they make the following points (if participants do not, the facilitator may):

- (1) people may come from many different places to the funeral, and if they become infected, they may spread the disease to many places upon their return
- (2) traditional funeral practices may lead to contamination and infection
- (3) it is best to dispose of the body close to the place of death, and quickly.

Question 3:

Ask a participant for the answer and discuss.

Give each participant a copy of the answer sheet.

Answer Sheet for exercise L (Case histories)

"What Would You Do Next?"

Possible Answers:

Question 1:

You need to accomplish two things:

(1) get specimens to the laboratory for testing so that you know whether the disease is epidemic dysentery and what the antibiotic sensitivities are, and

(2) ensure a supply of the antibiotic that is recommended for *Shigella dysenteriae* type 1 dysentery.

Arrange for laboratory confirmation

- collect specimens
- send specimens.

Assure a supply of recommended antibiotic(s)

- do an inventory of what is available in health facilities and district store
- consult programme on diarrhoeal disease control (CDD) for the latest antibiotic recommendations
- calculate the amount of antibiotic(s) needed
- order the antibiotics and distribute to affected health facilities
- similarly, check, calculate and order "other supplies".

Other:

- immediately report the suspected cases
- investigate, if further cases occur in the area
- List and implement simple control measures (hand washing, latrines, health education messages).

Question 2:

- teach the family how to prevent the transmission of dysentery
- urge the family not to take the body back to the patient's village, but to dispose of the body close to the place of death
- arrange for supervision of the burial.

Question 3:

- send a Mobile Control Team to investigate the situation
- set up a Temporary Treatment Centre in the village.

Exercise M: Short answer exercise – Outbreak

Participants do exercise M (page 45 of Participant's manual).

Learning point: how to identify possible outbreaks

Procedures

Check the participant's answers against those given (see below, or on page 46 in the *Participant's Manual*). Discuss any differences.

Answers:

- 1. You do not know which health centre has had the most cases, since reporting is incomplete. Crater Health Centre may in fact have the most cases.
- 2. The number of cases does not appear to be increasing at any of the centres. However, it is impossible to know from the data available whether cases are increasing or decreasing at Crater Health Centre.
- 3. The case fatality ratio is the proportion or percentage of ill people who die. It is calculated by dividing the number of deaths reported during a period by the number of new cases reported during the same period. Here it is 8/20, or 40%, for Crater Health Centre in week 1. From the available information, Crater Health Centre has the highest case fatality ratio.
- 4. The district health team should probably visit Crater Health Centre to find out:
 - why they are having difficulty reporting
 - if they are having difficulties with treatment
 - if their case fatality rate is still high
 - if they need additional help and supplies.

Exercise N: Individual exercise - Using a map to detect an epidemic

Participants read pages 47 through 50 of Participant's manual and do exercise N.

Learning point: visualizing where cases and outbreaks occur or risk occurring

Procedures

Check the participant's answers against those on the answer sheet.

Question 1: Did the participant mark the location of cases correctly on the map? Ask the participant where the total number of cases is the greatest.

Question 2: If the participant did not answer "Village C", ask him or her to look at the number of cases by month, one village at a time.

Answer Sheet for exercise N (Maps)

Question 1:

• = one case of dysentery in July O = one case of dysentery in August



Question 2:

Yes, there is evidence of an outbreak of dysentery. The number of cases has increased dramatically in Village C from May through August. In the other villages, the number of cases has stayed about the same, or declined. There appears to be an outbreak of epidemic dysentery in Village C. An urgent investigation is required.

Exercise O: Group discussion – Rumours

Participants read page 51 of Participant's manual and do exercise O.

Learning point: what to do about rumours

Procedures

Begin the discussion by asking the participants: "If you were the District Medical Officer or a member of the Epidemic Control Committee, how would you react to this newspaper report?"

Note key words from their answers on a page of the flipchart. There are no "right" or "wrong" answers, as the participants' responses will depend on the local situation.

Participants may mention some of the following issues:

- the District Medical Officer, or committee members, should contact health workers closest to the school to ask about the situation
- the District Medical Officer should arrange for an investigation of the situation at the school; to find out the following questions:
 - is there in fact a problem with diarrhoea?
 - if so, could it be due to cholera (or perhaps dysentery)?
 - how many people have been affected?
 - where have the pupils and teachers gone, now that the school is closed?
 - is there evidence of an outbreak of diarrhoeal disease in the surrounding area?
 - why was no report received through the routine or immediate reporting system?
- the newspaper report may be inaccurate (if participants suggest ignoring the newspaper report, ask them what the consequences might be).

Keep the discussion brief and to the point.

Exercise P: Individual exercise – Evaluating risky behaviours

Participants read pages 51 and 52 of Participant's manual and do exercise P.

Learning point: identifying and assessing risky behaviour

Procedures

Check the participant's answers against the answer sheet. If there are differences, or if the answer is incomplete, discuss the correct answer with the participant. Give the participant a copy of the answer sheet.

When the participants have finished, lead a discussion about groups of individuals or groups who might be at risk in the participant's areas. Write these headings on a page of the flipchart.

At Risk of Becoming Ill	At Risk of Severe Illness or Death

Ask volunteers to name persons or groups of persons who might be at risk of becoming ill during an epidemic of diarrhoeal disease in their area and to name individuals or groups who might be at high risk of severe illness or death, once they have become ill.

For each suggestion, ask the participant to say whether the risk is of "becoming ill" or whether it is of "severe illness or death".

Then, for each suggestion, ask *why* the person(s) is at risk – try to get the participant to focus on specific behaviours that make the person at risk. Write key words from the response on the flipchart.

Explain that in the chapter on control they will learn more about how to reduce the risks.

Answer Sheet for exercise P (Risks)

1. Mrs R.'s family

All the children are at risk because they are eating food that has been left out for hours. Food should be eaten while hot, or re-heated until it is thoroughly hot.

The baby at also risk because he is no longer breast-fed. He is getting milk from a bottle. Perhaps Mrs R. could take him to the market with her.

The family may be at risk because the father died of cholera – this means that they may be doing something that allows transmission.

2. Children buy bananas from a street vendor.

The children are at low risk. Undamaged fruit that is peeled may be eaten.

3. Patients and nurses – use of the washstand

If the nurses send the families to a wash stand 10 metres away it is likely that the families will not wash their hands. The nurses could take the opportunity to teach the importance of a clean wash station for everyone and get the families involved in keeping the wash station clean and supplying soap when needed.

The families could take turns cleaning the wash station and bringing soap. The nurses could help the families develop materials to hang near the wash station showing how to wash their hands and clean-up the wash stand.

4. Mrs D.

Hands should be dried on a clean cloth. Mrs D.'s skirt is not a clean cloth, and the edge of her skirt has probably been in contact with the ground.

5. Mr N.

Mr N. should make ice from boiled or treated water. Freezing does not make water safe for drinking.

6. S. Family

If the stools are disposed of in a designated area, they must be covered or buried. Always wash hands after handling stools!

Exercise Q: Individual exercise and group work - Task list (planning staff assignments)

Participants read pages 53 through 61 of Participant's manual and do exercise Q.

Learning point: how to plan staff assignments

Procedures

Ask participants who are from the same health facility or the same district to work together on this exercise.

Review the participant's list of tasks to be sure that the participant has considered appropriate tasks under each heading. Ask questions to remind the participant of any important tasks that were overlooked.

Ask the participant about several of the people who were listed as being responsible for certain tasks. Ask "Why did you choose that particular person?". The participant's answers should take into account:

- the background and training of the person
- the number of tasks that can realistically be assigned to one person.

Points

The right hand column "Trained for task" can be used by participants as a guide for planning training activities upon their return.

How many times does the same name appear?

Exercise R: Individual exercise and group discussion - Cholera outbreak, Ngoronga

Participants read pages 62 through 64 of Participant's manual and do exercise R.

Learning point: to react to a cholera outbreak		
•	decide on investigation	
•	investigate	
•	identify risks	
•	start control measures	

Procedures

Check the participant's answers against the answer sheet. Discuss any differences.

Give the participant a copy of the answer sheet.

Answer Sheet for exercise R (outbreak)

- 1. The Epidemic Control Committee tried to get information by radio on the number of cases. They decided to send a Mobile Control Team to assess the situation, and to set up a Temporary Treatment Centre. They radioed HQ for advice. They asked for help from the army.
- 2. The team debated whether it was better to move the kitchen or better to reinforce the training on hygiene. Finally, they decided to do both.
- 3. The team marked a field for defecation well away and downstream from the Temporary Treatment Centre. They asked the village authorities to instruct the population to defecate in that area and to cover the stools with earth. They left a shovel for the burial of faeces.

They organized the building of ventilated improved pit latrines the next day.

4. They dug a channel from the washing area to a gravel-pit about 20 m from the washing area.

Exercise S: Individual exercise - Improving health facility standards

Participants read pages 65 through 66 of Participant's manual and do exercise S.

Learning point: how to improve health facility standards

Procedures

Read the participants' worksheet. For several items to which the participant ticked the answer "Yes, always", ask further questions to find out if the health facility or health workers actually do meet the standard all the time, and in all areas. For example, ask the participant if there are accessible hand-washing facilities on *every* ward, or in *every* area where patients and their families might need to wash their hands.

For several of the questions to which the participant answered "No", ask further questions to help the participant define exactly where and what the problem is. Ask questions to be sure that the participant's proposed solutions are realistic and affordable.

Points

Participants may use the information in the right hand column "What action needs to be taken?" as a guide to plan training activities upon their return.

Revision summary of chapter 2

Procedures

Ask participants to read page 67 of *Participant's manual*. Ask individual volunteers to take turns in summarizing the important response activities, using the headings on page 67.

Ask if there are any questions about the items on page 67 (if participants ask about control measures, inform them that they will learn about them in the next chapter).

If you wish to evaluate the learning process, you may ask the participants to reply individually to the following:

- state one or more training items you found useful
- state one or more items where you had problems and suggest how this could be improved.

Exercise T: Group work - Preparing health education messages and posters

Participants read pages 69 through 75 of Participant's manual and do exercise T.

Learning point: prepare and critically review health education messages

Preparation

Obtain the materials needed to make health education posters, such as large format paper, heavy stock paper, pencils, pens, markers, paints, rulers. Try and get some of the posters which are used for health education in local hospitals/health centres.

Procedures

While participants are reading, write the following "checklist" on the flipchart:

- message clear and easy to understand
- instructions easy to follow and practical
- best way chosen to transmit the information
- message likely to reach the target population.

After participants have finished reading the health education messages, tell them they will review several of them, and then make their own messages and posters. Ask a volunteer to read **one** of the health education messages out loud. Then point to the checklist on the flipchart and ask the group to respond to the first two items on the list. They should say whether:

- the message is clear and easy to understand, and whether
- the instructions are easy to follow and practical.

Tell them that they will use the other two items on the list when reviewing the messages and posters they are going to make. Do **not** read the other messages. Distribute the materials needed for the posters and ask the participants to begin working in small groups. As they work, check that everyone understands the assignment and is working without problems. Each group should decide:

- what message to give
- what media to use (poster, written note, play-acting).

Each group then prepares the message. When they have finished, ask them in turn to show and explain their message(s)/poster(s), or to perform their play. Ask the participant and the others to ask the four questions on the flipchart "checklist" about the message/poster. For the last two items on the flipchart, ask the participant to say:

- who the target population for the message is
- how and where the message would be transmitted
- what efforts he or she would make to reach the target population.

After the exercise, you may ask for volunteers to give a performance of their play-acting or display the message/posters in the room(s) for the rest of the course. This is especially useful if you are working with several smaller groups.

Exercise U: Group work and practical demonstration – Water containers and water treatment

Participants read pages 75 through 78 of Participant's manual and do exercise U.

Learning point: treating and storing water safely

Preparation

Obtain samples of bottles, cups, storage jars (earthen or plastic) commonly used in the area.

Obtain droppers and/or small syringes (up to 5 cc).

Obtain samples of commonly-used chlorine-based disinfectants.

Procedures

Assemble materials and place them so that all the participants can easily see the containers.

- 1) Display the local water containers and ask participants to inspect each one and say whether or not it is suitable for home water storage. If they do not comment on the following in their explanation, ask them about:
 - the size of the mouth of the container
 - the presence or absence of a cover.
- 2) Perform a demonstration of using chlorine solution to treat water. Ask participants to move close enough to you so that they can see every aspect of the demonstration.

Do each step slowly, and explain as you do it. Allow participants to handle the materials after you have finished.

 Ask a volunteer to measure the volume of one of the local containers, and to calculate how much chlorine solution would be needed to treat the water it contains. Correct any mis-measurement or miscalculation.

Ask another volunteer to do the same, choosing a different container (preferably one with a different shape). Correct any mis-measurement or miscalculation.

- 4) Ask the participants who have not volunteered to practise measuring the volumes of different containers, and to use chlorine solution to treat the water in them. Observe the participants as they work, and correct any errors.
- 5) Thank the participants at the end of the exercise.

Exercise V: Group work and role play - Hand-washing

Participants read pages 79-80 of Participant's manual and do exercise V.

Learning point: how to teach people to wash their hands properly

Preparation

Obtain a bar of soap, a basin, a towel.

Procedures

Assemble the materials needed for the role play.

Perform the role play first, then ask for two participants to volunteer to repeat it.

Explain that you will act the part of someone who is teaching others the proper way to wash and dry their hands. Ask for a volunteer to play the part of the "learner".

Perform the role play with the volunteer. Be sure that the participants can see and hear you well. Follow these steps:

- 1) Tell the "learner" that you are going to teach the proper way to wash and dry his/her hands, and explain why it is important.
- 2) Slowly demonstrate the proper way to wash and dry the hands to the "learner", explaining each step.
- 3) Ask the "learner" to wash and dry his or her hands, as you watch.
- 4) Praise the "learner" for what he or she did well, and correct what was done wrongly by asking the "learner" to repeat these actions until he or she can do them correctly.

Thank the volunteer for being in the role play. Ask for 2 other volunteers to repeat the role play. When they have finished, thank them.

Lead a discussion about the role play. Ask participants these questions to begin the discussion:

- what is an effective way to teach someone to wash and dry their hands?
- what steps seemed to be easy, and which seemed to be hard? which do you think would be hard under normal circumstances?
- when is a good time to teach people to wash and dry their hands?
- which people in health facilities should be taught to wash and dry their hands correctly?

Exercise W: Group work - Drills on health education messages

Participants read pages 81 through 83 of Participant's manual and do exercise W.

Learning point: learn the main health education messages for diarrhoeal diseases

Preparation

Find out what materials are available locally for families to use to measure "3 drops of chlorine solution" and "1 litre". For example:

to measure drops:

- simple dropper tube/teaspoon
- syringe

to measure 1 litre

- bottle of "Brand X" cooking oil
- kitchen measures.

Write local answers in the space left blank in the answer column for that question in the drills (page 55 of this guide):

Obtain a variety of locally used containers that are used for home water storage. Get some that would be suitable (narrow mouth, cover) and some that would not.

Obtain locally available chlorine product(s) and droppers and/ or syringes to measure amount of chlorine solution.

Obtain several litre measures (used 1 litre IV bottles, graduated cylinders). These need not be measures that are available to the community, since it is health workers who use them to establish the volume of water contained in common containers.

Procedures

If participants are not familiar with drills from a previous course, explain that drills are a means of giving participants practice in certain important skills. Explain that you will ask questions and describe situations, and that the participants should respond with a health education message that answers the question, and is suitable for the situation. Participants may look in their modules for the answers, but there is only a very limited time allowed for each response. Most of the answers can be found in Annex 3 (Health Education).

Be sure that participants' seating is arranged so that you can easily ask questions of each person, in turn. You may want to ask participants to form their chairs into a circle or a semi-circle.

The questions for the drill, and the responses are in Table 1, on next two pages. The

column entitled "Situation" lists a question which you should ask the participants, or the situation which you should describe. The column entitled "Suggested Message" gives suggested responses.

When they reply, participants do not have to use not use the exact words that are suggested, but any *amounts* (such as the amount of chlorine solution) should be exactly as they are in the Suggested Message column.

Begin the drill by reading the first question listed in the "situation" column and selecting a participant to respond. Allow the participant a reasonably short period of time to answer. If the answer is correct, praise the participant and ask the next participant the next question. If the answer is not correct, or incomplete, ask the next participant to give the correct answer, or add to the answer.

Answer sheet for exercise W (Health education drills)

Drill on Health Education Messages			
Situation	Suggested Message		
If you do not have soap, what can you use to wash your hands?	Ashes or earth		
How many drops of chlorine solution should you add to a litre of water to make the water safe for drinking?	3 drops per litre		
Name one step that can help reduce the spread of epidemic dysentery in clinics and hospitals? Ask each person for one, and then move to the next person.	 provide soap and water for hand- washing wash hands between the examination of each patient health workers who care for dysentery patients should not prepare/serve food dispose of stools in a latrine or toilet, or bury them wash and disinfect patients' clothes and bed linen frequently 		
Describe how to boil water to make it safe.	<i>Heat water until it starts to boil vigorously, let it boil for one minute.</i>		
Give the 3 simple rules for cholera prevention	 Cook Your Food Boil Your Water Wash Your Hands 		
How should a family clean the soiled clothes of a dysentery or cholera patient?	Sun dry, then boil/disinfect, then wash. Do this far from a source of drinking-water		
What is the best way to wash your hands?	Always use plenty of soap or ash. Use plenty of clean water. Wash all parts of your hands – front, back, between the fingers and under the nails.		
How can families make their drinking- water safe at home?	Boil all drinking-water OR add 3 drops of chlorine solution to each litre of water		

Drill on Health Education Messages			
Situation	Suggested Message		
When should you wash your hands?	After you use the toilet or latrine, or clean up your children. Before you prepare or serve food. Before you eat, or before you feed your children.		
How should families store their water at home?	In a clean container, with a narrow opening and a lid.		
How should people get drinking-water out of its container?	By pouring water from the container, not the reverse.		
Give one rule for safe food preparation Move from participant to participant until all the messages have been given.	 Cook food thoroughly. Don't eat uncooked food, unless it can be peeled or shelled. Eat cooked foods immediately. Reheat thoroughly all cooked foods that have been stored. Eat then food while it is still hot. Avoid contact between raw foods and cooked foods. Wash hands repeatedly. Keep all kitchen surfaces clean. 		
You gave a health talk about home water purification to a community group. Afterwards, someone comes to you and says, "I understand that I should put 3 drops of chlorine solution into a litre of water. But I don't know how to measure "1 litre" and I don't have a way to measure 3 drops". What do you reply?	The answer will depend on what is locally available – list possibilities here: to measure 3 drops: to measure 1 litre:		
How should a baby's faeces be disposed of?	In a toilet or latrine. By burying the stool.		
How is epidemic dysentery transmitted?	By person-to-person contact. Through contaminated food. Through contaminated water.		

Exercise X: Short Answer Exercise – Control measures

Participants do exercise X (page 84 of the Participant's Manual only!)

Learning point: check points of knowledge

Preparation

Obtain materials needed. Get soap (and/or ash) and towels. Arrange for water for hand washing (basin, tap or sink).

Procedures

Check the participant's answers against those on the answer sheet (see answers below, or on page 85 in the *Participant's manual*). Discuss any differences.

Answers

1	False	Filtering water does not eliminate cholera vibrios or Shigella. However, cloudy or turbid water may be filtered <i>before</i> <i>chlorination</i> . Or it may be boiled vigorously instead of being chlorinated.		
2	False	If the <i>food itself</i> is contaminated, people who eat it may get sick, no matter how clean their hands are.		
3	True			
4	False	You must add 3 drops of chlorine solution to each litre of water.		
5	True			
6	True			
7	True			
8	False	Implementing ineffective control measures can cause harm.		
		 Mass chemoprophylaxis for cholera, or giving drugs for dysentery to people who are not ill may lead to resistance in the causative organisms. It often means that a more expensive drug must be used in the future 		
		 2) Implementing measures that do not work waste time, effort and money that could be devoted to measures that really save lives. 		
		 If the public has a <i>false sense of confidence</i>, because they believe health authorities are doing something, they may neglect to carry out control measures, such as food and water safety, in their homes and workplaces. 		

Revision summary of chapter 3

Procedures

Ask participants to read page 86 of *Participant's manual*. Ask individual volunteers to take turns in summarizing the important control activities, using the headings on page 86.

Ask if there are any questions about the items on page 86.

If you wish to evaluate the learning process, you may ask the participants to reply individually to the following questions:

- state one or more training items you found useful
- state one or more items where you had problems, and suggest how this could be improved.

Exercise Y: Case study and group discussion - Rivas district outbreak

Participants read pages 87 through 92 of Participant's manual.

Learning points: Remind participants this is a review of what they have learned

Procedures

While participants are doing the exercise, circulate and check that they have understood what to do and are making progress.

Provide individual feedback by checking the participant's answers against those on the Answer Sheet.

When all the participants have finished writing, review the questions in the exercise one by one. Read the question, and then ask for a volunteer to read his or her answer. Ask if others have anything else to contribute to the answer. Correct any errors or misunderstandings.

Answer Sheet for exercise Y (Case study)

Q 1: What are the main things that should be done to prepare for an outbreak?

Possible answers:

- set up an Epidemic Control Committee
- make provisions for setting up Temporary Treatment Centres
- make provisions mobilizing Mobile Control Teams
- maintain a reserve stock of essential supplies and equipment
- ensure clinical staff are up-to-date on case management of diarrhoea
- devise a strategy for assigning staff during an outbreak
- plan for logistics required
- ensure staff are aware of case-definitions and reporting procedures
- analyze own situation to minimize possibility of disease spread in health facilities
- prepare an Epidemic Preparedness Plan.

Q 2: If cholera or epidemic dysentery were introduced into the district, are there any

groups or individuals that are at high risk for getting ill? Are there any who are at high risk of dying, once they are ill? Name them and explain why you think they are at risk.

Possible answers:

Groups or individuals at high risk for getting ill:

- people who live in crowded Bayside neighborhood, where sanitation is poor
- people in Village A whose water source is the river and shallow wells
- people in Village B, since few families have latrines

Groups or individuals at high risk of dying, once they are ill:

- people who do not have access to a health worker or health facility, such as.
 - those who live in Bayside neighbourhood
 - those who live in Village B when the nurse is not present.
- *Q 3:* Should the District Medical Officer activate the Epidemic Preparedness Plan? Explain why or why not.

Answer:

No, the District Medical Officer should not activate the plan, because he or she has not been notified of a suspected case of cholera.

Because there has been no cholera in the area since 1991, the District Medical Officer should refer to the cholera case-definition for a suspected cholera case, as follows:

In an area where the disease is not known to be present, a patient older than 5 years develops severe dehydration or dies of acute watery diarrhoea.

The boy who died of acute watery diarrhoea was only 4 years old, so he cannot meet the casedefinition for cholera.

Points

This problem of age in the definition of cholera usually raises many questions in the audience. This is a good opportunity to stress the difference between clinical approach (the patient must be rehydrated) and the epidemiological approach (stick to the case definition).

Q 4: On the list put a check next to each of the patients who meet the case-definition for

cholera.

	Patient	Degree of dehydration	Outcome
х	14-year-old sister	severe	recovered
	50-year-old father	mild	recovered
	45-year-old mother	moderate	recovered
х	20-year-old woman	severe	recovered
	28-year-old man	moderate	recovered
х	5-year-old boy	severe	recovered
	10-month-old girl	severe	recovered
х	65-year-old man	severe	died
	3-year-old boy	mild	recovered

Points

Because there has been no cholera in the area since 1991, the District Medical Officer uses the cholera case-definition "In an area where the disease is not known to be present, a patient aged 5 years or more develops severe dehydration or dies from acute watery diarrhoea."

Note that the 5-year-old-boy does meet the case-definition.

Q 5: Should the District Medical Officer activate the Epidemic Preparedness Plan? Explain why or why not.

Answer:

Yes, he or she should activate the plan. Several cases of suspected cholera have been notified. Even if it had only been one case, action must be taken.

Q 6: What four things do you think the Epidemic Control Committee should do first?

Possible answers:

The suggested answers are all actions that should be taken as soon as an outbreak is suspected.

- immediately send a report of the suspected cases to the designated officer or level
- assure appropriate treatment of patients
- arrange for a simple investigation
- arrange for laboratory confirmation
- begin a line-listing of cases
- begin to implement control measures.

Q 7: What are the duties of the Epidemic Control Committee?

Possible answers:

The Epidemic Control Committee is responsible for preparing for an outbreak of diarrhoeal disease and for coordinating the response to an outbreak. To do this the committee:

Prepares for possible outbreaks

- writes an Epidemic Preparedness Plan
- maintains a reserve stock of essential supplies
- coordinates surveillance of diarrhoeal diseases

Coordinates the response to an outbreak

- reports the numbers of cases and deaths
- obtains, stores and distribute supplies
- implements, supervises and evaluates control measures.

Points

Participants may list individual control measures as well. If so, be sure that they have understood that implementation of control measures is just one part of the larger responsibilities of preparation and coordination.

Q 8: What should the District Medical Officer do?

Possible Answers:

The District Medical Officer must get information about Village B and should use any method to quickly contact the nurse there, or if the nurse is not there, to contact someone else, by telephone, by the radio or by sending someone, and explain to the nurse the importance of sending records and, if necessary, how to fill the records.

Q 9: What control measures should NOT be carried out?

Answers :

- mass chemoprophylaxis
- travel restrictions
- trade restrictions
- quarantine
- vaccination with the commonly available vaccines.

Q 10: What should the team look for when choosing a site for the Temporary Treatment *Centre*?

Possible answers:

- adequate water source
- good drainage away from the site
- easy to clean
- provisions for disposal of excreta, of vomit and of medical and other waste
- convenient hand-washing facilities
- good access for patients and supplies
- enough space.

Q 11: In what week was there the highest number of deaths? In what week did patients with suspected cholera have the greatest risk of dying?

	2-8 Jan	9-15 Jan	16-22 Jan	23-29 Jan
Cases	15	50	65	51
Deaths	3	5	3	0

Possible Answers:

Highest number of deaths

The highest number of deaths (5 in the second week).

A high number of deaths may occur early in an outbreak. There may be several reasons for this. It may be that:

- the number of cases overwhelmed the available facilities
- the health workers were not up-to-date on case management
- the health workers did not have the supplies they needed
- patients did not realize the seriousness of their illness, or did not know where to go for treatment.

Highest Case Fatality Rate

The case fatality rate is the number of deaths, divided by the number of cases, multiplied by 100. The case fatality rate for the first week was 20%, for the second week was 10% and for the third week was 4.6%. The reasons that the case fatality rate was high initially may be the same as those for the "high number of deaths"

Q 12: *How could the deaths have been prevented?*

The deaths could have been prevented if (a) ill patients had come promptly to health workers, if (b) health workers had all been trained in proper case management, if (c) all health workers had the equipment and supplies needed.

Q 13: What should the District Medical Officer do?

The District Medical Officer should officially report the outbreak and should also inform the community. If the District Medical Officer does not inform the public and enlist their cooperation in control efforts, he or she may lose an opportunity to halt the spread.

Question 14: What should be done?

- the water in the city's water system should be chlorinated, and repeatedly tested to be sure the level of chlorination is adequate
- the damaged water mains in the Bayside neighbourhood should be repaired; the people should be told why piercing the mains is dangerous
- the people of Bayside neighborhood must be provided with adequate safe drinking-water
- the public must be taught how to make water safe for drinking by boiling water, or by home chlorination of water, and if necessary they should be given the materials they need.

Q 15: What advice should the team give to solve each problem?

- a) The residents could not afford soap. They can use ashes or sand instead of soap.
- b) The residents could not afford the fuel needed to boil their water. They should be taught how to use chlorine solution to make water safe for drinking.
- c) Men who worked far from home usually carried a home-cooked lunch with them to work, and typically ate the lunch 6-8 hours after it had been cooked.The families should be told why this is dangerous, and be told the rules for safe food preparation. If the men cannot re-heat their lunches, they must carry food that is safe to eat without cooking, or, if they can, buy hot food at their place of work.

Q 16: What precautions should be observed to safeguard the health of the people who attend the festival?

Visitors must have access to plenty of safe water, and adequate means for disposing of excreta. Visitors should be taught about effective control measures, and be told why certain other "control measures" are not effective.

Q 17: Will this keep the outbreak from spreading? Explain your answer.

No, it will not keep the outbreak from spreading. Many people who are infected do not appear ill, or may be crossing the border before developing clinical illness.

Q 18: What should the District Medical Officer and the communities involved do now?

- They should review the response to the outbreak, and see what could be improved.
- They should revise their Epidemic Preparedness Plan, to reflect what they have learnt.
- They should work on long term measures to improve access to safe water and to improve hygiene.

Summary

Thank the participants for their hard work during the course, and remind them that they will be able to put what they learnt into practice as they continue to work on their Epidemic Preparedness Plan.

ADDITIONAL POINTS TO TELL PARTICIPANTS ARE:

ANNEXES

Annex 1. Evaluation

Preferably at the end of each day, and at least at the end of each chapter, the participants should answer the following questions:

– Do you feel you have mastered the elements of the manual you have seen today/in this chapter?

- Is there any item in the training you have received and exercises you have done (today/in this chapter) with which you are still not comfortable? If so, explain why?
- Was there any element of the learning process that you found particularly useful? If so, which?
- Was there any element of the learning process that was difficult for you and that you are not satisfied with? If so, please explain.

Thank you.

Alternatively, the facilitator may wish to list the elements and ask the participants to rate them on a scale form "unsatisfactory" to "very satisfactory". However, the simpler approach outlined above has been found useful in previous trials.

Annex 2. Sample draft for invitation letter

As coordinator of the workshop, you may find it useful to send the following letter (or an adaptation thereof) to the participants before the start of the workshop.

Dear <name of participant>,

I am pleased to learn that you have been chosen to take part in the workshop on Epidemic Diarrhoeal Disease – Preparedness and Response, to be held in < > from < > to < >.

The success of this workshop will largely depend on your own contribution. I should therefore be glad if you could bring with you one or more copies of the documents you make use of in your activities regarding the control of epidemic diarrhoeal disease. The following items would be particularly useful:

- C copies of registry entries
- C copies of tally sheets
- C copies of special "diarrhoea" registers, if any
- C forms used for notification, reporting, etc
- C forms used to send specimens
- C health education messages used in your district or area
- C other documents you have found useful.

These documents will help us discuss the problems of epidemic diarrhoeal disease control on the basis of material which is as close as possible to the realities of your working environment.

Thank you for your help in this matter. I look forward to meeting you in < >.

(Sd) Workshop coordinator

Annex 3. Suggested timetable (to be adapted)

The following 3-day timetable has been suggested and used in training sessions and you may wish to base your own timetable on this. It is preferable to use more than 3 days if possible.

EPIDEMIC DIARRHOEAL DISEASE PREPAREDNESS AND RESPONSE

Day 1

08.30 - 10.00	Welcome (15 min)
	INTRODUCTION (20 min)
	CHAPTER 1 : PREPAREDNESS AND DETECTION (15 min) Surveillance (20 min) Case definitions (20 min)
10.00 - 10.30	Break
10.30 - 12.30	ROUTINE DATA COLLECTION AND REPORTING OF DIARRHOEA Exercise A : Forms (group work, 30 min)
	TABLES AND GRAPHSExercise B : Tables (individual exercise, 30 min)Exercise C : Graphs (individual exercise, 30 min)
12.30 - 13.30	Lunch
13.30 - 15.00	DETECTION OF OUTBREAKS Exercise D : Outbreaks (short answer exercise, 15 min) Exercise E : Notification (group work, 60 min)
15.00 - 15.30	Break
15.30 - 17.00	LABORATORY Exercise F : Handling stool specimens (group work, 20 min) Exercise G : Handling stool specimens (individual exercise, 10 min)
	SUPPLIES Exercise H : Supplies (individual exercise, 30 min) Exercise I : Non-treatment supplies (individual exercise, 40 min)

08.30 - 10.00 TRAINING HEALTH WORKERS

HEALTH EDUCATION

EPIDEMIC CONTROL COMMITTEE

EPIDEMIC PREPAREDNESS PLAN

Exercise J : Epidemic preparedness plan (individual exercise, 60 min)

Exercise K : Members of the Epidemic Control Committee (individual exercise, 30 min)

10.00 - 10.30 Break

10.30 - 12.30 CHAPTER 1 : RECAPITULATION AND SUMMARY (30 min)

CHAPTER 2 : RESPONSE (15 min)

CASE MANAGEMENT

Exercise L	:	Case histories (individual exercise, 45 min)
Exercise M	:	Outbreak (short answer exercise, 20 min)
Exercise N	:	Maps (individual exercise, 30 min)
Exercise O	:	Rumours (group work, 15 min)
Exercise P	:	Risks (individual exercise, 35 min)

- 12.30 13.30 Lunch
- 13.30 15.00 PERSONS AND COMMUNITIES AT RISK

MOBILE CONTROL TEAMS

- 15.00 15.30 Break
- 15.30 17.00TEMPORARY TREATMENT CENTRES
Exercise Q : Task list (individual and group work, 40 min)
Exercise R : Cholera outbreak (individual exercise, 25 min)
 - IMPROVING CURRENT HEALTH FACILITY STANDARDS Exercise S : Improving facility standards (exercise, 15 min)

CHAPTER 2 RECAPITULATION AND SUMMARY (15 min.)

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Day 3

08.30 - 10.00	HEALTH EDUCATION MESSAGES Exercise T : Health education (group work, 60 min)
	ENSURING A SAFE SUPPLY OF WATER Exercise U : Water storage (group work, 30 min)
10.00 - 10.30	Break
10.30 - 12.30	FOOD SAFETY
	HAND WASHING Exercise V : Hand washing (group work, 15 min)
	ENVIRONMENTAL SANITATION
	INEFFECTIVE CONTROL MEASURES Exercise W : Health education drills (group work, 30 min) Exercise X : Control measures (short answer exercise, 15 min)
	CHAPTER 3 : RECAPITULATION AND SUMMARY (15 min) Exercise Y : Case study (individual exercise, 45 min)
12.30 - 13.30	Lunch
13.30 - 15.00	Exercise Y : Case study, continued (individual exercise, 60 min) General discussion (30 min)
15.00 - 15.30	Break
15.30 - 17.00	Overall summary

Further material can be discussed on following days.