

Management of Tuberculosis Training for Health Facility Staff

SECOND EDITION

L. Facilitator Guide



World Health
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TUBERCULOSIS FOUNDATION

**Management of Tuberculosis
Training for Health Facility Staff
Second Edition**



FACILITATOR GUIDE



**World Health
Organization**



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Facilitator Guide

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Facilitator Guide

Introduction to this *Facilitator Guide*

For whom is this course intended?

This course is designed for health workers who detect and manage patients with TB. These health workers may include health assistants, medical assistants, nurses, clinical assistants, clinicians or physicians. Some may be private practitioners. Health workers may be male or female.

The course is intended mainly for staff with access to TB sputum smear microscopy but limited or no availability of other diagnostic resources such as X-rays, pathology, culture and drug susceptibility testing for *Mycobacterium tuberculosis*. These diagnostic resources may be accessible by referral to a second-level facility.

Health workers may work at health centres, hospital outpatient departments, dispensaries or health posts (all of which are called “health facilities” in this course).

What methods of instruction are used in this course?

This course uses a variety of methods of instruction, including reading, written exercises, discussions, role plays, demonstrations and observation in a real health facility. Practice, whether in written exercises, role plays or in the health facility, is considered a critical element of instruction.

How is the course conducted?

Small groups of participants are led and assisted by “facilitators” as they work through the course modules (booklets that contain units of instruction). Participants read the module text themselves and work through the exercises as they come to them.

The facilitators are not lecturers, as in a traditional classroom. Their role is to answer questions, provide individual feedback on exercises, lead discussions, structure role plays, etc.

The modules provide the basic information to be learnt. Information is also provided in demonstrations and discussions.

The modules are designed to help each participant develop specific skills necessary for detecting and treating TB. Participants develop these skills as they read the modules and practise skills in written exercises, group discussions or role plays.

To a great extent, participants work at their own pace through the modules. In some activities, such as role plays and discussions, the small group will work together.

Each participant discusses any problems or questions with a facilitator and receives prompt feedback on completed exercises. (Feedback includes reviewing and discussing the exercise with the participant.)

What is a facilitator?

A facilitator is a person who helps the participants learn the skills presented in the course. The facilitator spends much time in discussions with participants, either individually or in small groups. For facilitators to give enough attention to each participant, a ratio of one facilitator to five or six participants is desired. In your assignment to teach this course, you are a facilitator.

As a facilitator, you need to be very familiar with the material being taught. It is your job to give explanations, do demonstrations, answer questions, talk with participants about their answers to exercises, conduct role plays, lead group discussions and generally give participants any help they need to successfully complete the course. You are not expected to teach the content of the course through formal lectures. (Nor is this a good idea, even if this is the teaching method to which you are most accustomed.)

What, then, does a facilitator do?

As a facilitator, you do three basic things:

1. You instruct:

- Make sure that each participant understands how to work through the materials and what is expected in each module and each exercise.
- Answer the participant's questions as they occur.
- Explain any information that the participant finds confusing, and help the participant understand the main purpose of each exercise.
- Lead group activities, such as group discussions and role plays, and the visit to a health facility, to ensure that learning objectives are met.
- Promptly review each participant's work and give correct answers.
- Discuss how the participant obtained the answers in order to identify any weaknesses in the participant's skills or understanding.
- Provide additional explanations or practice to improve skills and understanding.
- Help participants to understand how to use skills taught in the course in their own health facilities.

2. You motivate:

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

3. You manage:

- Plan ahead and obtain all supplies needed each day, so that they are in the classroom when needed.
- Monitor the progress of each participant.

How do you do these things?

Show enthusiasm for the topics covered in the course and for the work that the participants are doing.

Be attentive to each participant's questions and needs. Encourage the participants to come to you at any time with questions or comments. Be available during scheduled times.

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. These are clues that the participant may need help.

Promote a friendly, cooperative relationship. Respond positively to questions (by saying, for example, "Yes, I see what you mean," or "That is a good question"). Listen to the questions and try to address the participant's concerns, rather than rapidly giving the "correct" answer.

Always take enough time with each participant to answer questions completely (that is, so that both you and the participant are satisfied).

What not to do.....

During times scheduled for course activities, do not work on other projects or discuss matters not related to the course.

In discussions with participants, avoid using facial expressions or making comments that could cause participants to feel uncomfortable or embarrassed.

Do not lecture about the information that participants are about to read. Give only the introductory explanations that are suggested in the *Facilitator Guide*. If you give too much information too early, it may confuse participants. Let them read it for themselves in the modules.

Do not review text paragraph by paragraph. (This is boring and suggests that participants cannot read for themselves.) As necessary, review the highlights of the text during individual feedback or group discussions.

Do not be condescending. In other words, do not treat participants as if they are children. They are adults.

Do not talk too much. Encourage the participants to talk.

Do not be shy, nervous or worried about what to say. This *Facilitator Guide* will help you remember what to say. Just use it!

How can this Facilitator Guide help you?

This *Facilitator Guide* will help you teach the course modules. For each module, this *Facilitator Guide* includes the following:

a list of the procedures to complete the module, highlighting the type of feedback to be given after each exercise

guidelines describing:

- how to do demonstrations, role plays, and group discussions
- points to make in group discussions or individual feedback
- how to lead a visit to a health facility and structure the field exercise there

copies of answer sheets for exercises.

Answer sheets are also provided in a separate packet for each participant. Individual answer sheets should be detached and given to each participant after exercises, during individual feedback or after a group discussion.

At the back of this *Facilitator Guide* is a section titled “Guidelines for all modules.” This section describes training techniques to use when working with participants during the course. It provides suggestions on how to work with a co-facilitator. It also includes important techniques to use when:

- participants are working individually,
- you are providing individual feedback,
- you are leading a group discussion,
- you are coordinating a role play.

To prepare yourself for each module, you should:

read the module and work the exercises,

check your answers by referring to the answer sheets (provided as a separate packet),

read in this *Facilitator Guide* all the information provided about the module,

plan with your co-facilitator how work on the module will be done and what major points to make,

collect any necessary supplies for exercises in the module,

think about sections that participants might find difficult and questions they may ask,

plan ways to help with difficult sections and answer possible questions,

ask participants questions that will encourage them to think about using the skills in their own health facilities.

Checklist of instructional materials needed in each small group

Item needed	Number needed
<i>Facilitator Guide</i>	1 for each facilitator
Set of 10 modules (A–J), plus a reference booklet (K)	1 set for each facilitator and 1 set for each participant
Answer sheets in packet	1 packet for each participant
Set of overheads of forms and worksheets (if overhead projector is available) Alternative: Enlarged photocopies of forms and worksheets	1 set per group
Copy of course schedule	1 for each facilitator and participant

Checklist of supplies needed for work on modules

Supplies needed for each person include:

- name tag and holder
- 2 pens
- 2 pencils with erasers
- paper
- highlighter
- folder or large envelope to collect answer sheets
- calculator (optional but helpful).

Supplies needed for each group include:

- large paper clips (helpful to mark place in the module while doing an exercise)
- pencil sharpener
- stapler and staples
- 1 roll of masking tape
- extra pencils and erasers
- flipchart pad and markers or blackboard and chalk
- overhead projector (if possible) and erasable markers for writing on overhead transparencies.

Certain exercises require special supplies such as sputum containers, anti-TB drugs and drug boxes. These supplies are listed in the guidelines for each module. Be sure to collect the needed supplies from your course director before these exercises.

Facilitator Guidelines for

A: Introduction

Procedures	Feedback
1. Introduce yourself and ask participants to introduce themselves.	-----
2. Do any necessary administrative tasks.	-----
3. Distribute and introduce module A: <i>Introduction</i> . Participants read the module (pages 1–7) up to the glossary.	-----
4. Answer any questions about A: <i>Introduction</i> .	-----
5. Explain your role as facilitator.	-----
6. Participants tell where they work and describe briefly their responsibility for identifying and treating TB patients.	-----
7. Continue immediately to module B: <i>Detect Cases of TB</i> .	-----

Notes for each of these numbered procedures are given on the following pages.

1. Introduction of yourself and participants

Introduce yourself as a facilitator of this course and write your name on the blackboard or flipchart. As the participants introduce themselves, ask them to write their names on the blackboard or flipchart. (If possible, also have them write their names on large name cards at their places.) Leave the list of names where everyone can see it. This will help you and the participants learn each other's names.

2. Administrative tasks

There may be some administrative tasks or announcements that you should address. For example, you may need to explain the arrangements that have been made for lunches, transportation of participants, or payment of per diem.

Distribute the course schedule and point out when your group will be making a field visit to a health facility.

3. Introduction of module and manual

Explain that module A: *Introduction* briefly describes the importance of TB as a health problem. It also describes the course methods and learning objectives.

Explain that this module, like all the modules that the participants will be given, is theirs to keep. As they read, they can highlight important points or write notes on the pages if they wish.

Point out the glossary at the end of the module. Participants should look in the glossary when they encounter an unfamiliar term.

Ask the participants to read pages 1–7 in module A: *Introduction* now. They do not need to read the glossary now.

4. Answering questions

When everyone has finished reading, ask if there are any questions about the module or the purpose of the course. Answer any questions.

5. Explanation of your role as facilitator

Explain to participants that, as facilitator (and along with your co-facilitator, if you have one), your role throughout this course will be to:

- guide them through the course activities
- answer questions as they arise or find the answer if you do not know
- clarify information they find confusing
- give individual feedback on exercises where indicated
- lead group discussions and role plays
- lead the group's visit to a health facility (*if field exercise will be done*).

6. Participants' responsibility for detecting and treating TB

Explain to participants that you would like to learn more about their responsibilities related to TB. This will help you understand their situations and be a better facilitator for them. For now, you will ask participants to tell where they work and what their job is. During the course, you will further discuss what they do in their health facilities.

Begin with the first participant listed on the flipchart and ask the two questions below. Note the answers on the flipchart.

What is the name of the health facility where you work, and where is it?
What is your position or responsibility for TB patients?

Note: Have the participant remain seated. You should ask the questions and have the participant answer you, as in a conversation. It is very important at this point that the participant feels relaxed and not intimidated or put on the spot. (Though it may be interesting to ask more questions, do not do that now. This should not be a long discussion.)

7. Continuing to the next module

Proceed directly to module B: *Detect Cases of TB*.

Facilitator Guidelines for

B: Detect Cases of TB

Procedures	Feedback
1. Distribute module B: <i>Detect Cases of TB</i> . Introduce the module. Show and explain the icons and instructions that will guide participants through all the modules.	-----
2. Participants read pages 1–17. When they reach the stop sign on page 17, they turn to page 36 and read the instructions for Exercise A.	-----
3. Lead the role play for Exercise A (page 36).	Role play
4. Participants go back to page 18 and read until the stop sign on page 26. Participants do Exercise B on page 40 as individual work.	Individual feedback
5. Participants go back to page 26. They read section 9 and the summary of important points (page 29). Explain what is at the end of each module: summary of important points and self-assessment questions. Explain the purpose of the self-assessment questions and how to do them.	-----
6. Participants do the self-assessment questions and check their own answers.	Self-checked
7. Conclude the module.	-----

1. Introducing the module

Explain that this module describes how to detect cases of TB from among all patients who come to the health facility. Then, a diagnostic sputum smear examination will tell whether the TB suspect is positive for pulmonary TB.

Review the list of objectives on page 2.

Show and explain the icons and instructions that will guide participants through all the modules. They will read in the module, turn to the back of the module to do an exercise (all exercises are in the back of the module) and then go back and continue reading in the module.

When participants reach a **stop sign**, stop and follow those instructions. Those instructions are usually to turn to a specified page and do the exercise (show page 17 as an example.)

Some exercises are group discussion and some are individual work. Explain:

When an exercise is individual work, this means that you should work through the exercise by yourself and write the answers in your own module. However, if you have a question about what to do or about something that you read, you should ask a facilitator for help.

When you have finished the exercise, you will see an instruction in a box that says “Please discuss your answers with a facilitator” (as on page 46). This semi-private discussion is called individual feedback. In this discussion, you and the facilitator will review your work and compare it with the answer sheet. If you have made errors, the facilitator will help clarify any misunderstanding. The purpose is to help you learn.

Then explain what participants should do when they have finished an exercise and are ready for individual feedback. (Depending on the room arrangement, they might raise their hand for a facilitator to come to them, or may come to the facilitator.)

At the end of each exercise, there is a **go back** arrow with instructions to turn back (to a certain page) to begin reading again in the module where they left off (show example on page 46). Follow those instructions and then continue reading until the next stop sign.

Ask participants to begin reading in the module, beginning at page 1 and reading until they reach the first stop sign (on page 17). They should follow the instructions given in the box at the stop sign.

2. When participants are reading

Participants will read pages 1–17, which may be difficult for some who are not accustomed to extended reading. Watch to see if any participants are struggling. If a participant is visibly struggling, go to that individual and ask (quietly) if the

participant has a question or needs help. You may need to explain a form. It may help to reassure the participant that the forms, with instructions, are contained in the *Reference Booklet* and can be referred to at any time. Find out the problem and try to address it. Leaving a participant to struggle is likely to result in frustration and loss of motivation.

3. Exercise A: Role play – Collecting sputum for smear examination

Supplies for the role play

You will divide the participants into small groups of three for the role play. Provide at least two (preferably six) sputum containers for each group of three people. (The “health worker” will label two containers in each role play. If the labels can be erased, the same two containers can be reused in the three role plays. If not, six are needed for each group of three persons.)

Conducting the role play

Divide the participants into groups of three. The groups of three will do their role plays simultaneously, in separate parts of the room.

Introduce the role play by explaining that each participant will have a turn to practise collecting a sputum specimen for smear examination from a “TB suspect,” following the procedures described in the module. The third person will be the observer and will refer to the page “Collect sputum for examination” (page 12 in the module) and later comment on the role play. When the first role play is finished, the members will switch roles and repeat the role play.

Ask the participants to read the instructions for Exercise A on page 36–37 if they have not already done so.

Ask the groups of three to space themselves a bit, to help reduce distraction from the other groups. They may be in opposite corners of the room, or one group can go into the hall. However, they should not go far, because the facilitators need to observe them.

Ask the participants if they have any questions about what to do, and clarify instructions as needed. It is important, especially for this first role play, that participants understand what they are supposed to do. The “health worker” should refer to the “Instructions for health worker” anytime, to keep on track.

Ask the groups to begin, and watch as they get started. Help them as necessary. Watch each group (you will have to move around) to be sure that they are staying on track. Give instruction and feedback as necessary.

After each role play, when the observer is pointing out any steps omitted, check that the comments are brief and related to steps on “Collect sputum for examination.” Then encourage the group to quickly switch roles and do the role play again. It is important to keep the role plays moving so that participants do not become bored or frustrated.

Discussion

After all groups have finished their third role play, gather everyone together for a discussion to reinforce the important points about collecting sputum. Ask participants to close their modules and *Reference Booklets* and tell you from memory the important steps to collect sputum. Let each participant list one step as you write it down on a flipchart or chalkboard. You should be able to **quickly** construct a reasonable list with the input of the group.

Then ask the group to comment on how they will identify TB suspects and collect sputum at their own health facilities:

Who is (or could be) responsible for asking every adult about cough?

Do their facilities follow this schedule for collecting two sputums? (If their procedures are different and not adequate now, encourage them to change their procedures.)

Under what circumstances will they send a TB suspect to another health facility or directly to the laboratory for sputum collection?

What problems do they encounter in trying to collect sputum samples? How can these difficulties be overcome?

When the discussion is finished, ask participants to go back to page 18 and read until the next stop sign (page 26). At that point, they should turn to page 40 and do Exercise B as individual work. When they complete Exercise B, let a facilitator know they are ready for individual feedback.

4. Exercise B: Written exercise with individual feedback – Recording in the Register of TB Suspects

Watch as participants begin working on this first individual exercise. Be sure that they are not confused about what to do, stuck with no pencil, etc. Some participants need a bit of encouragement to begin writing in the module book. Be sure they fold out page 47 to write on as they read the exercise.

When you see a participant has finished the exercise, go to him or her, or ask the participant to come to you. If individual feedback is a new method to the participants, most are likely to wait to see whether and how individual feedback happens. Some may decide they would rather not get individual feedback and will not come for feedback unless you prompt them. Be sure that every participant gets feedback on this exercise.

Make sure that this first experience with getting individual feedback is a positive one. Look at each participant's work carefully. Ask if the participant has questions and listen attentively to the questions. Answer carefully. Participants will assess whether you are really interested in giving them help and whether feedback is likely to be embarrassing or punitive. It is essential that you build each participant's confidence so that interactions with a facilitator will be helpful or interesting, not punishing. When

interactions are positive and participants feel that the facilitators are interested in their work, they are more motivated to do the work well.

When a participant comes to you for feedback, sit down with the participant and look at the *Register of TB Suspects* completed in the exercise. Compare it with the answer sheet. If the participant has made errors, do not simply correct them. Instead, first ask the participant to explain his or her answers. If the participant has questions, answer them. Try to find out the reason for any misunderstandings and clarify. The purpose of the interaction is to give feedback on what the participant did correctly and to correct any misunderstandings. At the end of the interaction, you should feel that the participant would be able to do the exercise correctly.

Give the participant a copy of the answer sheets for this exercise to keep. Thank or congratulate the participant for his work.

Then ask the participant to go back to page 26, read section 9 and work until the end of the module (page 33). This will include writing answers to the self-assessment questions and checking the answers.

5. Explanation of self-assessment questions

When participants are almost finished with the reading (page 28), get the group's attention and explain the purpose of the self-assessment questions and how to do them. (The self-assessment questions for this module and their answers are on pages 30–33. Each subsequent module has a section of self-assessment questions also.)

The self-assessment questions address the important tasks taught in the module. Self-assessment questions are a review to help each of you assess for yourself what you have learnt and what you have missed or forgotten. They are not a test in the usual sense, because you do not turn them in to be graded or receive a grade. Instead, you check your own answers against the answers given in the module. After each answer, you will find (in parentheses) the section of the module where that information or step was taught.

If you answer all the self-assessment questions correctly, you can feel satisfied and proud that you have learnt the important points that the module taught. If you miss a question, this tells you what you need to study again. Look back to the specified section of the module and reread it.

When you answer the self-assessment questions, work carefully. Do not look ahead at the answers because this will reduce the effectiveness of the review. Also, if you look ahead at the answers, you will not know what you have learnt and what you need to study further.

Answers to Exercise B

For answers to Questions 1, 2 and 3, see the completed *Register of TB Suspects* on the next page.

4. The next appropriate action that you should take for each TB suspect, based on laboratory results, is:

Anna Abouya: Inform her that she does not have pulmonary TB and that no treatment is needed.

Nyore Lori: He has one sputum smear-positive result and therefore has infectious pulmonary TB. He needs treatment for TB.

Kumante Waweru: Follow up with the laboratory to find out what happened to this suspect's results.

Pooran Singh: The sputum smear did not show pulmonary TB. However, he has other signs and symptoms compatible with TB (fever, night sweats, weight loss) that make him a TB suspect. Refer him to a clinician for assessment.

In addition, strongly recommend HIV testing to him, and explain that the results will be important in determining how to best treat him.

Esna Josephus: Quickly inform the patient that she has smear-positive pulmonary TB and needs to begin treatment right away.

* (Pos) Positive; (Neg) Negative; (I) Discordant/Inconclusive; (ND) Not Done /unknown. Documented evidence of HIV test performed during or before TB treatment is reported here.

6. **Self-assessment questions (self-checked)**

7. **Concluding the module**

Ask the group about how they did on the self-assessment questions. If there are any questions about the answers, or other questions about the module, discuss them.

Reinforce that this module has described two approaches to identifying TB suspects:

- 1) **Health workers assess sick patients who come to the facility to determine whether they are TB suspects** based on whether they:
 - came because of cough
 - have other signs and symptoms compatible with TB (no cough)
 - are at high risk of TB.

If they have any of these, they are TB suspects.

- 2) **Health workers ask all adults who come to the health facility if they have coughed for 2 weeks or more**; if yes, the person is a TB suspect. This is a very important way to identify more people with TB before they infect others in the household and community and before they become very ill. This information is best collected independently at entry into the facility.

Health workers then collect sputum from each TB suspect. The sputum examination results show whether the TB suspect has smear-positive pulmonary TB.

If a TB suspect cannot cough up sputum, or if the sputum results come back negative but the patient still has TB symptoms, the health worker should refer the patient to a clinician. Clinicians can diagnose TB based on clinical signs, sputum examination and sometimes X-ray, or through other tests.

Make any additional important points from this module that you want to reinforce with these participants.

Thank the participants for participating in the role play and individual feedback, two methods which may not be very familiar to them. Congratulate them on completing this module.

Facilitator Guidelines for

C: Treat TB Patients

Procedures	Feedback
1. Distribute module C: <i>Treat TB Patients</i> . Introduce the module.	-----
2. Participants read pages 1–10 of the module. When everyone is ready, they turn to Exercise A on page 71. Lead the group through Case 1 as a demonstration.	-----
3. Participants do Cases 2–4 as individual work.	Individual feedback
4. Participants read pages 11–29. When participants are ready, they turn to Exercise B on page 77. Lead the group through Case 1. Participants then do Cases 2–4 as individual work.	Individual feedback
5. Participants read pages 29–37 and then do Exercise C, pages 87–92, as individual work. Then the facilitator leads a discussion of the questions on page 89.	Individual feedback Group discussion
6. Participants read pages 38–50 and then do Exercise D (page 93) as individual work.	Individual feedback
7. Participants read pages 51–55 and then do Exercise E (on page 97) as individual work.	Individual feedback
8. Participants go back to page 56, read and work through the end of the module (page 68), including doing the self-assessment questions. They check their answers against those provided.	Self-checked
9. Conclude the module.	-----

1. Introducing the module

Explain that this module describes how to treat TB patients, as shown in the list of objectives. Review the list of objectives on page 2. Explain that some tasks involved in treating TB patients are mentioned in this module but are more fully taught in another module (such as Module D: *Inform Patients About TB*).

Ask participants to read in the module until they reach the first stop sign (page 10). They should follow the instructions given in the box at the stop sign.

2. Group demonstration: Case 1 of Exercise A

Lead the group through Case 1 (page 72) to ensure that participants understand how to select a treatment regimen. Discuss questions a), b), c) and d) at the bottom of the page. Ask participants (or explain as needed) where to look to find the necessary information on the *Request for Sputum Examination* form or elsewhere. Refer to Figure 3 (Selecting a treatment regimen) on page 8 of the module and show participants where it also appears in the *Reference Booklet* (page 12). Explain how to read the table if necessary. Encourage participants to use the *Reference Booklet* anytime as they do exercises in this course and later, on the job.

Then ask participants to do Cases 2–4 on their own.

3. Exercise A: Written exercise followed by individual feedback – Selecting a treatment category

Discuss Cases 2–4 and compare the participant's answers with those provided in the answer sheet. If the participant has made errors, do not simply correct them, but try to find the reason for the misunderstanding and clarify.

Give the participant a copy of the answer sheet.

Ask the participant to go back to page 11, read to the next stop sign (page 29) and then follow the instructions in the box.

Answers to Exercise A

Case 1: Adesa Abkar

- a) Pulmonary
- b) New
- c) Low
- d) New patient regimen

Case 2: Marcus Marin

- a) Pulmonary
- b) Relapse
- c) Medium
- d) Retreatment regimen

Case 3: Raj Makena

- a) Pulmonary
- b) New
- c) Low
- d) Refer to a clinician for prescription of treatment, because Raj is HIV-positive and already on ART.

Case 4: Janu Nair

- a) Pulmonary
- b) Treatment after default
- c) High (Because he had to purchase the drugs, the treatment is presumed to have been of poor quality.)
- d) Refer to clinician for prescription of treatment because he is Treatment after default with high likelihood of MDR-TB. Treatment should be decided by a clinician.

4. **Exercise B: Group demonstration followed by individual work and individual feedback – Preparing a *TB Treatment Card***

Group demonstration

Preparation: Prepare to show an overhead transparency of the *TB Treatment Card*. If this is not possible, put up an enlarged copy to write on. This is a very important demonstration; participants often take a long time to understand how to complete the card on their own. **The demonstration saves time and minimizes frustrations in the long run, so do not leave it out.**

Lead the group through Case 1 in a demonstration or discussion. Refer to the answer sheet for Case 1 if needed as a guide. Write on the *TB Treatment Card* transparency (or enlarged copy) as you go. Ask participants (or explain as needed) where to look to find the necessary information and what to write on the card.

Begin by explaining that you will complete the card together, first using the information that is given on the patient, Adesa Abkar. Ask participants to find the information given about Adesa in Exercise A (page 72). Ask a participant to tell you the general information on the patient and the results of sputum smear microscopy. Demonstrate where to write this information on the card. Ask participants what treatment regimen is needed. When all the relevant information from Exercise A has been recorded on the *TB Treatment Card*, move to the additional information about the patient given in Exercise B (page 77–78).

To complete a *TB Treatment Card*, it is necessary to look up the drugs and dosages for each patient, for the initial and continuation phases. Tell and show participants the table of treatment regimens that they should use. If possible, they should use the same treatment regimens that they would use in their own health facilities. If this information is not available, they may use the regimens detailed in Figure 5 (page 21) of the module or in the *Reference Booklet*. Explain that the two regimens shown in the table for the continuation phase are alternatives (3 times per week or daily), and indicate which of the two they should use. (Note that the answers in the answer sheets were prepared using the drug dose for 3 times per week administration. If participants will use other regimens, you will need to adjust the answers accordingly.)

Keep the participants involved throughout the discussion, so that you are sure that they understand how to prepare a *TB Treatment Card* and know what to do for the exercise.

Point out to participants the pages in the *Reference Booklet* with notes on how to fill in a *TB Treatment Card* (pages 17–21).

Individual work on written exercise

Then ask participants to do Cases 2–4 as individual work. This may require an hour or more if participants are not familiar with the *TB Treatment Card*. Participants may use the blank *TB Treatment Cards* in the module or you may provide those used by your national TB control programme.

Individual feedback

When you check each participant's *TB Treatment Cards*, be sure that all appropriate blanks are filled in (name, address, health unit, sex, age, disease site, type of patient, results of sputum examination, weight, treatment regimen, number of tablets per dose, HIV test results, other HIV care information, X-ray, contact person, household contacts). If any spaces were left blank, see whether the participant missed them on all three *TB Treatment Cards*. If so, point out the omission. Ask the participant to fill all the cards completely and then return.

Discuss each case with the participant and compare the participant's *TB Treatment Cards* to the answer sheets. If the participant has made errors, do not simply correct them. Find the reason for the misunderstanding and clarify.

Give the participant a copy of the answer sheets. Ask the participant to go back to page 29 and read to the next stop sign (page 37).

Answers to Exercise B, Case 1

[illegible][illegible]

Answers to Exercise B, Case 2

[illegible][illegible]

Answers to Exercise B, Case 3

[illegible]

II. CONTINUATION PHASE																																		
Number of tablets per dose, doses per week																																		
<div style="border: 1px solid black; padding: 2px; display: inline-block;">(RH) 3</div>										<div style="border: 1px solid black; padding: 2px; display: inline-block;">(RHE)</div>										<div style="border: 1px solid black; padding: 2px; display: inline-block;">Other</div>														
Daily intake observed: enter ✓. Periodic supply: enter X on day when drugs are collected and draw a horizontal line (———) through number of days supplied. Ø = drugs not taken																																		
Day																																Number doses this month	Total number doses given	
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
					</																													

Answers to Exercise B, Case 4

[illegible][illegible]

5. Exercise C: Written exercise with individual feedback, followed by group discussion – Giving directly-observed treatment

Individual work on written exercise

1. Be sure the participants notice that the several weeks of treatment (described in 1 on page 87) are already marked for them on the treatment card on page 91. They can see how treatment taken, Sunday, and a missed day are marked.
2. Participants can read the list of dates of treatment (on page 88) and mark the card by themselves. An alternative method that may be easier and quicker for some participants is for the facilitator to read aloud the dates of treatment. The participants listen and mark their own card, day by day.

Individual feedback

Compare the participant's work with the answer sheet (on the next page). If the participant has made errors, try to determine why and correct any misunderstandings. Give the participant a copy of the answer sheet. Ask the participant to prepare for the group discussion (questions on page 89).

Discussion

Give participants time to think about and write answers to the questions before the discussion begins.

- a) 48 doses in continuation phase minus 23 doses given so far = 25 more doses needed.
- b) Ask different participants to suggest some possibilities for what happened to the tablets. The point should be that there are many possibilities and a health worker cannot know exactly what happened. Some possibilities include:
 - Mary could take them all correctly.
 - Mary could drop or damage one, and take an insufficient dose.
 - Mary could discard one that she does not like (if they are not all the same), and take the others.
 - Mary could give them all away or sell them or throw them away.
 - They could get wet and ruined.
 - She could forget to take them.
 - She could take them another day and then get a double dose on that day.
- c) The health worker should have given Mary a glass of water along with the tablets and watched her swallow them. Alternatively, the health worker could have asked Mary to find something to drink and come back with it. When Mary returned with the drink, the health worker would give her the tablets and watch her swallow them.
- d) Discuss the consequences if anti-TB drugs are not taken regularly. They include:
 - The patient may not be cured. The disease will be prolonged and will be more difficult to treat in the future.
 - The patient may develop resistance to some of the drugs.

Answers to Exercise C

Tuberculosis Treatment Card

District TB Register No. 1261

Name: Raj Makena

Sex: ☒ M ☐ F Date of registration in District TB Register: 8 Oct 2009

Age: 28 Health facility: Cochar Health Centre

Address: 11 Market Place, Arvua

Name / address of treatment supporter (if applicable)

I. INITIAL PHASE - prescribed regimen and dosages

Regimen: ☒ New ☐ Retreatment

Number of tablets per dose, doses per week, dosage of S:

(RHZE)	S
<u>3</u>	

Cotrimoxazole 2 ARV d4T-3TC d4T-3TC, EFV Other

Referral by:

☐ Self-referral
☐ Community member
☒ Public facility
☐ Private facility/provider
☐ Other, specify:

Sputum smear microscopy

Month	Date	Lab No.	Result	Weight (kg)
0	<u>30-8-09</u>	<u>560</u>	<u>+</u>	<u>53</u>
2	<u>5-11-09</u>	<u>622</u>	<u>neg</u>	<u>51</u>

Type of patient (check one)

☒ New ☐ Treatment after default
☐ Relapse ☐ Treatment after failure
☐ Transfer in ☐ Other

TB/HIV

	Date	Result*
HIV test	<u>19/9/07</u>	<u>pos</u>
HIV test		
CPT start	<u>28/3/08</u>	
ART start	<u>28/3/08</u>	

* (Pos) Positive; (Neg) Negative; (I) Discordant/Inconclusive; (ND) Not Done/Unknown

Tick appropriate box after the drugs have been administered

Daily intake observed: enter ✓. Periodic supply: enter X on day when drugs are collected and draw a horizontal line (—•) through number of days supplied. Ø = drugs not taken

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number doses this month	Total number doses given	Drugs given to supporter	
Month																																			
Sept			✓	✓	✓	✓	✓	✓	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	Ø	Ø	Ø	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	21	21	
Oct	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	27	48	
Nov	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	8	56	

II. CONTINUATION PHASE

Number of tablets per dose, doses per week

(RH)	(RHE)	Other
<u>3</u>		

Daily intake observed: enter ✓. Periodic supply: enter X on day when drugs are collected and draw a horizontal line (—•) through number of days supplied. Ø = drugs not taken

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number doses this month	Total number doses given	
Month																																		
Nov										✓	—	✓	Ø	✓	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	10
Dec	—	✓	Ø	Ø	—	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11	21
Jan																																		

Chest X-ray (at start)

Date:

(-) Normal
 (+) Abnormal
 ND Not done

HIV care

Pre ART Register No.
 CD4 result
 ART eligibility (Y/N/Unknown)
 Date eligibility assessed
 ART Register No. 322

Comments: 1/9/09 Referred to Maduk District Hosp for TB Treatment plan (HIV pos). 3/9-Dr Thun prescribes New regimen. 21 Sept - Home visit; has been sick

Household contacts

First names and surnames	Age	Relationship to case	Date seen	Result
<u>Salma Makena</u>	<u>29</u>	<u>wife</u>	<u>0-9-09</u>	<u>neg</u>
<u>Malig Makena</u>	<u>31</u>	<u>brother</u>		
<u>Qader Makena</u>	<u>9</u>	<u>nephew</u>		

Treatment outcome

Date of decision

☐ Cure
☐ Treatment completed
☐ Died
☐ Treatment failure
☐ Default
☐ Transfer out

Name and address of contact person: Sajiv Gonder, Circle Rd behind Government House, Arvua

6. Exercise D: Written exercise with individual feedback – Follow-up sputum smear examination

When the participants are ready (or almost ready) to do Exercise D, ask for the group's attention. Review Figure 12 (Schedule for follow-up sputum examinations) on page 49 to be sure that participants understand how to read it. They should refer to this page in the module or the *Reference Booklet* as needed when they do the exercise.

Part I: To give individual feedback, discuss each case and compare the participant's answer with the answer sheet. If there is an error, ask how the participant got that answer, so that you can understand whether the participant does not understand how to read the schedule, or has a different problem. Look at the schedule together and help the participant figure out the correct answer.

Part II: Discuss each case comparing the participant's answers with the answer sheet. If there is an error, ask how the participant determined that answer. Refer to page 42 of the module and the schedule for follow-up sputum smear examinations (page 49) as needed to help the participant find the correct response.

Give the participant a copy of the answer sheet.

Ask the participant to go back to page 51 and read to the next stop sign (page 55).

Answers to Exercise D

PART I

Case 1: Adesa Abkar (New patient regimen)

She should have the next sputum smear examination in the last week of the third month of treatment.

Case 2: Marcus Marin (Retreatment regimen)

He is due for the next sputum smear examination in the last week of the eighth month of treatment (which is the end of his treatment).

Case 3: Raj Makena (New patient regimen)

He is due for the next sputum smear examination in the last week of the fifth month of treatment.

Case 4: Janu Nair (Retreatment regimen)

He is due for the next sputum smear examination in the last week of the fifth month of treatment, that is, approximately during the week of 1 April.

PART II

Case 1: Adesa Abkar (New patient regimen)

The health worker should consider this patient a treatment failure because the sputum smear examination after 5 months is positive. The appropriate action is to close the *TB Treatment Card*, record the outcome as “Treatment failure,” and collect sputum to send for culture and DST.

Prepare a new *TB Treatment Card*. On the new card, mark the “Type of patient” as “Treatment after failure.” Her likelihood of MDR-TB is high. Refer her to a clinician for an MDR-TB regimen.

Case 2: Marcus Marin (Retreatment regimen)

The health worker should have the patient continue treatment until all the tablets are gone. Because the sputum smear examination in the eighth month is negative, the treatment has worked well.

Case 3: Raj Makena (New patient regimen)

The health worker should have the patient complete continuation-phase treatment. Because the sputum smear examination at 5 months is negative, the treatment is working well.

He should get another sputum smear examination in the last week of the sixth month of treatment.

Case 4: Janu Nair (Retreatment regimen)

The appropriate action is to take continuation-phase treatment until it is completed. He should have another sputum smear examination in the last week of the eighth month of treatment.

7. Exercise E: Written exercise with individual feedback – Decide treatment outcomes

Compare the participant's answers with the answer sheet. If there are any errors, ask the participant about the reason for the choice of the outcome. Refer to the definitions of each outcome in the module (page 53) or in the *Reference Booklet*. Give the participant a copy of the answer sheet.

Ask the participant to go back to page 56 and read and work to the end of the module (page 68).

8. Self-assessment questions (self-checked)

9. Concluding the module

Ask the group how they did on the self-assessment questions. If there are any questions about the answers, or other questions about the module, discuss them.

Make any important points that you want to reinforce with these participants.

Congratulate the participants on completing this important module. It is the largest module and required considerable persistence and concentration.

Answers to Exercise E

Case 1: Adesa Abkar

Treatment outcome	
Date of decision:	<u>28-1-10</u>
Cure	<input type="checkbox"/>
Treatment completed	<input type="checkbox"/>
Died	<input type="checkbox"/>
Treatment failure	<input checked="" type="checkbox"/>
Default	<input type="checkbox"/>
Transfer out	<input type="checkbox"/>

Case 2: Marcus Marin

Treatment outcome	
Date of decision:	<u>9-5-10</u>
Cure	<input checked="" type="checkbox"/>
Treatment completed	<input type="checkbox"/>
Died	<input type="checkbox"/>
Treatment failure	<input type="checkbox"/>
Default	<input type="checkbox"/>
Transfer out	<input type="checkbox"/>

Case 3: Raj Makena

Treatment outcome	
Date of decision:	<u>5-3-10</u>
Cure	<input type="checkbox"/>
Treatment completed	<input checked="" type="checkbox"/>
Died	<input type="checkbox"/>
Treatment failure	<input type="checkbox"/>
Default	<input type="checkbox"/>
Transfer out	<input type="checkbox"/>

Raj's outcome is not "Cured" because he had no sputum smear examination in the last month of treatment.

Case 4: Janu Nair

Treatment outcome	
Date of decision:	<u>25-6-10</u>
Cure	<input type="checkbox"/>
Treatment completed	<input type="checkbox"/>
Died	<input type="checkbox"/>
Treatment failure	<input type="checkbox"/>
Default	<input checked="" type="checkbox"/>
Transfer out	<input type="checkbox"/>

Janu Nair seems to have defaulted. His last treatment was on 25 April. The health worker must wait 2 months to record this outcome, in case the patient comes back.

If, after 2 months (by 25 June), Mr Nair has not come back or been heard from, the outcome “Default” can be recorded. The date of decision would be 25 June.

Facilitator Guidelines for

D: Inform Patients about TB

Procedures	Feedback
1. Distribute module D: <i>Inform Patients about TB</i> . Introduce the module.	-----
2. Participants read pages 1–4 of the module and then do written Exercise A, pages 35–36.	Individual
3. Participants read pages 5–7 of the module and then do written Exercise B, page 37.	Individual
4. Participants read pages 8–14 of the module.	-----
5. Demonstration: With a participant (or your co-facilitator), demonstrate providing patient information in the context of an initial visit. Use the script in the annex of the module.	-----
6. Participants do the role play in Exercise C, pages 40–42.	Role play
7. Participants read pages 16–27. Optional: Participants do Exercise D (role play, pages 43–45) if it is relevant to the HIV situation in the area.	Role play
8. Participants do written Exercise E, page 46.	Individual
9. Participants read the summary of important points (page 29) and then do the self-assessment questions. Participants check their own answers against those provided in the module.	Self-checked
10. Conclude the module.	-----

1. Introducing the module

Explain that communication with patients is a critical part of treating TB. If the health worker communicates with the patient clearly, thoroughly and supportively, the patient will be more likely to continue treatment.

This module focuses on using good communication skills to inform patients about TB and its treatment. Patients' needs for information about TB vary because they come from different situations and have different knowledge of TB. The health worker must ask questions and listen carefully in order to give the specific information that each patient needs.

Since this module is about communicating, several of the exercises will be role plays. The role plays will provide practice in informing patients about TB using good communication skills.

Ask participants to read the module through page 4 and then do Exercise A individually. Tell participants to write brief answers.

2. Exercise A: Written exercise followed by individual feedback – Asking questions and listening

Discuss the story of Mr Akhim with the participant. Compare the participant's answers to those on the answer sheet. Keep in mind that these are possible answers; the participant may have listed different questions or may have phrased them differently. Differences are fine as long as the questions are relevant.

Most of the questions should be open-ended. If the participant has listed several "yes or no" questions, ask the participant how they could be rephrased to elicit more information.

Keep in mind that participants have not yet read the part of this module about specific information to provide about TB. They should be able to answer item 2, but their answers may be brief. The point is to show how Mr Akhim's current beliefs about TB affect what the health worker should say about TB. The health worker should ask questions in order to find out what information to stress with a particular patient.

Give the participant a copy of the answer sheet.

Ask the participant to go back to page 5 of the module, section 1.2, and continue reading until the next stop sign.

Possible Answers to Exercise A

1. Possible questions about Mr Akhim's current knowledge of TB include:

What do you understand tuberculosis, or TB, to be?

What do you think causes TB? How is it spread?

Have you ever known anyone who had TB? What happened to that person?

What have you heard about curing TB?

2. Examples of important points for Mr Akhim include:

TB is caused by a germ.

TB spreads when an infected person coughs or sneezes, spraying TB germs into the air. Others may breathe these germs and become infected. Anyone can get TB.

TB can be cured with the right drug treatment. There is usually no need to stay in the hospital. You can live normally at home.

Other important messages are listed on pages 12–14 of the module, which you will read soon. The preceding points are especially important for Mr Akhim, given his wrong beliefs about TB and how it is spread.

3. **Exercise B: Written exercise followed by individual feedback – Checking questions**

This brief exercise is simply an opportunity to make sure that participants understand what checking questions are.

Health workers should ask checking questions at the end of a meeting with patient, or after some important information is given. Ask these questions to **check** the patient's understanding of what has been said. The questions should relate to the information just given.

Compare the participant's answers with the answer sheet given. Remind the participants, as needed, to try to ask open-ended questions that begin with "who, what, when, where, how, or why" rather than questions that can be answered simply "yes" or "no."

Tell participants that there will be a role play of informing a TB patient later in the module. In that role play, the health worker should use checking questions to assess what the patient has understood and learnt.

Ask participants to read pages 8–15 of the module (to the next stop sign). At that point there will be a role play exercise.

Possible Answers to Exercise B

1. The participant should have listed two checking questions, such as:
 - *What age children should you bring in to be checked for TB?*
 - *What sign means that adults and older children should be brought to the health facility?*
 - *What is the reason that I am asking you to bring your family members to the health centre?*

2. The participant should have listed two checking questions such as:
 - *Why is it important to keep coming for treatment?*
 - *What might happen if you stop coming for treatment?*
 - *How much longer will you need to come for treatment? How often?*

5. Demonstration role play: Initial patient information about TB

Introduce the demonstration to the participants. Explain that the role plays in Exercise C will allow participants to practise informing patients about TB. Informing patients is only part of an initial visit. An initial visit also includes explaining that the patient has TB, opening the *TB Treatment Card*, recommending that the patient be tested for HIV, providing the first dose of anti-TB drugs, etc. (Note that recommending that the patient be tested for HIV is included in this demonstration. It will be taught to the participants in a later section of this module.)

As a model for the participants, you and a participant (or your co-facilitator) will enact an initial visit with a TB patient. Use the script given in the Annex of the module. It is best if you practise beforehand so that you can act out the roles clearly and with expression.

Please follow the script. It illustrates how to communicate effectively and inform the patient about TB within the context of a visit in which many tasks must be accomplished.

After the demonstration, ask participants whether they thought that all necessary information was covered for a first visit. Ask if they are able to provide this type of initial patient information at their own health facilities. If not, what prevents them? How could they improve their efforts?

Tell participants that the group will now do Exercise C, a role play in which the participants can practise informing a patient about TB and its treatment.

6. Exercise C: Role play – Initial patient information about TB

Divide participants into groups of three for the role play. If possible, have a drug box available for each small group to use as a prop; each drug box should contain daily doses of RHZE (4 tablets a day for the “patient” in this role play).

Review the instructions given in the module on pages 40–42 with the participants. In the role play, one participant will act as the health worker, one the patient and one the observer. By repeating the role play, each person will take a turn in each role. Instructions for each role are given in the module.

This role play will only cover the messages outlined in section 2 of the module and in the *Guide for initial patient information about TB* (also in the *Reference Booklet*). Encourage participants to refer to the guide and use it. They will cover all of the important points if they use the guide.

For each group of three, specify who will be the first observer, the first health worker and the first patient. Remind participants that they may make up information if needed, but it should be realistic and consistent with the role description.

During the role plays, observe as much as possible, but do not interrupt (except in cases of utter confusion). It is the observer's job to give feedback after the role play. After doing the role play, participants should change roles.

When everyone has had a turn as the health worker, bring the entire group together to conclude the exercise. Briefly discuss any common problems that you observed, any techniques that were used especially well, etc. Reinforce use of the *Guide for initial patient information about TB*. Answer any questions that participants may have.

Ask participants to read pages 16–27 of the module. Section 3 describes how to continue providing information about TB after the first visit. Section 4 presents messages related to HIV and TB.

Your course director should have informed you whether or not to do optional Exercise D, a role play of informing a patient about HIV and TB. If your group will do this exercise, ask participants to tell you when they have read page 27 and are ready for the role play. If your group will omit Exercise D, tell participants that they may begin Exercise E on their own when they have completed the reading.

7. Optional Exercise D: Role play – Informing patients about HIV and TB

This exercise may be used in areas where HIV is common.

Again divide participants into groups of three for the role play. No props are needed for this role play.

Review the instructions given in the module (pages 45–43) with the participants. In the role play, one participant will act as the health worker, one the patient and one the observer. By repeating the role play, each person will have a turn in each role.

This role play covers some of the messages outlined in section 4 of the module. The health worker should discuss the messages that are relevant for the particular patient. The *Guide for informing patients about HIV and TB* (on pages 25–26 of the module and also in the *Reference Booklet*) will help the health worker select the appropriate messages.

For each group of three, specify who will be the first observer, the first health worker and the first patient. Instructions for each role are given in the module. Remind participants that they may make up information if needed but that it should be realistic and consistent with the role description.

During each role play, observe as much as possible, but do not interrupt. After doing the role play, participants should change roles.

When everyone has had a turn as the health worker, bring the entire group together. Discuss any common problems that you observed, techniques that were used especially well, etc. Reinforce use of the *Guide for informing patients about HIV and TB*. Then discuss the questions on page 45.

Answer any questions that participants may have and conclude the exercise.

**8. Exercise E: Written exercise followed by individual feedback–
Problem solving**

This exercise allows participants to imagine what they would say or do in common situations that might interfere with TB treatment.

Participants' answers may differ from those on the answer sheet. Refer to the answer sheet to suggest ideas that participants do not mention.

Remind participants of the need to find out the causes of a problem before identifying a solution. Note that many of the answers on the answer sheet begin, "Find out why..." or "Ask why...." Sometimes the solution to a problem is simply to provide information to the patient or family, but other times the situation may be more complicated.

After the discussion give the participant a copy of the answer sheet. Point out that these are possible answers; other answers may be suitable as well.

Tell the participant to go back to page 29 and read and work to the end of the module.

Possible Answers to Exercise E

What would you say or do if....?	Possible answers:
A new patient wants to take the drugs unsupervised at home.	<p>Ask why the patient wants to take the drugs at home. If it is very inconvenient to come to the health facility, discuss possible community TB treatment supporters.</p> <p>Explain that it is a firm policy to insist on directly-observed treatment. It is the only way to obtain the drugs. It is important for a health worker to see the patient to make sure there no problems with side-effects, etc.</p>
The patient has missed 1 day of treatment.	Find out why the patient missed the dose. Attempt to solve any problems. Remind the patient of the need to take all of the doses for the prescribed time.
The patient does not want to have a sputum examination after 5 months of treatment.	Find out why. Explain the need for the examination. Explain that it is important to be sure that the medicines are working.
The patient says that her husband has a bad cough but does not have time to be tested for TB.	<p>Find out whether the patient has told her husband about her illness. Explain that it is important for him to be tested. He could have TB also; if so, he will spread TB to others and re-infect her.</p> <p>Offer to visit the husband and explain the need for testing.</p>
The patient is afraid to tell her family that she has TB.	<p>Find out why she is afraid. If she fears being turned out of her home, reassure her that, as long as she comes for treatment, her family does not have to know.</p> <p>Offer to talk with the family about TB if acceptable to the patient. Reassure the family that the patient will not be infectious after 2–3 weeks of treatment, as long as she continues treatment. Explain how TB is spread and how it can be prevented.</p>
A family member says that the TB patient cannot stay at home because the children will catch TB.	<p>Same as above, plus:</p> <p>If necessary, help the TB patient find a place to stay temporarily.</p>
The patient questions the need to use condoms since he does not have HIV.	Remind the patient that he could become infected with HIV at any time. He needs to use a condom to protect himself as well as others. If he becomes infected with HIV, it will be harder to be cured of TB.

9. Self-assessment questions (self-checked)

10. Concluding the module

Ask the group how they did on the self-assessment questions. If there are any questions about the answers or any other questions about the module, discuss them.

Make any important points that you want to reinforce with the participants.
Mention specific improvements that you have noticed in their communication skills.
Congratulate the participants on completing this module.

Facilitator Guidelines for

E: Identify and Supervise Community TB Treatment Supporters

Procedures	Feedback
1. Distribute module E: <i>Identify and Supervise Community TB Treatment Supporters</i> . Introduce the module.	-----
2. Participants read pages 1–6 in the module. When they reach the stop sign on page 6, they turn to page 26 and read the instructions for Exercise A. When everyone is ready, conduct the role play of helping a TB patient choose a community TB treatment supporter.	Role play
3. Participants read pages 7–9. When they reach the stop sign on page 10, they turn to Annex B (page 47) and read <i>A guide for tuberculosis treatment supporters</i> . Then participants go back to page 10 and continue reading. When they reach the stop sign on page 12, they turn to page 42 and read Annex A, <i>Training plan for a new community TB treatment supporter</i> .	-----
4. Conduct Exercise B, role play of training a community TB treatment supporter (page 30).	Role play
5. Participants go back to page 13 and read to page 16. When they reach the stop sign on page 16, they do Exercise C (page 34) as individual work.	Individual feedback
6. Participants go back to page 17 and read and work through the end of the module (page 23), including doing the self-assessment questions. They check their answers against those provided.	Self-checked
7. Conclude the module.	-----

1. **Introducing the module**

Explain that this module is written not for community TB treatment supporters but for the health facility worker who will:

- help a patient (who cannot come to the health facility for treatment) choose a community TB treatment supporter
- train and supply the community TB treatment supporter
- supervise the treatment supporter monthly.

Community TB treatment supporters must be well supervised by the health facility; the health facility must ensure that every TB patient receives effective treatment.

Review the objectives on page 2 of the module.

2. **Exercise A: Role play and discussion – Helping a TB patient choose a community TB treatment supporter**

Divide participants into groups of three for the role play.

Introduce the role play by explaining that each participant will have a turn to practise helping a TB patient choose a community TB treatment supporter. Review the instructions given in the module (pages 26–28).

The role play will only cover the part of the discussion in which the health worker helps the patient choose a suitable community TB treatment supporter, as described in the five bulleted items in the module on page 26. The role play will not cover other subjects such as informing a patient that he or she has TB, information about TB, etc.

For each group of three, specify who will be the first observer, the first health worker and the first patient. Remind participants that they may make up information if needed but that it should be realistic and consistent with the role description.

During the role plays, observe as much as possible. If a role play gets too far off track, interrupt to bring the health worker back to the five main points to cover (page 26). It is the observer's job to give feedback after the role play. After doing the role play, participants should change roles. It is important to keep the role plays moving so that participants do not become bored or frustrated.

Discussion

When everyone has had a turn as the health worker, bring the entire group together. Give general feedback and discuss any comments about the role plays. Then discuss the questions in the module on page 29. The discussion should address the possible types of community TB treatment supporters in participants' own areas who are likely to be effective.

Ask the participants to go back to page 7 and read until the next stop sign (page 10).

3. Annexes A and B

This assignment includes a lot of reading. It is good if you can plan a coffee/tea break or lunch break to occur during this assignment. If you have separate copies of *A guide for tuberculosis treatment supporters*, hand these out to participants as they will enjoy reading these instead of the copy in Annex B.

Participants read page 7 of the module to the top of page 10. When they reach the stop sign on page 10, they turn to Annex B (page 47) and read *A guide for tuberculosis treatment supporters* (or a separate copy of the guide).

Then participants go back to page 10 and continue reading. When they reach the stop sign on page 12, they turn to page 42 and read Annex A, *Training plan for a new community TB treatment supporter*.

When participants have finished reading the training plan, conduct Exercise B in which they will practice some parts of training a community TB treatment supporter.

4. Exercise B: Role play – Training a treatment supporter

Before the role play, gather the following items for this exercise for each group of three participants.

- One dose of the anti-TB drugs for the patient

- A glass of water

Before you begin this role play, make sure the participants have read the training plan (Annex A) and understand that it can be followed, step by step as written, to train a community TB treatment supporter. (They may modify the training to better suit their own circumstances after they have had some experience doing it.)

When the participants are ready for the exercise, tell them that this role play will help familiarize them with the training plan and provide some practice in training a community TB treatment supporter.

Divide participants into groups of three. Point out that (on page 30), the numbers of the steps to teach (5, 6 and 7) correspond to the numbers of the steps in the training plan. Each “health worker” will teach a “community treatment supporter” a different task.

Give each group the anti-TB drugs and a glass of water. Then explain where participants can find the other supplies needed:

- The new patient’s *TB Treatment Card* is on pages 32–33. Ask participants to finish preparing the card by writing in the drugs that will be given to the patient (the same drugs that you have given to each group).

- A guide for tuberculosis treatment supporters* is found in Annex B of the module. However, if you have separate copies of this guide, these will be easier to use in the role play.

Example *TB Treatment Cards* to use in teaching step 6 can be found in module C: *Treat TB Patients* (pages 81–86). Or, participants may use any other completed treatment cards in a module or answer sheet.

Review with the participants the instructions for preparing for and conducting Exercise B in the module on pages 30–31.

Tell participants to prepare themselves as described on page 30 and when they are ready, conduct the role play.

Watch the role plays as possible, interrupting only if necessary to get the role play back on track. When all three participants have finished the role play, they should discuss the two questions on page 31.

When the group has finished the exercise, ask participants to go back to page 13 and read until the next stop sign (page 16).

5. Exercise C: Written exercise with individual feedback – Checking and copying entries from a TB Treatment Card

When you check each participant’s work on this exercise:

Check that the participant has copied the entries accurately from the community TB treatment supporter’s copy of the *TB Treatment Card* to the health facility’s card. Discuss any differences.

Then compare the participant’s answers to the questions with the answer sheet. Question c) requires noticing details and thinking critically. If the participant spotted the problem of ticking days in the future, the participant deserves special congratulations. If not, show the participant the answers and discuss why they are correct.

Give the participant a copy of the answer sheet.

Ask the participant to go back to page 17, read section 4 and work to the end of the module (page 23).

6. Summary of important points and self-assessment questions

7. Concluding the module

If participants have any remaining questions about the module or the self-assessment questions, discuss them.

Make any important points that you want to reinforce with these participants.

Suggested Answers to Exercise C

- a) Yes, Mr Kumari has stopped giving treatment on Sundays.
- b) The patient has not gone out of town again.
- c) Yes. Even though today is 18 April, the treatment supporter has ticked the card through 22 April. It is wrong to tick the card before the treatment has been given.
- d) Ask Mr Kumari questions to find out if the drugs are really being given and why he ticked dates that are in the future. Tell Mr Kumari to never tick the card until after administering (directly observing) the treatment. This is very important.

Also talk to the patient to find out whether treatment is directly observed and whether the patient is really receiving treatment every day, as the card shows.

- e) Because, by April 22, Mrs Patel will have taken all 56 doses of the initial phase of treatment, she should then begin the continuation phase of treatment. The health worker should give Mr Kumari one month of the continuation-phase drugs. Since the regimen is 3 times weekly, that should be 12 doses of (RH), which is 36 (RH) tablets.

Facilitator Guidelines for

F: Manage Drugs and Supplies for TB

Procedures	Feedback
1. Make preparations for the exercise by obtaining or assembling several drug boxes.	-----
2. Distribute module F: <i>Manage Drugs and Supplies for TB</i> . Introduce the module. Tell participants whether they should or should not read Annex B when they reach the stop sign on page 7.	-----
3. If participants need to learn how to assemble drug boxes, they read pages 1–7 in the module, then Annex B, and then pages 8–12 in the module. If they do not need to learn how to assemble drug boxes, they read pages 1 through 12 in the module.	-----
4. When everyone has finished reading, lead Exercise A. Then lead a group discussion.	Group discussion
5. Participants go back to page 13 (Summary of important points) and read and work through the end of the module (page 17) including doing the self-assessment questions. They check their answers against those provided.	Self-checked
6. Conclude the module.	-----

1. Making preparations for the exercise

In Part 1 of Exercise A, participants examine one or more correctly assembled drug boxes. The drug boxes should be like those that will be provided or assembled at their health facilities. To prepare for the exercise, find out how participants are provided anti-TB drugs at their health facilities.

If health facilities are supplied with preassembled complete regimens, obtain two or more of these drug boxes per group (ideally, one box per two or three participants). Obtain drug boxes for different treatment regimens and weight ranges so that participants will see the differences.

If health facilities are supplied with anti-TB drugs in some other form and must assemble boxes, obtain quantities of the different drugs to assemble in boxes as models. These should be drug formulations and packaging that are identical or very similar to those that will be available at participants' health facilities. These may include blister packs, strips or bottles of anti-TB drugs. Then assemble drug boxes for participants to examine (make one box for every two to three participants, or at least two boxes per group). Assemble drug boxes for different drug regimens and weight ranges, so participants will see the differences. See the instructions below.

Remember that the Retreatment regimen includes streptomycin, which is usually not placed in the drug box. However, a supply of streptomycin (56 doses of streptomycin, 5 ml sterile water per gram of streptomycin, sterile needles and syringes) should be available in reserve for each patient on the Retreatment regimen. Be prepared to show streptomycin supplies for one Retreatment patient.

Part 2 is a discussion. If health facilities are supplied with preassembled drug boxes, no special preparation is needed for it. If health facilities must assemble boxes themselves, the discussion will be important to help participants plan how they will assemble boxes.

If you will need to assemble drug boxes for the exercise, begin at least several days ahead:

If you (the facilitators) will need to make the drug boxes yourselves, use the worksheet and follow the procedures in Annex B. In this way, you will become acquainted with how to assemble a drug box and can help explain the guidelines in Annex B to the participants. Begin this task several days ahead so that there is time to obtain all the necessary supplies.

1. Complete a *Worksheet for drug box assembly* for each different regimen and weight range that you will assemble. Use the drugs and formulations that will be available to participants. Each completed worksheet will be a guide for assembling a box. Make copies of a completed worksheet to show the participants.
2. Calculate the quantities of different drugs to obtain for the boxes. For each different regimen/weight range box that you will assemble:

- ☒ Specify the number of each different tablet that will be needed for each box.
 - ☒ Multiply this number by the number of boxes of the regimen/weight range to be assembled.
 - ☒ Round these numbers up to practical quantities (such as one bottle).
 - ☒ Note: For a Retreatment regimen, which includes streptomycin during the first 2 months, you will not place the streptomycin in the drug box. However, obtain 56 doses (streptomycin vials, water for injection, sterile needles and syringes) to demonstrate to participants how much should be in reserve for one Retreatment patient.
3. Specify other supplies needed, such as envelopes or paper to make daily packages, and boxes or bags to hold the complete regimen. For each regimen:
 - ☒ Calculate the number of envelopes needed and multiply by the number of boxes to be made.
 - ☒ Specify the number of boxes or bags needed
 - ☒ Specify other supplies that may be needed (labels for boxes, pens).
 4. Obtain the necessary drugs and other supplies.
 5. Assemble the boxes, according to your completed worksheets and the guidelines in Annex B.

2. Introducing the module

Explain that this module describes how to manage drugs and other supplies for management of patients with TB. Review the objectives on page 1.

Then give participants instructions about the reading:

If participants need to learn how to assemble drug boxes, tell them to read pages 1–7 in the module until they reach the first stop sign. Then read Annex B, as directed in the box at the stop sign. Then they will go back to page 8 and read through page 12.

If they do not need to learn how to assemble drug boxes, ask participants to read pages 1–12 in the module (skipping page 7 and Annex B). When they have finished reading page 12, they should let you know that they are ready to do Exercise A.

3. Participants read the module

4. Exercise A: Group practical exercise – Examining a drug box for a TB patient

Part 1 – Examine a drug box

Group participants in pairs and give each a drug box to examine. If there are not enough boxes to do this, divide participants into groups of three and give each a box to examine.

Ask participants to examine the drug box that they are given and write answers to the questions in the module. As it says in the module, they should notice how each drug looks (size, colour, shape), how the drugs are packaged in daily doses and how they are marked. They should also notice how they are grouped into initial phase and continuation phase, and how the entire box is labelled.

Watch participants and offer help to any participants who seem to be having difficulty. Check that participants have answered the questions correctly by looking over their shoulders at their answers, or by discussing the answers with each participant individually. Then ask participants to write answers to the questions for discussion. If possible, let participants also examine another box, so that they can see differences in other drug regimens and in doses for different weight ranges.

Show participants the streptomycin and supplies required for one patient on a Retreatment regimen. Health workers would probably not put the streptomycin in the drug box, but must put 56 doses (streptomycin vials, water for injection, sterile needles and syringes) in reserve for use with the TB patient.

Part 2 – Discussion

a) For participants who will assemble or modify drug boxes at their health facilities:

Turn to Annex B (which they should have read already). Explain how you assembled the boxes that they have examined and show the completed worksheet that you used. Answer any questions about Annex B, the worksheet or how you assembled the box.

Then lead a discussion of how and when participants assemble or modify TB treatment boxes at their health facilities by discussing the three questions in the module (page 21, under a). If they will receive fully assembled boxes, they may need to modify standard boxes for different weight patients. This discussion may be brief or lengthy, depending on the drug formulations provided to health facilities and how complicated the procedures will be to assemble or modify a drug box.

The discussion should help participants work out how they can assemble drug boxes with available materials. For example, if participants state that they do not have envelopes for daily doses, ask the group what can be used instead. Someone can probably show how to fold paper into a suitable package. If they state that there is no time to assemble drug boxes, help them work out a plan to make the time. Emphasize the importance of making drug boxes ahead of time. If participants are resistant to the idea of keeping a drug box for each patient, review the reasons given in the module (pages 3–4).

b) For all participants:

The questions under b) are designed to encourage participants to think about storage procedures at their own health facilities and to identify any improvements that should be made. During the discussion, you may refer participants to section 3 in the module (pages 11–12).

When the group has finished the discussion, ask participants to go back to page 13 and read and work to the end of the module (page 18).

5. Summary of important points and self-assessment questions

6. Concluding the module

Ask the group how they did on the self-assessment questions. If there are any questions about the answers or other questions about the module, discuss them.

Make any important points that you want to reinforce with these participants.

Facilitator Guidelines for

G: Ensure Continuation of TB Treatment

Procedures	Feedback
1. Distribute module G: <i>Ensure Continuation of TB Treatment</i> . Introduce the module.	-----
2. Participants read pages 1–6 of the module and then do Exercise A (page 20) individually.	Individual feedback and Group discussion
3. Participants read pages 7–11 of the module and then do Exercise B (page 24) individually as preparation for a group discussion.	Group discussion
4. Participants read the summary of important points (page 13) and then do the self-assessment questions. Participants check their own answers against those provided in the module.	Self-checked
5. Conclude the module.	-----

1. Introducing the module

Explain that, since treating a patient for TB is a very long process, it is critical to maintain contact with TB patients throughout their treatment. This module is about how to maintain contact with patients even when circumstances interfere.

Mention some common situations that will be discussed in this module. (See list on page 1 of the module.)

Ask participants to read in the module through page 6 (to the stop sign), and then follow directions for Exercise A (starting on page 20).

2. Exercise A: Written exercise followed by individual feedback and group discussion – Coordinating transfers and referrals

In the first part of this exercise, participants complete a *Tuberculosis Referral/Transfer Form* for a patient named Mr Jifar. After they complete the form, they should approach you for individual feedback. Compare their work to the form provided in the answer sheets. Give them a copy of the answer sheet (form only).

After receiving this individual feedback, participants should continue to work individually to answer questions 1–4 on page 23 of the module.

Group discussion

When everyone is finished, review the answers to questions 1– 4 as a group. Distribute copies of the answer sheet for the questions.

Then discuss various difficulties that may arise during transfers and how to handle them. Ask participants how they handle transfers at their facilities.

Do they follow up to confirm that patients report for treatment?

Do they follow up to determine the treatment outcome?

Could they do these things to ensure that transfers are successful?

Following are short scenarios that can be used to elicit discussion about referrals and transfers. Ask participants the questions on the left. Possible answers are on the right. You may be able to think of other situations to describe as well.

Facilitator asks: What would you do if ...?	Participants suggest actions such as:
A TB patient is moving to a distant place where you have no idea of the services available.	Ask the District TB Coordinator for help in determining an appropriate treatment facility near the patient's future home.

After being referred to a clinician for special care, patients do not return to your health centre to continue TB treatment.	<p>When referring patients, include a note asking the clinician to remind the patient to return to the health centre to continue TB treatment after receiving referral care.</p> <p>Instruct TB patients to return to the health centre after referral care.</p> <p>Ask the District TB Coordinator for help.</p>
A transfer patient has not reported to the new treatment facility.	<p>Contact the TB patient's neighbours or relatives to see if they have more recent, accurate information on the patient's whereabouts.</p> <p>Contact the new treatment facility to provide information about the TB patient and the new address. Inform the District TB Coordinator.</p>
A TB patient is moving and wants to carry his drug box to the new treatment facility	Give the patient enough anti-TB drugs for the days of moving, up to 2 weeks. Send the rest of the drug box to the new treatment facility through a messenger or the District TB Coordinator.

Also describe situations related to recording treatment outcomes for transferred or referred patients. Use the suggestions below.

Facilitator asks:	Participants should answer:
What treatment outcome would you record if ...?	The outcome is...
A transferred TB patient never reports to the new treatment facility and cannot be located.	Transfer out
A transferred patient began treatment at the new treatment facility but has not been seen for two months.	Default
The transferred patient died.	Died
A TB patient did not return to the health centre after referral to a physician. This physician does not know what happened after seeing the patient 2 months ago.	Default
A transferred patient completed treatment but did not have follow-up sputum smear examinations.	Treatment completed

Ask the participant to go back to page 7 of the module and continue reading until the next stop sign.

**G: Ensure Continuation of TB Treatment
Answers to Exercise A**

Tuberculosis Treatment Referral/Transfer

(Complete top part in triplicate)

Tick to indicate the reason for this referral or transfer:

☐ Referral¹ to register and begin TB treatment

☐ Referral for special care²

or ☒ Transfer³

Date of referral/ transfer 15 June 2009

Name/address of referring/transferring facility

From sending facility: Maturana Health Centre, M. Ghandi Rd, 274, Lakari Sending District Kalbit

To receiving facility: Samarkola Health Centre Block 4, Nehru Place Receiving District Samarkola

Name of patient Tesfaye Jifar Age 32 Sex: ☒ M ☐ F

Address of patient (if moving, future address): Garan Du Street 137 Samarkola

Diagnosis: Pulmonary TB

(For Transfer) District TB Register No. 798

Date TB treatment started: 6 March 2009

TB Treatment Regimen:

☒ New ☐ Retreatment

2(RHZE)/4(RH)₃

Other (CPT, ART etc):

Drugs patient is receiving (Rifampicin 150mg + Isoniazid 150mg)
3 tablets, 3 days per week

Remarks (e.g. side-effects observed): _____

Name / signature of person sending the patient R. Ali Moran

Documented evidence of HIV tests (and results) during or before TB treatment should be reported.



Return this part to facility that referred / transferred patient as soon as patient has reported.

To be completed by facility receiving referred / transferred patient

District _____ Facility _____

District TB Register No. _____ Name of patient _____

The above patient reported at this facility on _____ (date)

Name / signature of person receiving the patient _____

¹ **Referral** is the process of moving a TB patient **prior to registration in a District TB Register** for the purpose of start of treatment (treatment closer to patient's home). The district receiving a "referred" patient is responsible to inform the facility sending the patient about the care provided.

² **Referral for special care** is indicated when the patient is very sick or has major side effects and is referred to a clinician or hospital for special care. When discharged, the patient should return to the original health facility to continue TB treatment.

³ **Transfer** is the process of moving between 2 districts a **TB patient registered in a District TB Register** to continue his treatment in another area with a different **District TB Register**. The district 'transferring-out' a patient is responsible to report the treatment outcome, after getting the information from the district completing the treatment. The district receiving a patient 'transferred-in' is responsible for informing the district sending the patient 1) of the arrival of the patient and 2) at the end of the treatment, of the treatment outcome.

Answers to Exercise A, Questions 1–4

1. Contact the Samarkola Health Centre to find out if Mr Jifar has reported for treatment. If not, give the health centre any contact information that you have.
2. Contact the Smarkola Health Centre towards the end of September, when Mr Jifar's treatment should be completed. Reasoning:

According to his *TB Treatment Card*, Mr Jifar started the continuation phase in mid-May (13 May 2009). Mr Jifar should have completed his 4 months of the continuation phase in mid-September, but he will not finish until the end of September since he missed 2 weeks of doses after his move.

3. "Treatment completed" is the outcome.
4. On the back of the original *TB Treatment Card*, the outcome "transfer out" and the date 17 June should be marked out. The date 1 October 2009 should be recorded, and the box for "treatment completed" should be ticked.

3. Exercise B: Written exercise and discussion – Tracing patients who miss a dose or interrupt treatment

The purpose of this exercise is to get participants to discuss and begin planning:

- how to prevent patients from missing doses or interrupting treatment, and
- how to trace patients who miss doses or interrupt treatment.

After participants have written brief answers to questions in the module, lead a discussion. Encourage participants to share ideas that have worked at their health facilities.

After the discussion, tell participants to go back to page 13, read the Summary of important points and work to the end of the module (page 17).

4. Self-assessment questions (self-checked)

5. Concluding the module

Ask the group how they did on the self-assessment questions. If there are any questions about the answers or any other questions about the module, discuss them.

Make any important points that you want to reinforce with the participants. Congratulate the participants on completing this module.

Facilitator Guidelines for

H: Monitor TB Case Detection and Treatment

Procedures	Feedback
1. Distribute module H: <i>Monitor TB Case Detection and Treatment</i> . Introduce the module.	-----
2. Participants read through page 4 of the module and refer to the <i>Summary Worksheets A and B</i> on pages 15 and 16. Explanation to the group: <i>Summary Worksheets A: TB case detection and HIV testing and B: TB treatment</i>	-----
3. If participants have recently completed module B: <i>Detect Cases of TB</i> , omit Optional Exercise A. Otherwise, participants should complete the exercise (pages 35–43).	Individual
4. Participants read page 5 to the stop sign on page 8 and then do Exercise B, which begins on page 45.	Individual
5. Participants read page 8 to the stop sign on page 10 and then do Exercise C, which begins on page 57.	Individual
6. Participants read pages 10–13 of the module. Explanation to the group: Time line for compiling data and analysing indicators.	
7. Participants do Exercise D, which begins on page 71.	Individual
8. Participants read pages 14 to the stop sign on page 17 and do Exercise E (pages 81–85).	Individual
9. Participants read pages 17–20 and do Exercise F (page 87).	Individual
10. Participants read pages 21–24 and then do Exercise G, preparation for group discussion (page 91).	Group discussion
11. Participants turn back to page 25 to read the summary of important points and do the self-assessment questions. Participants check their own answers against those provided in the module.	Self-checked
12. Conclude the module.	-----

Preparation to teach this module

Make overhead transparencies by printing or copying the following pages on transparency film:

Summary Worksheets A and B (pages 15 and 16 in the module)
Time line for Data Compilation and Analysis (page H-18 and H-19).

1. Introducing the module

Monitoring of TB case detection and treatment activities is a simple and very important task, but one that is very rarely done.

Ask participants what they understand the word “monitor” to mean. They will probably associate monitoring with keeping records, making graphs, etc. Explain that monitoring is more than record keeping. It involves reviewing and analysing the records kept. It is an important way to identify successes and problems, such as a low proportion of TB suspects being tested, or a high number of defaulters from treatment. Just as you would follow up patients to see if they are recovering, you should review TB control activities to see if they are improving.

This module describes self-monitoring by the health facility, which should not be confused with monitoring done by the District TB Coordinator for the entire district. Self-monitoring is important for the health facility’s own benefit, as a means to improve TB control activities. The data collected for self-monitoring may also be used by the District TB Coordinator to analyse indicators for the district as a whole. At the district level, since there are larger numbers of cases involved, some additional indicators may be analysed.

Note that the worksheets in this module are to facilitate training and initial practice in compiling and analysing data. After gaining some experience, participants may not need the worksheets. The worksheets are not required TB programme forms.

Tell participants that this module includes some mathematical terms such as “proportion, percentage, rate.” If these terms are unfamiliar, participants should look them up in the Glossary at the end of module A: *Introduction*. Encourage participants to ask questions if they still do not understand a term.

Ask participants to read in the module through page 4 and stop at the stop sign.

2. Explanation of Summary Worksheets A and B

Ask participants to turn to the *Summary Worksheets* on pages 15 and 16. Page 15 shows an example *Worksheet A: Indicators to monitor TB case detection and HIV testing* completed for Malini Health Centre. Point out that there is a blank *Summary Worksheet A* in the *Reference Booklet*.

Project an overhead transparency of a blank *Summary Worksheet A* as you give a brief explanation. Point to the relevant sections of the worksheet while you talk. Include the following points:

- This worksheet summarizes the indicators that a health facility should monitor.
- The top part shows three indicators related to TB case detection. The bottom part shows indicators related to HIV testing and HIV status. First, we will focus on the top indicators, those related to **TB case detection**. (*Read the three indicators.*)
- These three indicators should be measured just after the end of each quarter, for that quarter. (*Show where to record the time frame. Record the previous quarter for Malini Health Centre as the 2nd quarter of 2008.*)
- Each of these three indicators is calculated from data that can be found in the health facility's outpatient records and the *Register of TB Suspects*. You will compile this data on *Worksheet 1* (which you will learn about in the next section of the module.)
- The results of *Worksheet 1* will be the numerators and denominators that you see in this column. (*Point to the fourth column.*) These references in parentheses are to steps on *Worksheet 1*. For example, if step 1a of *Worksheet 1* indicates that that there were 2800 general outpatients aged 15 years and over, you would record it here. (*Record 2800 on overhead by 1a.*) And if step 1b indicated there were 125 TB suspects identified, you would record it here. (*Record 125 by 1b.*)
- In the last column, you can divide the numerator by the denominator to find a proportion. For example, 125 divided by 2800 is 0.04 or 4%. (*Record in the last column.*) You will learn to do that step later in the module. In this example, 4% of outpatients aged 15 years and over were identified as TB suspects.
- The bottom part of the *Summary Worksheet A*, related to HIV testing and HIV status, is also completed at the end of each quarter. (*Read the three indicators.*) It is completed in a similar way, using *Worksheet 2*. You will learn to complete the bottom part of the *Summary Worksheet A* later in the module.

3. **Optional Exercise A: Written exercise followed by individual feedback – Recording in the Register of TB Suspects**

If participants have just completed module B: *Detect Cases of TB* as part of a comprehensive course, omit this exercise. If participants have not done that module, then this exercise is needed. Refer to the answer sheet and facilitator guidelines for Exercise B of module B: *Detect Cases of TB* (in section B of this *Facilitator Guide*).

4. **Exercise B: Written exercise followed by individual feedback – Compiling data related to case detection**

As participants read pages 5 to the stop sign on page 8 and do Exercise B, be available to help participants who may appear confused or have questions.

Notice that information about the quarter and the answer to step 1a of *Worksheet 1* are provided in the information on page 45 of the module. Other information is in the eight pages from the *Register of TB Suspects* (pages 47–54).

When participants come to you for feedback, compare their answers with those provided on the answer sheet. If there are errors, check for the following possible causes:

- The participant may have counted entries that are not during the quarter, 1 January to 31 March. (Notice that the last 10 entries are for April.)
- The participant may have counted cases who are aged under 15 years. Notice that there are two younger cases whose entries should be marked through: Joshua Karnga (TB suspect number 17) and Mary Hoda (TB suspect number 53).
- There may be other counting errors.

Filling out a worksheet may seem like an easy, mechanical task; in reality, there are many possibilities for error.

Point out step 1a on *Worksheet 1*, and ask participants what kinds of records are available in their own health facilities for determining the number of outpatients aged 15 years and older in a quarter (e.g. patient register, tally sheets). If there are no suitable records, how could you estimate this number?

Refer to the *Summary Worksheet A* to remind participants what indicators will be measured using the data that they have just compiled. For example, show how the result of step 1b from *Worksheet 1* (number of TB suspects identified) is used as a numerator to calculate the proportion of outpatients aged 15 years and over who were identified as TB suspects. It is also used as a denominator in the next indicator.

Point out that the case detection indicators are limited to TB suspects identified at the health facility and cases detected by sputum smear examination. Other cases may be identified by clinician diagnosis, but they are not included in the indicators, which are intended to reflect the sputum smear-positive cases identified through the efforts of the health facility itself.

After giving individual feedback, tell the participant to go back to page 8, section 2, and read to the next stop sign.

Answers to Exercise B

Worksheet 1: Data on TB case detection

Circle the previous quarter: 1 2 3 4 of year: 2009

Record the dates included in the previous quarter: 1-1-09 – 31-3-09

1a. 3000

1b. 150

1c. 140

1d. 14

**5. Exercise C: Written exercise followed by individual feedback –
Compiling data related to HIV testing and HIV status of TB patients**

As participants read page 8 to the stop sign on page 10 and do Exercise C, be available to help participants who may appear confused or have questions.

Notice that information about the quarter and a description of doing step 2a of *Worksheet 2* are provided on page 57 of the module. (Step 2a was done for the participants and the *TB Treatment Cards* found are shown on pages 58–67).

When participants come to you for feedback, compare their answers with those provided on the answer sheet. If they have made mistakes, ask them to show you where they looked on the *TB Treatment Cards* for the information. Then ask them to recount.

Refer to the *Summary Worksheet A* to remind participants that the bottom three indicators will be measured using the data that they have just compiled. For example, show how the result of step 2c from *Worksheet 2* (number of TB patients tested for HIV) is used as a numerator to calculate the proportion of TB patients who were tested for HIV before or during TB treatment. It is also used as a denominator in the next indicator.

Point out that the case detection indicators are limited to TB suspects and smear-positive TB cases aged 15 years and over. However, these indicators related to HIV testing and HIV status are calculated for all TB cases, of any age and any type of TB.

After giving individual feedback, tell the participant to go back to page 10, section 3, and read to the next stop sign.

Answers to Exercise C

Worksheet 2: Data on HIV testing and HIV status

Circle the previous quarter: 1 2 3 4 of year: 2009

Record the dates included in the previous quarter: 1-1-09 – 31-3-09

2b. 20

2c. 20

2d. 8

2e. 7

6. Explanation of time line

An overhead transparency and overlay are provided to help you explain the time line for compiling data and analysing indicators. There is also an example of the time line on page 11 of the module. The overhead is made of two parts (pages H-18 and H-19):

- Overhead transparency: time line for data compilation and analysis
- Overlay for time line overhead transparency.

Photocopy these two pages on clear overhead transparency film.. Then cut out the overlay for the time line. (Keep it all in one piece, cutting along the dotted line). Lay the overlay over the time line. You can then move it back and forth to show the quarters for which different types of data are compiled at a given time.

Use the timeline transparency and overlay to explain that, at the end of a quarter, one should compile and analyse data not only from that quarter but also from previous quarters. For example, point the arrow on the overlay just after the end of quarter 3 of 2009. Then look to see where the brackets under the time line are. These brackets show that it is time to compile data on:

- case detection, for quarter 3 of 2009 (the quarter that just ended),
- HIV testing, for TB patients who began treatment in the same quarter,
- conversion, for patients who began treatment in quarter 2 of 2009,
- treatment outcomes, for patients who began treatment in quarter 3 of 2008.

Move the slide to show different examples. Include an example for shortly after the end of the current quarter.

Be sure that participants understand the reason for waiting to measure indicators related to conversion and treatment outcomes. One must wait long enough for conversion to occur (2–3 months) and for treatment outcomes to be determined (12 months, to allow plenty of time for all TB patients to complete treatment).

After the explanation of the time line, ask participants to do Exercise D, which begins on page 71 of the module. In this exercise, they will compile data on conversion and treatment outcomes for Nikobo Heath Centre using *Worksheet 3*.

7. Exercise D: Written exercise followed by individual feedback –Compiling data related to TB treatment

Check each participant's answers by comparing them with the answer sheet. Stress that Part A of Worksheet 3 (Conversion) is completed for a **different** group of patients than Part B (Treatment outcomes). This is because conversion occurs sooner than a final treatment outcome, so the data about conversion is available sooner, within 3 months. For treatment outcomes, one must wait longer, about a year.

Point out the relevant sections of *Summary Worksheet B*, so that participants can see which indicators will be measured using the data that they have just compiled.

After feedback, tell participants to go back to page 14, section 4, and read until the next stop sign.

Answers to Exercise D

Worksheet 3: Data on TB treatment

Part A – Conversion (for the quarter that ended 3 months ago)

Circle the quarter that ended 3 months ago: 1 2 3 **(4)** of year: 2008

Record the dates in that quarter: 1 Oct '08 – 31 Dec '08

3a. } *Already done; 9 treatment cards found for smear-positive*
 3b. } *cases put on treatment in 4th quarter of 2008*

3c. *The participant should have noticed that one case (John Masinda) was not new but was a relapse. Thus, John Masinda's card should be "put back in the files" and not counted in the next step.*

3d. 8

3e. 6

Part B – Treatment outcomes (for the quarter that ended 12 months ago)

Circle the quarter that ended 12 months ago: **(1)** 2 3 4 of year: 2008

Record the dates in that quarter: 1 Jan '08 – 31 Mar '08

3f. 10

Number of cases with each outcome:

3g. 4 Cure

3j. 0 Treatment failure

3h. 2 Treatment completed

3k. 1 Died

3i. 2 Default

3l. 1 Transfer out

8. Exercise E: Written exercise followed by individual feedback – Calculating indicators

Check the participant's *Summary Worksheets A and B* by comparing them with the answer sheets. Review both worksheets in their entirety with the participant. Remind the participant that the worksheets are all completed at the same time, but that different indicators require data related to different quarters.

Check the answers that the participant has written to questions in the module on page 81–82 (see the answer sheet on page H-13). These questions are intended to make sure that the participant can understand and express the results on the *Summary Worksheets* in words. Participants need to understand what the proportions calculated mean.

Give the participant copies of the answer sheets.

After giving individual feedback, ask the participant to go back to page 17, section 5, and read until the next stop sign.

Summary Worksheet A: Indicators to monitor TB case detection and HIV testing

To monitor:	Measure these indicators:	Record time frame: ^a	How to calculate (numerator / denominator) ^b	$\frac{x}{y}$	Calculate and record result (%) here:
TB case detection <i>(using data from Register of TB Suspects, compiled on Worksheet 1)</i>	Proportion of outpatients aged 15 years and over who were identified as TB suspects	previous quarter: 1st quarter, 2009	<u>Number TB suspects identified (1b)</u> Total outpatients aged 15 years and over (1a)	$\frac{150}{3000}$	5%
	Proportion of TB suspects whose sputum was examined for TB		<u>Number TB suspects whose sputum was examined (1c)</u> Number TB suspects identified (1b)	$\frac{140}{150}$	93%
	Proportion of TB suspects tested who were sputum smear-positive		<u>Number smear-positive cases detected (1d)</u> Number TB suspects whose sputum was examined (1c)	$\frac{14}{140}$	10%
HIV testing and status <i>(Using data from TB Treatment Cards, compiled on Worksheet 2)</i>	Proportion of all TB patients who were tested for HIV before or during TB treatment		<u>Number of TB patients tested for HIV (2c)</u> Number of TB patients (2b)	$\frac{20}{20}$	100%
	Proportion of all HIV-tested TB patients who are HIV positive		<u>Number of HIV-positive TB patients (2d)</u> Number of HIV-tested TB patients (2c)	$\frac{8}{20}$	40%
	Proportion of all HIV-positive TB patients who are on CPT		<u>Number of HIV-positive TB patients on CPT (2e)</u> Number of HIV-positive TB patients (2d)	$\frac{7}{8}$	87.5%

^a The time frame applies to the denominator. The persons in the numerator are part of this group.

^b Step numbers in parentheses tell where to find the numerator and denominator on Worksheet 1, 2 or 3.

Summary Worksheet B: Indicators to monitor TB treatment

To monitor:	Measure these indicators:	Record time frame: ^a	How to calculate (numerator / denominator) ^b	$\frac{x}{y}$	Calculate and record result (%) here:
TB treatment <i>(using data from Register of TB Suspects and TB Treatment Cards, compiled on Worksheet 3)</i>	Conversion rate: Proportion of new sputum smear-positive TB cases that converted at 2 or 3 months	quarter that ended 3 months ago: 4th quarter, 2008	Number new smear-positive cases that converted at 2 or 3 months (3e) Number new smear-positive cases put on treatment (3d)	$\frac{6}{8}$	75%
	Treatment outcomes: Proportion of new sputum smear-positive cases that: <ul style="list-style-type: none"> – were cured 	quarter that ended 12 months ago: 1st quarter, 2008	Number new smear-positive cases cured (3g) Number new smear-positive cases put on treatment (3f)	$\frac{4}{10}$	40%
	<ul style="list-style-type: none"> – completed treatment 		Number new smear-positive cases that completed treatment (3h) Number new smear-positive cases put on treatment (3f)	$\frac{2}{10}$	20%
	<ul style="list-style-type: none"> – defaulted 		Number new smear-positive cases that defaulted (3i) Number new smear-positive cases put on treatment (3f)	$\frac{2}{10}$	20%
	<ul style="list-style-type: none"> – were a treatment failure 		Number new smear-positive cases that failed treatment (3j) Number new smear-positive cases put on treatment (3f)	$\frac{0}{10}$	0%
	<ul style="list-style-type: none"> – died 		Number new smear-positive cases that died (3k) Number new smear-positive cases put on treatment (3f)	$\frac{1}{10}$	10%
	<ul style="list-style-type: none"> – transferred out 		Number new smear-positive cases that transferred out (3l) Number new smear-positive cases put on treatment (3f)	$\frac{1}{10}$	10%

^a The time frame applies to the denominator. The persons in the numerator are part of this group.
^b Step numbers in parentheses tell where to find the numerator and denominator on Worksheet 1, 2 or 3.

Answers to Exercise E, continued

Answers to questions in the module, pages 81–82:

3.

- a) 140 TB suspects had their sputum tested.
93% of TB suspects had their sputum tested.
- b) 20 patients were tested for HIV.
40% of the TB patients tested had HIV-positive results.
88% of the HIV-positive TB patients are on CPT.
- c) In the quarter that ended 3 months ago, 8 new sputum smear-positive cases were put on treatment. Of these cases, 6 converted at 2 or 3 months. This means that 75% of the cases converted.
- d) 10 new sputum smear-positive cases were put on treatment.
- e) 4 cases of the 10 were cured.
That means that 40% (4/10) were cured.
- f) 2 cases completed treatment.
That means that 20% (2/10) completed treatment.
- g) 40% cured + 20% completed = 60% “treatment success”
- h) 2 cases defaulted. That means 20% (2/10) defaulted.

9. Exercise F: Written exercise followed by individual feedback – Graphing data and analysing indicators

As participants work individually on the written part of this exercise, look over their shoulders to ensure that they are completing the graph properly. Offer help as needed.

Use the answer sheet given as a guide for individual feedback. Participants may have different ideas and interpretations.

After individual feedback, tell the participant to go back to page 21, section 6, and read until the next stop sign.

Answers to Exercise F

Part A: Graph

Graph: The final points plotted should be 140 TB suspects tested and 14 sputum smear-positive cases detected.

1. The number of TB suspects tested has increased greatly (tripled).
The increase could be due to improvements in the following areas:
 - better identifying TB suspects among sick patients,
 - screening all adults attending the facility for cough of more than 2 weeks' duration,
 - collecting sputum samples from TB suspects,
 - being sure to send the sputum samples to the laboratory, and
 - obtaining and recording results of sputum examinations.
2. The number of sputum smear-positive cases detected has stayed about the same.
The percentage of TB suspects tested who were smear-positive is now in the expected range (14 out of 140, or 10%). Formerly, although fewer TB suspects were tested, a much higher percentage were smear-positive, suggesting that sputum samples were only collected for patients who obviously appeared sick. Since the number of cases detected has not increased with the number of suspects tested, it is possible that health workers were doing a good job “guessing” who had TB.

Another possible explanation is that, by aggressive testing, the health centre is now finding almost all of the smear-positive TB cases in the community; if this is true, the number of cases detected each quarter is not likely to increase. However, cases are probably being detected earlier so that they are less likely to infect others.

Part B: Analysing indicators

1. The last row should show:
The proportion of all TB patients who were tested for HIV before or during TB treatment = 20 out of 20, or 100%
The proportion of all HIV-positive patients who are on CPT = 7 out of 8, or 88%.
 - a) Yes, it has reached 100%.
The training was successful.
 - b) It has not reached 100%, but it has reached the desired level, because the only case who is not on CPT was taken off it because of an allergy to co-trimoxazole.
 - c) It could decrease if supplies of co-trimoxazole were insufficient, or if new staff were not trained to provide CPT to HIV-positive TB patients.
2. The last row of the table should show that 6 out of 8 cases, or 75%, converted.
 - a) The conversion rate has increased.
Patient compliance and treatment practices are probably improving.

H: Monitor TB Case Detection and Treatment
Answers to Exercise F, continued

- b) The conversion rate has not quite reached the desired level of at least 80%.
There may still be some problems with patient compliance or treatment practices.
- 3. a) The proportion of cases cured is higher than the proportion that completed treatment. This suggests that follow-up sputum examinations are being done to prove cures. However, it is important to try harder to do follow-up examinations on all of the cases.
- b) The proportion that completed treatment plus the proportion cured is 60%.
The proportion that defaulted is 20%.
- c) 20% default is much higher than the desired percentage of less than 5%.
Improvements may be needed to ensure that patients do not default, and that outcomes are found for patients who transfer.

Investigate problems related to convenience of treatment and motivation of patients:

Must TB patients wait to receive treatment?

Are community treatment supporters used as needed?

Do patients understand the importance of completing treatment even after they feel better?

10. Exercise G: Group discussion – Monitoring and problem solving

Use the questions given in the module on page 91 as a guide for the discussion. The objective is to get participants to think about how they can monitor the work of their own facilities, and how they can use monitoring to identify and solve problems.

Stress the importance of looking at the results of their efforts and making adjustments as needed. Suggest that a graph, such as the one for Nikobo Health Centre, could be made and displayed at their own health facilities. It can be motivating to see improvements over time.

When discussing problems, be sure to discuss possible causes of the problems before suggesting solutions. Stress that solutions must be appropriate for the causes.

Either in this discussion or in concluding the module (below), stress the following points:

Monitoring is not just collecting data; it is important to look at the numbers and see what they mean.

Monitoring can be very basic. To monitor TB case detection and treatment, you only need a few basic numbers: TB suspects, smear-positive cases, TB patients tested for HIV, conversion, cure and treatment completion.

Monitoring requires practice. Practise until you can compile data and do the calculations without error.

After the discussion tell participants to go back to page 25 and read and work to the end of the module.

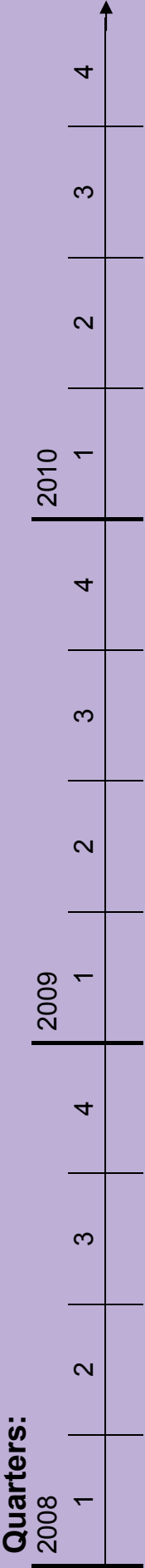
11. Self-assessment questions (self-checked)

12. Concluding the module

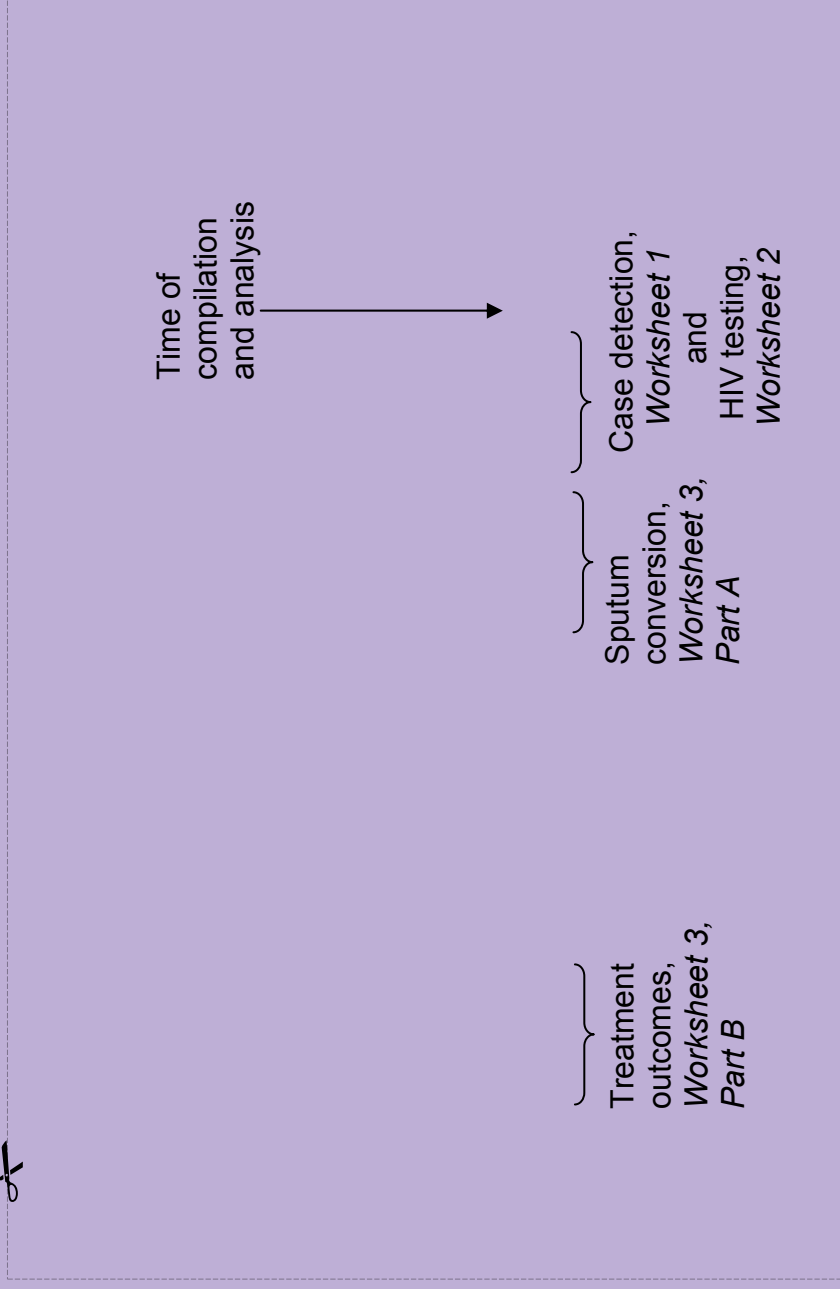
If participants have any remaining questions about the module or the self-assessment questions, discuss them.

Make any important points that you want to reinforce with the participants. Congratulate the participants on completing this last module of the course.

Overhead: Time line for data compilation and analysis
Use with module H: Monitor TB Case Detection and Treatment



Overlay for Time Line
Cut out and lay over time line



Facilitator Guidelines for

I: TB Infection Control in your Health Facility

Procedures	Feedback
1. Distribute module I: <i>TB Infection Control in your Health Facility</i> . Introduce the module.	-----
2. Participants read pages 1–10 in the module. When they reach the stop sign on page 10, they turn to page 22 and do Exercise A as individual work.	Individual feedback
3. Participants read pages 10–11. When they reach the stop sign on page 11, they turn to Exercise B (page 24). They write answers to the questions. Lead a group discussion of Exercise B.	-----
4. Participants go back to page 13 and read and work through the end of the module (page 19) including doing the self-assessment questions. They check their answers against those provided.	Self-checked
5. Conclude the module.	-----

1. Introducing the module

Explain that this module describes ways to control the spread of TB and other airborne infections in your health facility. It also touches on procedures that will have an important impact on preventing the spread of HIV, and thereby reducing TB.

Review the objectives on page 2 of the module.

2. Exercise A: Written exercise with individual feedback – Choosing infection control procedures

Check the participant's answers against the answer sheet. Check that the participant identified all the statements that are not currently valid (only statements 1, 2, 5 and 10 are valid as written). There are many possible ways to edit the rest of the statements to make them better. The answer sheet shows one way. Look carefully at each of the participant's rewritten statements to be sure that they describe something that is an effective control procedure.

Give the participant a copy of the answer sheet. Ask the participant to go back to page 10 and read until the next stop sign (page 11).

3. Exercise B: Written exercise followed by group discussion – Reducing risk of TB transmission in your health facility

Participants should write thoughtful answers to the questions, in preparation for the group discussion.

This discussion is an opportunity for participants to think about each of the methods described in this module and to assess their own health facilities. Allow plenty of time for this discussion, perhaps one hour.

Ask different participants to share their answers to each question. If a participant says that improvements cannot be made in his health facility to reduce the spread of TB, be sure to ask why. Listen to whether the conditions are currently ideal, whether the participant does not recognize any problem, or whether the participant is assuming that the constraints cannot be overcome. If the participant does not recognize a problem or if there are constraints, ask the group for suggestions for improving the situation.

At the end of the discussion, ask participants to go back to page 13, and read and work to the end of the module.

4. Summary of important points and self-assessment questions

5. Concluding the module

If participants have any remaining questions about the module or the self-assessment questions, discuss them. Then make any important points that you want to reinforce with these participants.

Possible Answers to Exercise A

Panola Health Facility Infection Control Procedures

- ✓1. All health workers should wash their hands before and after each patient contact.
- ✓2. The waiting area for sick patients is moved to the outdoor breezeway.
- 3. The waiting room for well patients and non-infectious patients is still in the front room. The fan in the waiting room should ~~stay in front of the open window to blow fresh air into the room.~~ **be placed in a window to pull air out of the health facility and blow it to the outdoors.**
- 4. ~~Persons with HIV are asked to wear masks in the waiting area so that they won't catch TB or other infections.~~ Masks or tissues may be given to ~~others~~ **persons who cough who request them to protect themselves from infection to help prevent the spread of infection to others.**
- ✓5. The exhaust fans in the three examination rooms will be maintained in working order and should remain on during the day.
- 6. Keep all other windows ~~closed~~ **open** all day, and air out the facility at closing time.
- 7. Staff should ~~wear masks~~ **ensure good ventilation** in the room when giving directly-observed treatment to new TB patients.
- 8. TB suspects should be sent ~~to the toilet~~ **outdoors** to cough up sputum, not into the hall.
- 9. HIV-infected persons who **are household contacts of a TB patient** and do not have TB will be given IPT.
- ✓10. Dispose of all needles in the sharps container.

Facilitator Guidelines for

J: Field Exercise – Observe TB Management

Procedures	Feedback
1. Find out about preparations made for the field exercise or make preparations.	-----
2. Distribute module J: <i>Field Exercise – Observe TB Management</i> ahead of time. Introduce the field exercise. Participants read the module. Make assignments.	-----
3. Participants do the field exercise: they visit a health facility to observe procedures, review records and talk to health workers. Participants write answers to the questions on their assigned lists.	-----
4. Lead a discussion of the field exercise and improvements needed at participants' own health facilities.	Group discussion
5. Conclude the module.	-----

1. Preparations for the field exercise

The field exercise must take place after participants have already learnt about TB case detection and treatment. They may also observe additional aspects such as informing patients about TB, community TB treatment supporters and drug supplies if they have completed the relevant modules.

The course director and/or the facilitators must determine which lists the participants will complete during the field visit. This will depend on what modules the participants have finished, whether there is a microscopy laboratory, whether TB patients will be present to be observed during the visit, and the willingness and availability of the staff. In a very busy or crowded clinic, there is little room for participants, and the staff do not have time to answer questions from participants. Choose the lists carefully and make sure that the participants will be able to complete them without disrupting the work of the health facility.

All the participants will not work on the same list at the same time. Instead, they will work in pairs or groups of three on different lists. When they have finished one list, they may do another.

Visits should be scheduled to avoid having too many visitors at a time. If the facility is very small and the group is large (e.g. 8–10 participants), the participants should be divided into two groups to visit in shifts or to visit two different facilities.

The course schedule should allow about one-and-a-half hours at the health facility. Time for transport to and from the health facility is in addition.

Your group may also visit a laboratory in the health facility (or nearby) that does sputum smear examinations. The course director will inform you of the arrangements that have been made and the schedule for the visit.

2. Introducing the field exercise

Distribute the module ahead of time so that participants have time to read the module, think about their assignments and understand what they will do. It is best to distribute the module and give participants time to read it on the day before the field exercise. If the class schedule will not allow participants to read the module in the classroom, distribute the module at the end of the day and ask participants to read it overnight. Then introduce the exercise and make assignments the next day.

When you distribute the module, explain the purpose and review the objectives on page 1. Explain that the module is not an instructional text like the others. Instead, it is a set of lists to use during the field exercise.

Also review the nine lists in the table of contents. Tell the participants which lists they will be asked to do. Explain that the others will not be done. (For example, List 8 would be omitted if community TB treatment supporters are not used in the area; List 9 would be omitted if the participants have not yet completed module F: *Manage Drugs and Supplies for TB*).

Ask participants to read the module (pages 1–21). Identify the pages to skip (because those lists will not be done).

Inform the participants of the schedule for travel to the health facility.

Making assignments

After participants have finished reading the module, make assignments. Explain that different participants will be assigned to observe or ask about different aspects, each described in a different list, and take notes. They will take turns (working in pairs or groups of three) observing or asking the questions on the different lists. (For example, only one pair is interviewing a health worker about identifying TB suspects at a time; only one pair is reviewing the *Register of TB Suspects* at a time). Participants should write answers to the questions in their assigned lists and any additional notes of explanation. When the group is back together, participants will share their findings.

Divide the participants into groups of two or three. Then assign each list to one or more small groups. Some lists will require longer to complete. Try to assign work so that each participant will be busy for about an hour. (Participants will learn about lists that they did not work on themselves when the group discusses their findings after the field exercise.) Use the grid below to work out the assignments. Keep in mind that you want to spare the staff repetitive interviews.

The lists are provided to guide the observations and interviews, so that participants will notice the important items. This is not a formal data collection exercise. The information will not be tallied. Participants will report on their findings to others in course for purposes of learning.

Discuss with the participants that they are observing and asking questions in order to learn how case detection and treatment are done at this health facility. They should take care not to offend the staff there. They may need to explain that they are not evaluating but are observing and asking questions in order to learn.

Participant name	Lists assigned		
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Participant name	Lists assigned		
8.			
9.			
10.			
11.			
12.			

3. **Field Exercise: Group activity – Visiting a health facility to observe and ask health workers about TB case detection and treatment**

Travel to the health facility with the participants in your group. On arrival, find the person in charge and introduce yourselves. Ask for instructions and help as needed. For example,

Ask to see the *Register of TB Suspects* and some *TB Treatment Cards*.

Ask to speak with a health worker who can answer questions about how TB suspects are identified.

Ask to speak with a health worker who can answer questions about sputum collection, or TB treatment.

Ask where participants can observe treatment of TB patients, if any TB patients are present.

Ask where participants can see anti-TB drugs in storage.

Get the participants started, with each small group of two or three participants working on a different list. When they finish one list, they can move to another area of the health facility and work on another list. Watch that the participants are working and assist when any participant cannot find the information needed or is not sure what to do. If any list is not possible to complete, or if a participant has quickly completed the assignment and has nothing to do, make additional assignments.

If a visit to a microscopy laboratory has been arranged, take the participants as planned. In the laboratory, a staff member should explain the path travelled by a sputum sample after it arrives for examination. Participants should ask the questions on the list and examine the *Tuberculosis Laboratory Register*. If possible, participants should look through the microscope to see a sputum smear that is positive for acid-fast bacilli.

After participants have been working for an hour or so, gather them together to end the exercise. Thank the staff for their help.

4. Group discussion of field exercise and improvements needed at participants' own health facilities

On return to the classroom, ask participants to write answers to the questions on page 20 and let you know when they are ready for the discussion.

To conduct the discussion of question 1, ask about each list in turn and let the participants who worked on that list report their findings. They should refer to their notes written during the field exercise.

To conduct the discussion of question 2, ask each participant in turn to name one aspect of TB case detection and treatment that is done well in his or her own health facility. List these on a blackboard or flip chart. Congratulate participants about these items.

Then ask each participant in turn to name one problem in his or her own facility and suggest one improvement that could be made. Write these on another list on the blackboard or flipchart. After all participants have had a turn, ask for any additional problems or improvements to add to the list.

If a participant specifies a problem but does not suggest an improvement, you may ask the other participants for suggestions. Help participants think of feasible improvements. Reinforce the importance of making improvements so that the recommended procedures for TB case detection and treatment are followed.

5. Concluding the module

Thank the participants for their work on the field exercise. Ask whether there are any questions and discuss them. Make any important points that you want to reinforce with these participants.

Guidelines for All Modules

Facilitator Techniques

A. Techniques for motivating participants

Encourage interaction

1. During the first day, you will talk individually with each participant several times (for example, during individual feedback). If you are friendly and helpful during these first interactions, it is likely that the participants:

will overcome their shyness,
will realize that you want to talk with them, and
will interact with you more openly and productively throughout the course.
2. Look carefully at each participant's work. Check to see whether 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 available to talk with participants as needed.

Keep participants involved in discussions

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 a simple "yes" or "no."

After asking a question, pause. Give participants time to think and volunteer 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 with a comment, a "thank you" or a definite nod. This will make the participants feel valued and encourage participation. If you think a participant has missed the point, ask for clarification, or ask whether another participant has a suggestion. If a comment is ridiculed or ignored, the participant may withdraw from the discussion entirely or not speak voluntarily again.
6. Answer participants' questions willingly, and encourage participants to ask questions when they have them rather than to hold the questions until a later time.
7. Do not feel compelled to answer every question yourself. Depending on the situation, you may turn the question back to the participant or invite other participants to

respond. You may need to discuss the question with the course director or another facilitator before answering. Be prepared to say “I don't know but I'll try to find out.”

8. 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.
9. Maintain eye contact with the participants so 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 shy participant.

Keep the session focused and lively

10. Keep your presentations lively:

Present information conversationally rather than read it.

Speak clearly. Vary the pitch and speed of your voice.

Use examples from your own experience, and ask participants for examples from their experience.

11. Write key ideas on a flipchart as they are offered. (This is a good way to acknowledge responses. The speaker will know that the idea has been heard and will appreciate 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 the participant feels you understood and recorded the idea accurately.

Do not turn your back to the group for long periods as you write.

12. At the beginning of a discussion, write the main question on the flipchart. This will help participants stay on the subject. When needed, walk to the flipchart and point to the question.

Paraphrase and summarize frequently to keep participants focused. Ask participants for clarification of statements as needed. Also, encourage other participants to ask speakers to repeat or clarify statements as needed.

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 they have gone astray and then restate the original question.

Do not allow several participants to talk at once. When this occurs, stop the talkers and assign an order for speaking. (For example, say “Let's hear Dr Samua's comment first, then Dr Salvador's, then Dr Lateau's.”) People usually will not interrupt if they know they will have a turn to talk.

Thank participants whose comments are brief and to the point.

13. Try to encourage quieter participants to talk. Ask to hear from a participant in the group who has not spoken before, or walk toward someone to encourage that person to talk.

Manage any problems

14. Some participants may talk too much. Here are some suggestions on how to handle an overly talkative participant:

Do not call on this person first after asking a question.

After a participant has gone on for some time say, “You have had an opportunity to express your views. Let’s hear what some of the other participants have to say on this point.” Then rephrase the question and invite other participants to respond, or call on someone else immediately by saying, “Dr Samua, you had your hand up a few minutes ago.”

When the participant pauses, break in quickly and ask to hear from another member of the group or ask a question of the group, such as, “What do the rest of you think about this point?”

Record the participant’s main idea on the flipchart. As the participant continues to talk about the idea, point to it on the flipchart and say, “Thank you, we have noted your idea.” Then ask the group for another idea.

Do not ask the talkative participant any more questions. If the same participant answers all the questions directed to the group, ask for an answer from another individual specifically or from a specific subgroup. (For example, ask, “Does anyone on this side of the table have an idea?”)

15. Try to identify participants who have difficulty understanding or speaking the course language. Speak slowly and distinctly so you can be more easily understood, and encourage the participant’s efforts to communicate.

Discuss with the course director any language problems that seriously impair the ability of a participant to understand the written material or the discussions. 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.)

Reinforce participants’ efforts

16. As a facilitator, you will have your own style of interacting with participants. However, a few techniques for reinforcing participants’ efforts include:

avoiding use of facial expressions or comments that could cause participants to feel uncomfortable or embarrassed,

sitting or bending down to be on the same level as participants when talking to them,

answering questions thoughtfully, rather than hurriedly,
encouraging participants to speak to you by allowing them time,
appearing interested, saying “That’s a good question/suggestion”.

17. Reinforce participants who:

try hard,
ask for an explanation of a confusing point,
do a good job on an exercise,
participate in group discussions, or
help other participants (without distracting them by talking at length about irrelevant matters).

B. Techniques for relating modules to participants’ jobs

1. Discuss the use of procedures taught in the modules in participants’ own health facilities. This will help participants begin to think about how to apply what they are learning.
2. Reinforce participants who discuss or ask questions about using the procedures in their own health facilities. Acknowledge and respond to their concerns.

C. Techniques for co-facilitators to work together

1. Spend some time with the co-facilitator when assignments are first made. Exchange information about prior teaching experiences and individual strengths, weaknesses and preferences. Agree on roles and responsibilities and how you can work together as a team.
2. Assist one another in providing individual feedback and conducting group discussions. For example, one facilitator may lead a group discussion while the other records the important ideas on the flipchart. The second facilitator could also check the *Facilitator Guide* and add any points that have been omitted.
3. Each day, review the teaching activities for the next day (such as role plays and discussions), and agree who will lead the discussion, collect the supplies, etc.
4. Work *together* on each module rather than taking turns having sole responsibility for a module.

Guidelines for All Modules

When participants are working:

Look available, interested and ready to help.

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. These are clues that the participant may need help.

Encourage participants to ask you questions whenever they need some help.

If important issues or questions arise when you are talking with an individual, make note of them to discuss later with the entire group.

If a question arises that you cannot answer adequately, obtain assistance as soon as possible from another facilitator or the course director.

Review the points in this *Facilitator Guide* so you will be prepared to discuss the next exercise with the participants.

Guidelines for All Modules

When providing individual feedback:

Before giving individual feedback, refer to the appropriate notes in this guide to remind yourself of the major points to make.

Compare the participant's answers with the answer sheet.

If the participant's answer to any exercise is incorrect or is unreasonable, ask questions to determine why the error was made. There may be many reasons for an incorrect answer. For example, a participant may not have understood the question, may have been unfamiliar with certain terms used in the exercise, may be accustomed to different procedures, may have overlooked some information about a case or may not understand a basic process being taught.

Once you have identified the reason(s) for the incorrect answer to the exercise, help the participant correct the problem. For example, you may only need to clarify the instructions. On the other hand, if the participant has difficulty understanding the process itself, you might try using a specific case example to explain. After explaining, ask questions to be sure that the participant understands.

Give the participant a copy of the answer sheet, if one is provided.

Always reinforce the participant for good work by (for example):

- commenting on how well the participant understands,
- showing enthusiasm for the participant's ideas for application of the skill in the health facility setting,
- mentioning that you enjoy discussing exercises with the participant,
- commenting that the participant's hard work is appreciated.

Guidelines for All Modules

When leading a group discussion:

Plan to conduct the group discussion at a time when you are sure that all participants will have completed the preceding work. Wait to announce this time until most participants are ready, so that others will not hurry.

Before beginning the discussion, refer to the appropriate notes in this guide to remind yourself of the purpose of the discussion and the major points to make.

Begin the group discussion by telling the participants the purpose of the discussion.

Often, 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 involve most of the group members 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 discussed in the exercise. Give participants a copy of the answer sheet, if one is provided.

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 their creative or useful suggestions for using the skills on the job,
- praising them for their ability to work together as a group.

Guidelines for All Modules

When coordinating a role play:

Before the role play, refer to the appropriate notes in this guide to remind yourself of the purpose of the role play, background information and major points to make afterwards.

At the beginning of the role play:

- review instructions for the role play.
- assign groups of three participants to do the role play together.
- give role play participants any props needed, for example, sputum containers, a drug box.
- suggest that each group of three go to a separate corner or area to work.

Observe each group quietly, and make notes of points to cover later with the entire group.

Interrupt only if the players are having tremendous difficulty or have strayed from the purpose of the role play.

When all groups have finished the role plays, conclude the exercise with a brief discussion. Discuss things done well and things that could be improved.

Ask participants to describe what they learnt from the role plays.

Schedule for the course

	Activity	Time
Day 1	Registration	0.5 hour
	Opening presentation	1 hour
	Module A: <i>Introduction</i>	1 hour
	Module B: <i>Detect Cases of TB</i>	4.5 hours
Day 2	Module C: <i>Treat TB Patients</i>	7 hours
Day 3	Module D: <i>Inform Patients about TB</i>	3.5 hours
	Module E: <i>Identify and Supervise Community TB Treatment Supporters</i>	3.5 hours
Day 4	Module F: <i>Manage Drugs and Supplies for TB</i>	2 hours
	Module J: <i>Field Exercise – Observe TB Management</i>	4 hours
	Module G: <i>Ensure Continuation of TB Treatment</i>	2 hour
Day 5	Module H: <i>Monitor TB Case Detection and Treatment</i>	4 hour
	Module I: <i>TB Infection Control in your Facility</i>	2 hours
	Closing session	1 hour

