Management of Tuberculosis
Training for District TB Coordinators

N: Facilitator Guide

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This training material has been prepared based on the WHO document: *Treatment of tuberculosis: guidelines for national programmes*, 3rd ed. 2003 (WHO/CDS/TB/2003.313) for use in tuberculosis control programmes where WHO recommendations or compatible national recommendations are implemented.

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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 District TB Coordinators who are responsible for planning, organizing, implementing, and evaluating activities of a district TB control programme. A district usually serves a population of 100 000 or more. TB control may be the District TB Coordinator's primary responsibility, or TB may be just one of several disease areas of responsibility.

Depending on the size of the district and the number of staff available, the District TB Coordinator may be one person or a team of people. If a district is large, one full-time person solely responsible for TB control services, or a team approach, may be justified. For the purposes of this course, the person (or team) responsible for TB control at the district level is called the District TB Coordinator.

The District TB Coordinator is usually a physician or a nurse and may be male or female. He or she works at the district health office and may also have clinical duties at the hospital. The job of District TB Coordinator is primarily administrative and managerial. Although the District TB Coordinator must be thoroughly familiar with clinical guidelines of the national TB control programme, he or she is primarily responsible for enabling and monitoring the implementation of these guidelines, rather than actually treating patients.

What methods of instruction are used in this course?

This course uses a variety of methods of instruction, including reading, written exercises, discussions, demonstrations, and practice of supervisory skills at a real health facility. Practice, whether in written exercises, discussions, 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). The facilitators are not lecturers, as in a traditional classroom. Their role is to answer questions, provide individual feedback on exercises, lead discussions, etc.

- The modules provide the basic information to be learned.

- The modules are designed to help each participant develop specific skills necessary for managing TB control activities at the district level. Participants develop these skills as they read the modules and practise skills in written exercises and group discussions.

- To a great extent, participants work at their own pace through the modules. In some activities, the small group will work together. Homework is not recommended.

- 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, answer questions, talk with participants about their answers to exercises, 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 arise.

    - 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 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 districts.

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.

- Observe 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 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 assign homework.

- 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 and lead 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.

After the guidelines for each module, there is a section of this *Facilitator Guide* 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.

The *Facilitator Guide* also includes a sample course schedule, which the course director will adapt to the local situation.

The last section of the *Facilitator Guide* includes pages that can be made into overhead transparencies for use with an overhead projector. If there is an overhead projector available, photocopy these pages onto clear plastic sheets to make overhead transparencies.

To prepare yourself for each module, you should:

- read the module and work the exercises,
- check your answers by referring to the answer sheets,
- 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,
- make any overhead transparencies needed,
- think about sections that participants might find difficult and questions they may ask,
- plan ways to help with difficult sections and answer possible questions,
- plan questions that will encourage participants to think about using the skills taught in their own districts.

Checklist of instructional materials needed in each small group

Item needed	Number needed
N: *Facilitator Guide*	1 for each facilitator
Set of eight modules (A–L) and answer sheets (M)	1 set for each facilitator and 1 set for each participant
Copy of course schedule	1 for each facilitator and participant
For reference as needed, a complete set of course materials for *Management of Tuberculosis: Training for Health Facility Staff* (WHO/CDS/TB/2003.314)	1 set for each small group

Checklist of supplies needed for work on modules

Supplies needed for each person include:

- name tag and/or name card for table
- 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 masking tape
- extra pencils and erasers
- flipchart pad and markers OR blackboard and chalk
- overhead projector (if possible), supplies for making overhead transparencies, and erasable markers for writing on overhead transparencies

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: *Introduction.* Participants read the module (pages 1–8).	------
4. Answer any questions about module A: *Introduction.*	------
5. Explain your role as facilitator.	------
6. Participants briefly describe their districts and their responsibilities as District TB Coordinators.	------
7. Continue immediately to module B: *Faba District.*	------

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.

Request that participants turn off mobile phones while the group is meeting.

Distribute the course schedule and point out when your group will be doing a field exercise on how to conduct a supervisory visit to a health facility.

3. Introduction of module

Distribute module A: *Introduction*. Explain that the module briefly describes the importance of tuberculosis as a public health problem. The module 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, participants can highlight important points or write notes on the pages if they wish.

Point out the annex that begins on page 9. This annex includes forms that are commonly used at the health facility level. They are presented here for reference but are not taught in this course. How to complete these forms is taught in the course *Management of Tuberculosis: Training for Health Facility Staff* (WHO/CDS/TB/2003.314).

Also point out the glossary that begins on page 15. Participants should look in the glossary when they encounter an unfamiliar term.

Point out the list of references at the end of the module. This list includes all documents referred to in the course, as well as some useful web sites.

Ask the participants to read pages 1–8 in module A: *Introduction* now. They do not need to read the annex, glossary, or list of references.

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.

Reinforce that the course is focused on management of TB at the district level. Although details of procedures may vary in some districts, the skills and information taught in the course should be applicable in most districts.

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
- lead a field exercise at a health facility.

6. Participants' responsibilities in their districts

Explain to participants that you would like to learn more about their districts and their responsibilities as District TB Coordinators. This will help you understand their situations and be a better facilitator for them. For now, you will ask participants to briefly describe their districts and their jobs. During the course you will further discuss what they do in their districts.

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

- What is the name of the district where you work, and where is it?
- What is the approximate population of the district?
- How many public health facilities are in the district?
- What are your main responsibilities as District TB Coordinator?

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 participants feel 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: *Faba District*.

Facilitator Guidelines for

B: Faba District

Procedures	Feedback
1. Distribute and introduce module B: *Faba District* and the map of the district.	------
2. Participants read the module (pages 1–6).	------
3. Introduce the *District Plan of Action for TB Control (District TB Plan).*	------
4. Continue to module C: *Conduct Supervisory Visits for TB Control.*	------

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

1. Introduction of the module and map of Faba District

Note: It will be helpful to have an overhead transparency of the map of Faba District when you introduce this module. You may prepare an overhead from the map at the beginning of the module or from Overhead H, included in the white pages at the end of this *Facilitator Guide*.

Distribute module B: *Faba District*. Use an overhead projector to show the map of Faba District. Point out that the same map is at the beginning of module B: *Faba District*. Explain that this district will be used in many of the examples and exercises throughout the training course. Participants will become very familiar with Faba District and will also encounter some of the neighbouring districts.

Faba District may be similar to or very different from the participants' own districts. The basic principles and procedures taught in the course apply to all districts, whether or not they resemble Faba District.

Using the overhead, point out the population of the district, the capital (Agraville), and the paved and dirt roads. Point out the public health facilities (hospitals, health centres, and health posts) currently providing TB control services. These are indicated by shaded boxes or circles. Two private clinics in Agraville are indicated by triangles. Point out the table below the map that indicates services provided, outpatient load, and TB cases in 2003. Keep your explanation brief and introductory; participants will refer to the map themselves many times during the course.

Explain that, for the purposes of the training course, the present year in Faba District is 2004. The past includes the year 2003 and earlier. By the end of the course, participants will help to plan for the future (2005) in Faba District.

2. Reading in the module

Ask the participants to read pages 1–6 in module B: *Faba District* now and stop reading at the stop sign. They should just enjoy the "story" and not worry about remembering everything. When Faba District is used in exercises or examples in the course, a review of the relevant information, or additional information, will be given as needed.

3. Introduction of the *District TB Plan*

Explain that pages 7–10 show a *District Plan of Action for TB Control (District TB Plan)* for the year 2004 in Faba District. The fold-out pages at the end of the module show a *Planning Chart* that goes with the plan. Ask participants to look at page 7 and notice that the plan was prepared in October 2003 by the District TB Coordinator, Dr Oke Karimi. It is an important part of the District TB Coordinator's job to develop such a plan each year (usually in October or November) for the coming year. This type of plan may be called by a different name in participants' own districts, but their plans should include similar elements.

Tell participants that they do not need to read the plan carefully now, but that they may wish to study it more closely later as they find time. They will learn how to develop a *District TB Plan* in module I: *Develop the District Plan of Action for TB Control.*

For now, simply point out the basic elements of the plan (e.g. background information, targets, activities in various categories, who will do each activity, when it should be accomplished, and resources available and needed). Explain the fold-out pages are a *Planning Chart* on which the activities from the plan are displayed month by month throughout the year. Bold dots on the *Planning Chart* show activities that can be accomplished in a day; lines show activities requiring a period of days or weeks. The dots and lines show approximately when the activities will occur; more specific deadlines may be shown in the plan itself (pages 7–10, in the "When" column).

Give one example to illustrate:

- Ask participants to look at activity A3 under "drugs and supplies" on page 8. This activity says that the District TB Coordinator will order anti-TB drugs for the district during the first week of each quarter. The ticks show that resources are available for this activity.
- Ask participants to look at the *Planning Chart*, page 11, activity A3. The dots for this activity show that it will occur during the first week of each quarter (i.e. in January, April, July, and October).

Again, there is no need to read the plan carefully now, but participants may study it later as they find time.

4. Continuing to the next module

Proceed directly to module C: *Conduct Supervisory Visits for TB Control*.

Facilitator Guidelines for

C: Conduct Supervisory Visits for TB Control

Procedures	Feedback
1. Distribute module C: *Conduct Supervisory Visits for TB Control.* Introduce the module. Show and explain the pictures and instructions that will guide participants through all the modules.	-----
2. Participants read pages 1–5 of the module. When they reach the stop sign on page 6, they turn to page 38 and write answers to the questions in Exercise A as preparation for the group discussion.	-----
3. Lead the group discussion for Exercise A.	Group discussion
4. Participants go back to page 6 and read until the stop sign on page 15. Participants do Exercise B on page 41 as individual work.	Individual feedback
5. Participants go back to page 15 and read until the stop sign on page 25. Participants do Exercise C on page 57 as individual work.	Individual feedback
6. Participants go back to page 26 and read until the stop sign on page 30. Participants do Exercise D on page 59.	Individual feedback
7. Participants go back to page 30. They read section 8 and the summary of important points (page 32). Explain to the group 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. Participants do the self-assessment questions on pages 33–34 and compare their own answers with those on page 35.	----- Self-checked
8. Conclude the module.	-----

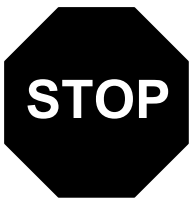
1. Introducing the module

Explain that this module describes how to conduct supervisory visits to health facilities that do TB case detection and treatment.

Review the list of objectives on page 2 of the module.

Show and explain the pictures 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, receive feedback on their work; and then go back and continue reading in the module.

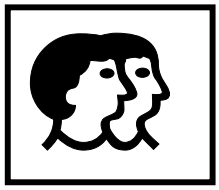
- When participants reach a **stop sign**, they should stop and follow the instructions. The instructions are usually to turn to a specified page and do the exercise. (Show page 6 as an example.) All exercises are in the back of the module.



- Every exercise asks participants to work on their own (indicated by the picture of a pencil at the top of the page). This means that each participant should work through the exercise by his or herself and write the answers in his or her own module. However, if a participant has a question about what to do, or about the module text, the participant should ask a facilitator for help without delay.

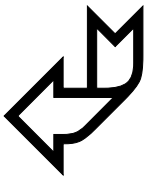
- After each exercise, participants receive feedback on their work. Feedback may be given in a group discussion or in individual feedback. Explain:

  - Where this picture appears at the top of an exercise, a facilitator will lead a **group discussion** after all participants have finished the written part of the exercise. (Ask participants to see the example on page 38 of the module.) In the discussion, participants can review their answers and benefit from hearing the thoughts of others.



  - **Otherwise, feedback is given individually. This is true for most exercises in the course.** When each participant has finished the exercise, he or she will review the answers with a facilitator. This private discussion is called individual feedback. In this discussion, the participant and the facilitator will review the participant's work and compare it with the answer sheet. This is an opportunity to talk with the facilitator one-on-one and ask any questions. If a participant has made errors, the facilitator will help clarify any misunderstanding. The purpose is to help each participant learn.

- 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 40.) Participants should follow the 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 6). They should follow the instructions given in the box at the stop sign.

2. When participants are reading

This reading assignment (pages 1–5) or later reading assignments may be difficult for some who are not accustomed to extended reading. Observe whether any participants are struggling. If a participant is visibly struggling, go to that individual and ask (quietly) whether the participant has a question or needs help. You may need to explain a form or the instructions for an exercise. 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: Written Exercise and Discussion – Assessing a schedule for supervisory visits

Individual work on written exercise

Watch as participants begin working on this first individual exercise. Be sure that they know what to do, have a pencil, etc. Some participants need a bit of encouragement to begin writing in the module book.

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

Discussion

Ask for a volunteer to tell the group the answer to question 1. If you do not agree with the answer given by the participant, ask another participant to suggest an answer. Then ask for different volunteers or ask specific participants to provide answers to each of the rest of the questions, so that all participants contribute to the discussion.

You should accept a variety of answers to questions 4, 5, and 6, as long as the participants' answers are reasonable. Emphasize the point that the schedule should allow the District TB Coordinator to visit for a reasonable period of time, not just to make a quick appearance and register the new patients.

Give each participant a copy of the answer sheet to keep.

When the discussion is finished, ask participants to go back to page 6 and read until the next stop sign (page 15). Explain that, at that point, they should turn to page 41 and do Exercise B as individual work. When they complete Exercise B, they should let a facilitator know they 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.)

Possible Answers to Exercise A

1. Five facilities are currently providing TB control services: Agraville Hospital, Bella Health Centre, Denali Health Post, Gadara Health Post, and High Road Health Post.

2. Yes, the District TB Coordinator can easily travel to these facilities. There are paved roads to all of them, and the distances are not too great (the facility that is farthest from the District office in Agraville is High Road Health Post, and it is about 46 km away).

3. Monthly visits are recommended.

4. The schedule seems feasible.

5. The District TB Coordinator may have a problem adhering to the schedule if:

   - the DMO needs to use the car on the days scheduled for the visits, or
   - the DMO cannot give up the car two days in a row, or
   - there is no money for fuel for the car, or
   - one of the supervision days falls on a holiday when health facilities are closed, or
   - he is ill or has an accident.

6. The District TB Coordinator could inform the DMO of the dates planned for supervisory visits to health facilities to oversee TB control services, so that the DMO can schedule accordingly. The District TB Coordinator could also calculate the cost of fuel each month and make arrangements so that there will be adequate funds available.

   Other approaches could be for the District TB Coordinator to:

   - get a motorcycle for making visits to health facilities,
   - borrow a car or motorcycle from someone else in the district office,
   - combine trips to some towns with the DMO or staff from other programmes, or
   - hire a car if funds are available.

4. Exercise B: Written exercise with individual feedback – Updating the District TB Register

Watch as participants begin working on this complex exercise. Be sure that they are not confused about what to do. Be sure they fold out pages 53–55 to write on as they read the exercise. Some participants may need a bit of explanation or encouragement to begin the exercise; if necessary, talk a puzzled or hesitant participant through a few steps of reviewing the first *TB Treatment Card,* Mary Otmani, F-17.

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 may 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 uncomfortable. It is essential that you build each participant's confidence that interactions with a facilitator will be helpful or pleasant. 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 him or her and look at the entries that the participant has written in the *District TB Register* (pages 53–55). Compare the participant's entries with the answer sheet. If the participant has made errors or omissions, do not simply correct them. Instead, first ask the participant to turn to the relevant *TB Treatment Card* and look again for anything that should be added to the *District TB Register*. 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 is able to do the task correctly.

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

Then ask the participant to go back to page 15 and read until the stop sign on page 25.

Answers to Exercise B

These are the entries that should be made in the *District TB Register*:

F-17, Mary Otmani: Enter the 6th month results into the *District TB Register* under "End of treatment" (30-7-04 // neg // 1399). Also, notice that this patient completed the treatment, that is, 48 doses of continuation-phase treatment. The health worker has marked the treatment outcome on the card, Cure, and dated it 4-8-04. This is correct, since the patient had a negative sputum result in the last month of treatment and on at least one previous occasion. On the *District TB Register*, the date 4-8-04 should be written in the column for "Cure."

F-63, J.D. Lo: Enter the 4th month results in the *District TB Register* (2-8-04// neg // 1213).

F-64, Rafael Lazare: Enter the 5th month results in the *District TB Register* (19-8-04 // + // 1530). Because this patient is still positive at the end of 5 months of treatment, his treatment outcome is "Treatment failure." This treatment outcome should be marked on the card and in the *District TB Register*. The patient should be informed of the situation and start on Category II treatment at the next visit. A new *TB Treatment Card* should be opened for the re-treatment. He may be re-registered now or at the next supervisory visit, noting the former District TB number, F-64, under "Remarks" and also on the new *TB Treatment Card* under "Observations." The smear examination result to record under "Before treatment" is the one dated 19-8-04.

F-84, Eva Peterson: No entry is added in the *District TB Register* today.

F-85, Tara Fleming: No entry is added today.

F-127, Felicity Kala: Enter under "Remarks" that the patient has disappeared; last seen on 6 July. No contact person was provided on the card. If the patient does not appear in the next month, she will be a defaulter.

For F-150, Olga Goizuetta: No entry is added in the *District TB Register*.

Add two new patients to the *District TB Register*, including assigning each a District TB number and copying all the information from the card into the register:

- F-172 Alberto Flores

- F-173 Zoila Aila (Note that treatment has been irregular from the start: 3 doses were missed out of 8. Try to find out why, solve a problem if possible, and motivate the patient. Also obtain the name and address of a contact person to write on the back of the card.)

You should also have written the District TB number on each new patient's *TB Treatment Card* (on pages 49 and 50).

Answers to questions on page 51 of module:

3a) Yes, F-150, Olga Goizuetta, is due for a 2-month sputum examination in the next couple of weeks.

3b) Yes, F-64, Rafael Lazare is a treatment failure, as he was still positive at the end of 5 months of treatment. Action should be taken immediately (see below).

3c) The TB Coordinator should consider Rafael Lazare a treatment failure and talk to the health staff about starting this patient on Category II treatment at his next visit. This treatment outcome should be marked on the card and in the *District TB Register*.

A patient who is a treatment failure should be re-registered and given a new District TB number. Record the former District TB number under "Remarks." (If you wrote this patient on the last page of the register, giving him the District TB number F-172 or F-174, this is correct.) "Date treatment started" should be left blank in the register until the Category II treatment is actually started. The sputum examination result to record under "Before treatment" is the one from 19-8-04.

The health facility should open a new *TB Treatment Card*; type of patient will be Treatment after failure; note the former District TB number, F-64, on the card under "Observations."

5. Exercise C: Written exercise with individual feedback – Identifying causes of performance problems

Review the participant's answers.

If the participant's answers do not seem reasonable and you think the participant has not understood the process of analysing performance problems, turn to page 25 of the module. Review *Figure 3: Analysing a performance problem* with the participant, asking the participant the questions about different causes and discussing answers, to help the participant re-analyse Situation A. This can be an important teaching session if done correctly. When you think the participant understands how to analyse a performance problem, ask the participant to work individually on Situation B again and then return to you to review the answers.

Give the participant a copy of the answer sheet to keep. Congratulate the participant on his or her work.

Then ask the participant to go back to page 26 and read until the stop sign on page 30.

Possible Answers to Exercise C

Situation A

Possible causes	Solutions
Lack of motivation: From past experience, health workers may have found that "transfers out" often do not show up at the new facility, so they do not find it worthwhile to make the contact.	Motivate health workers to make the calls by explaining the importance of every treatment outcome to overall rates in the district. If there are 40 new smear-positive cases in the district, and 6 are recorded as transfers out, then 15% have unknown outcomes. If even a few of those are cures or treatment completed, it could make a big difference in the rate of treatment success for the district. Offer a prize at a district meeting to a health facility with the fewest "transfer out" outcomes for the quarter or the year.
Obstacle: Health workers may not have time to contact other health facilities to find out the results of treatment.	One health worker at each health facility could be asked to schedule some time each week to make calls, and someone could be assigned to cover other duties during that time.
Obstacle: There may be no telephones at some health facilities, and no other way to communicate easily.	Provide telephones or mobile phones at health facilities. The District TB Coordinator could note treatment outcomes at supervisory visits to facilities that receive the transfers in the district. The District TB Coordinator could contact TB coordinators in other districts about the treatment outcome of patients who transferred to their district.

Situation B

Possible causes	Solutions
Task not assigned: No health worker has been assigned to leave the health facility during the day to make home visits.	Specifically assign the task of making home visits and inform the other staff members why the assigned health worker will sometimes leave the health facility during the day.
Lack of motivation: Travel can be difficult and uncomfortable. Even after travelling, the health worker may not find the patient or the patient may not agree to come back to treatment.	It may not be possible to change these causes. However, congratulating the health worker when he or she finds a patient who has missed treatment, and especially when the patient comes back to treatment, may help the health worker feel that the effort is worthwhile and encourage him or her to persist despite difficulties in the future.
Obstacle: Health workers do not have time to make home visits during the work day.	Hire another health worker so that one person can go and look for patients while the other stays at the health facility. Get volunteers to make house visits.
Obstacle: Health workers do not have transport or money for transport to make home visits to patients who come from far away.	Provide access to a vehicle (motorcycle, bicycle, or money for the bus) so health workers can more easily visit patients who live further away.
Obstacle: Patients may not give specific addresses/locations because they have no permanent home, because they do not wish to be found, or for other reasons.	No solution; however, health workers could be instructed to explain to patients why the address is needed, and reminded to ask for a contact person as well.

6. Exercise D: Written exercise with individual feedback – Identifying training needs

Review the participant's entries on the fold-out chart on page 61. If the entries are significantly different from those on the answer sheet, determine why. Some errors may be made because a participant did not understand that entries should be made at two different visits, on 18 December 2003 and 10 June 2004.

The specific words written on the chart do not matter as much as whether the participant understands how to use the chart:

- to track staff responsible for TB case detection and control at the health facility, for example, add new staff, write the date of the visit, and record an X for staff who leave; and
- to keep track of training needs, for example by writing the date of the visit and C (competent, no training needed) or NT (needs training) for each staff; and when any person is trained, writing RT (received training) and the date of the training.

Discuss the chart with the participant in sufficient detail so that you believe the participant could use the chart to keep track of training needs of staff in an actual health facility.

Give the participant a copy of the answer sheet to keep.

Then ask the participant to go back to page 30, read section 8, and work until the end of the module (page 36). This will include writing answers to the self-assessment questions and checking the answers.

Training Needs for TB Control

Health facility: *Bella Health Centre*

Health worker	Responsibilities for TB case detection and treatment	Date of visit or training[a]	Enter C (competent), NT (needs training), RT (received training), or X (no longer on staff). Enter comments on the right.	
Mary Lang	*TB case detection, treatment of TB patients, record keepings, drug supplies*	*18/12/03*	*NT*	*Send to Management of TB course, Feb 2004*
		Feb 2004	*RT*	*Attended Management of TB course*
		10/6/04	*C*	
AJ Perera	*Treats TB patients when busy and on Saturday*	*18/12/03*	*NT*	*Send to Management of TB course, July 2004*
		10/6/04	*X*	*Transferred to Patanga District*
Samia Shiva	*Treats TB patients when filling in for Mary Lang*	*10/6/04*	*NT*	*Send to Management of TB course, July 2004*

[a] Update on a supervisory visit every 6 months or whenever there are changes in staff who perform TB case detection and treatment. Also update when staff receive training.

7. Explanation of self-assessment questions

When you have finished giving all participants feedback on Exercise D and they are finishing the reading (pages 29–32), get the group's attention and explain the purpose of the self-assessment questions and how to do them. A possible explanation is written below. (The self-assessment questions for this module and their answers are on pages 33–35.) Every instructional module has self-assessment questions at the end.

"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 learned and what you have missed or forgotten. They are not a test in the usual sense, because you do not turn them in or receive a grade. Instead, you check your own answers against those 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 learned 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 learned and what you need to study further."

8. Concluding the module

Note: Allow participants enough time to complete the self-assessment questions at the end of each module. The self-assessment questions at the end of some modules are quicker to complete; some take more time. Observe the participants' progress, and allow enough time for all or almost all participants to finish. Avoid the temptation to rush at the end of the module. The self-assessment questions are a helpful summary and review, but they can only be effective if participants have time to complete them thoughtfully.

Ask the participants 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 very important functions of a District TB Coordinator making a visit to a health facility:

- Maintaining the *District TB Register*
- Noticing if TB patients are converting by the end of the initial phase of treatment
- Reviewing the *Register of TB Suspects* and how suspects are identified and cases are detected
- Assessing performance of health workers doing TB case detection and treatment (*Checklist for Supervisory Visits to Health Facilities*), as well as drug supplies and the environment
- Motivating staff responsible for TB case detection and treatment

- Identifying training needs of these staff (*Training Needs for TB Control*)

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

Thank the participants for participating in the group discussion and in individual feedback, a method which may not be familiar to them. Congratulate them on completing this module.

Facilitator Guidelines for

D: Provide Training for TB Control

Procedures	Feedback
1. Distribute module D: *Provide Training for TB Control*. Introduce the module.	-----
2. Participants read pages 1–11 of the module and then do Exercise A, pages 22–23.	Group discussion
3. Participants read pages 12–14 of the module and then do Exercise B, pages 24–25.	Group discussion
4. Participants read the summary of important points (page 15) 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

Emphasize the main points from the Introduction on page 1 of the module:

- It is the District TB Coordinator's responsibility to ensure that health facility staff who provide TB control services are properly trained.
- The District TB Coordinator may not always train staff, but should be able to recognize good training and arrange appropriate training experiences for staff.
- Training can be provided in many formats, but it should always include certain basic elements, such as **information**, **examples**, and active **practice** of tasks to be done on the job.
- The need for training in a district never goes away. After initial training, there is a continuing need to maintain the skills and knowledge of staff.

Explain that module D will help participants learn to recognize good training and arrange or conduct appropriate training for staff. Have available a copy of the course *Management of Tuberculosis: Training for Health Facility Staff.* Tell participants that they may want to refer to this course for health facility staff as they read and work on module D.

Ask participants to read the module to page 12 and then do Exercise A individually. After the individual written work, there will be a group discussion.

2. Exercise A: Written exercise followed by group discussion – Planning on-the-job training

Be sure that every participant does the written exercise to prepare for the discussion.

Use a flipchart or blackboard to record the group's ideas during the discussion. On one page, write the heading **Information**; on the next, **Examples**; and on the next, **Practice**.

First, briefly review the situation: The District TB Coordinator, Dr Oke Karimi, has decided to provide on-the-job training to Nurse Fonki in how to use the *Register of TB Suspects*. Since he has decided in advance of the supervisory visit, he has the opportunity to **plan** how to provide the on-the-job training. (Explain that, in some situations, such as immediately solving a problem detected during a visit, there may be no time to make a written training plan, but one should still follow the pattern of providing information, examples, and practice.)

Ask participants how they might provide **information** to Nurse Fonki about how to use the *Register of TB Suspects.* Use the answer sheet as a guide during the discussion, but recognize that participants may have other good ideas, and focus on their ideas first. If they do not eventually mention the answers given on the answer sheet, then you may mention them yourself. Focus on the **essential** information to complete the *Register of TB Suspects*.

During the discussion, stress that on-the-job training must be simple to implement and suitable for one person or a small group. A lecture or long reading in a textbook would not be appropriate for providing information during on-the-job training. A short oral explanation or a one-page written job aid would be more suitable in this setting.

Next, ask participants how they would provide **examples** to Nurse Fonki. Again, focus on participants' ideas, and then add any ideas from the answer sheet that they have not mentioned. Discuss the practicality of the ideas in the on-the-job setting. For example, in order to demonstrate making an initial entry in the *Register of TB Suspects* for a real person, it would be necessary to have a group of adults who can be asked about cough; in addition, at least one of them must have been coughing for 2 weeks or more. This real situation may not always occur during a supervisory visit, so one must be ready to simulate the experience, perhaps by making up a story.

Also discuss preparation that might be needed to implement certain ideas. For example, the District TB Coordinator should prepare and bring an example of a correctly completed page from a *Register of TB Suspects*.

Next, ask participants how they would provide **practice** for Nurse Fonki. Again, focus on participants' ideas, and then add any ideas from the answer sheet that they have not mentioned. Discuss the practicality of each idea and the preparation that would be needed. For example, if one is going to describe case studies, it is helpful to make them up in advance to make sure that you cover important situations. Stress that practice is the most important part of training because it allows the trainer to see if the learner can actually perform a task. Practice should always be followed by feedback and, if needed, the opportunity to try again.

After the group discussion, give participants a copy of the answer sheet.

Ask participants to go back to page 12 of the module and continue reading until the next stop sign.

Possible Answers to Exercise A

On-the-job training to use the Register of TB Suspects

To provide:	Use the following training methods:
Information	Explain what the *Register of TB Suspects* is. Explain the purpose of the register and why it is useful. Explain when to use the *Register of TB Suspects.* Explain who is considered a suspect. Explain how to complete each column.
Examples	Show a correctly completed page from a *Register of TB Suspects.* Demonstrate asking questions about cough and recording a suspect in the register Show several *Requests for Sputum Examination* with results recorded; demonstrate how these results would be recorded in the register.
Practice	Make up several stories of TB suspects. As you tell each story of how the suspect is asked about cough, when sputum samples are sent, what results are received, etc., have the health worker complete a row of the *Register of TB Suspects*. Play the role of a coughing patient, and have the health worker ask you about cough and record in the *Register of TB Suspects.* Show several *Requests for Sputum Examination* with results recorded; have the health worker record these results in the register. Discuss how to interpret the results.

3. Exercise B: Written exercise followed by group discussion – Solving problems due to lack of skill or knowledge

Be sure that every participant does the written exercise to prepare for the discussion.

Begin the discussion by stressing that both situations A and B involve a **lack of skill or knowledge**, so a training solution is appropriate.

Situation A

First, briefly review the situation (or ask a participant to describe it): The District TB Coordinator, Dr Elisabeth Amilami, has found that health facilities in her district send only two sputum samples for diagnosis and only one for follow-up because "this is the way it has always been done."

Use the questions given in the exercise to structure the discussion. Record ideas on the flipchart or blackboard. Discuss whether ideas are cost-effective for the situation. For example, since this is a very explicitly defined problem affecting many health workers throughout the district, it would not be cost-effective to send them all to a 5-day training course in order to solve this problem. This training can be accomplished in a short time during a meeting or during supervisory visits.

Use the answer sheet as a guide during the discussion, but recognize that participants may have other good ideas, and focus on their ideas first. If they do not eventually mention the answers given on the answer sheet, then you may mention them yourself. Discuss the practicality of each idea, given the situation, and any preparation needed.

Situation B

Briefly review the situation (or ask a participant to describe it): There has been a change in the national guidelines for managing TB. Health workers throughout the district need to know about the new drug regimen for the continuation phase, the implications for directly observed treatment, the treatment schedule, etc.

Again, use the questions given in the exercise to structure the discussion. Record ideas on the flipchart or blackboard. Discuss whether ideas are cost-effective for the situation. For example, since all health workers responsible for management of TB cases need the training, it might be more efficient to have one large training session in a central location, rather than repeat a small training session at every health facility. Participants may have different ideas about what would be most efficient in their own districts, and that is fine.

Use the answer sheet as a guide during the discussion, but recognize that participants may have other good ideas, and focus on their ideas first. If they do not eventually mention the answers given on the answer sheet, then you may mention them yourself. Discuss the practicality of each idea and any preparation needed. Stress the need for follow-up after training.

After the group discussion, give participants a copy of the answer sheet for Exercise B. Ask participants to read the summary of important points (page 15), do the self-assessment questions, and check their own answers.

Possible Answers to Exercise B

Situation A

1. Health workers lack knowledge of what is expected of them. They have not been told how many sputum samples to send.

2. Health workers at all health facilities throughout the district seem to lack this knowledge. Microscopists may also lack the knowedge of how many sputum samples are required.

3. The District TB Coordinator could provide a brief training session for the health workers responsible for TB case detection and management and representatives from the TB microscopy units.

4. A group training session could be held at a regular district meeting. Alternatively, the District TB Coordinator could inform health workers and microscopists individually during supervisory visits.

5. The training should include the following key information, examples, and practice:

   Information – Explain the number of samples needed for diagnosis and follow-up, and the reasons why they are needed. Distribute the national guidelines regarding the number of samples to be sent and explain them.

   Examples – Show samples of the *Request for Sputum Examination* form, correctly completed with results for three samples for diagnosis and two for follow-up.

   Practice – Discuss any problems that may interfere with sending and testing more samples, and how to solve these problems. Describe several cases requiring diagnosis or follow-up, and ask questions to ensure that everyone understands the number of samples required.

Note: It will be important to follow up during supervisory visits after the training to ensure that health workers are sending the correct number of samples.

Situation B

1. Health workers lack knowledge of the new national guidelines (the new drug regimen and how it affects the treatment schedule). They lack knowledge of what old practices to stop, what new practices to begin, and when the changes will take effect.

2. All health workers responsible for management of TB cases in the district lack this knowledge.

3. A training session (perhaps one day or a half day) would be appropriate for all health workers responsible for management of TB cases in the district.

4. The training should be held at a central location in the district.

Note: If there are many health facilities, or if they are widely spread, more than one training session, held in different locations, may be required.

5. The training should include the following key information, examples, and practice:

   Information – Explain and give a **written summary** of the new Category I regimen for the continuation phase. Explain reasons for the change and implications of the change (e.g. treatment must be directly observed 3 times a week for 4 months). Explain the importance of directly observing treatment with rifampicin (to be alert for side-effects). Provide written changes in the national guidelines to be posted in every health facility. Describe when the new guidelines will take effect and what to do about patients who are already in the continuation phase of treatment at that point.

   Examples – Show the new drugs and packaging and a drug kit including the new regimen. Show a sample *TB Treatment Card* for a patient who has completed the new regimen.

   Practice – Given a case study, health workers practice completing *TB Treatment Cards* for a patient on the new regimen. Role play explaining to a patient the need to come 3 times a week for directly observed treatment.

Note: It is very important to follow-up after this training. Besides training, the District TB Coordinator will need to order and distribute the new drugs. Careful supervision will be needed during the first months of implementation of the new guidelines.

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.

Facilitator Guidelines for

E: Manage Drugs and Supplies for TB Control

Procedures	Feedback
1. Prepare to conduct module E: *Manage Drugs and Supplies for TB Control.*	-----
2. Distribute module E: *Manage Drugs and Supplies for TB Control*. Introduce the module.	-----
3. Participants read pages 1–12. When they reach the stop sign on page 12, participants turn to page 32. Participants do Exercise A as individual work.	Individual feedback
4. Participants go back to page 12, section 1.3, and read until the stop sign on page 18. Participants do Exercise B on page 35 as individual work.	Individual feedback
5. Participants go back to page 18, section 4, to continue reading. They work to the end of the module (page 29), including doing the self-assessment questions.	Self-checked
6. Conclude the module.	-----

If participants will use annexes on ordering and distributing separate tablets

Alternative procedures	Feedback
3. Participants read from page 1 up to the box on page 3. They turn to Annex C, page 42, and continue reading to the stop sign on page 49. Participants do Alternative Exercise A on page 50 as individual work.	Individual feedback (see page E-9 of these guidelines)
4. Participants go back to page 12, section 1.3, and continue reading to the box on page 18. They turn to Annex D, page 54. They read to the stop sign on page 56 and then do Alternative Exercise B on page 57.	Individual feedback (see page E-12 of these guidelines)
5. Participants go back to page 18, section 4, to continue reading. They work to the end of the module (page 29), including doing the self-assessment questions.	Self-checked
6. Conclude the module.	-----

1. Prepare to conduct the module

How this module is set up

There are two main ways that District TB Coordinators may manage supplies of anti-TB drugs. They may count, order and distribute anti-TB drugs as either:

- kits (standard regimens pre-packaged as a complete treatment for one patient) or
- quantities of separate anti-TB drugs.

This module is written primarily for a District TB Coordinator who manages supplies of anti-TB drugs in kits.

The module also includes annexes that provide alternative text, worksheets and exercises for District TB Coordinators who must manage anti-TB drugs as quantities of separate tablets of oral anti-TB drugs, instead of ordering pre-packaged kits.

At two specific places in the module, participants are directed to either continue reading the module, or to turn to an annex that presents the alternative version of the text and an exercise. For example, the box below appears on page 3:

> → If you will order anti-TB drugs in **pre-packaged kits**, continue reading below.
>
> → If you will order quantities of **separate tablets** of oral anti-TB drugs, turn to Annex C, page 42, and read the alternative version of sections 1.1 and 1.2. Then complete Alternative Exercise A.

The alternative text assumes that the country will use fixed-dose combination tablets (FDCs), which are recommended by WHO. If FDCs are not available, District TB Coordinators can use the same procedures to calculate quantities of each of the different tablets required, but will need to adapt the worksheet to include calculations for each of the different drugs and strengths of tablets.[1]

Determine how you will conduct the module

Find out by asking the course director or the participants in your group (before the day you will do this module) how they receive anti-TB drugs, that is, whether they receive them as pre-packaged kits or as separate tablets. Based on their answer, plan how you will conduct the module. You must have clear in your mind what pages

[1] In this situation, a District TB Coordinator will need to calculate separately the quantity of each type of tablet needed for each category of treatment. Category I and III may require 6 different types of tablets, and Category II may require 6 different types of tablets plus streptomycin. Refer to WHO-recommended formulations of essential anti-TB drugs in *Treatment of tuberculosis, guidelines for national programmes*, 3rd ed. Geneva, World Health Organization, 2003 (WHO/CDS/TB/2003.313).

participants will do and what pages they will skip, so that you can prevent or remedy any confusion.

If participants will manage anti-TB drugs in kits, they will:

- read pages 1–29 and do Exercises A and B on pages 32–36 when directed, as in any other module. They will not have any need to read Annexes C, D, or E (pages 42–62).

If participants will manage supplies of anti-TB drugs as separate tablets, they will:

- read pages 1–3 down to the box.
- turn to Annex C, page 42, read the alternative version of sections 1.1 and 1.2, and complete Alternative Exercise A (also located in Annex C).
- turn back to page 12, section 1.3, and read to the box on page 18.
- turn to Annex D, page 54, read the alternative version of sections 3.1–3.3, and complete Alternative Exercise B (located in Annex D).
- turn back to page 18, section 4, and read through the end of the module on page 29.

(Note: They will **not read** pages that apply to ordering and distributing kits, bottom of page 3 – box on page 12, page 16 – box on page 18, and Annex B.)

Need for calculators

Participants will need to use calculators to complete the mathematical functions (addition and multiplication) in the worksheets. Find out whether the course director will provide calculators for the participants or whether participants should bring their own. You will need to let participants know in advance if they need to bring calculators.

2. Introduce the module

Explain that this module describes how to manage drugs and other supplies for TB control, such as sputum containers, forms, and registers. Usually, managing supplies for microscopy units, such as slides and reagents, is the responsibility of the laboratory supervisor, so those supplies are not covered in this module.

Review the list of objectives on page 2.

Explain that the module is written for District TB Coordinators who are in one of two situations:

- The District TB Coordinator manages anti-TB drugs in kits, that is, anti-TB drugs are counted, ordered, and distributed in pre-packaged kits.

- The District TB Coordinator manages supplies of anti-TB drugs as quantities of separate tablets of oral anti-TB drugs, instead of pre-packaged kits, for example, quantities of (HRZE) tablets, (HR) tablets, and E tablets. These may be loose tablets or blister packs of tablets, FDCs or separate drugs.

The participants will **read the text and do the exercises that apply only to their situation**.

Then, based on what you know about the participants' situation, explain which path they will take through the module.

Ask participants to begin reading in the module, beginning at page 1, following the instructions in the box on page 3 to either continue reading below or to turn to Annex C on page 42, and reading until they reach the first stop sign. They should follow the instructions given in the box at the stop sign.

3. Exercise A: Written exercise with individual feedback – Calculating quantities of anti-TB drugs to order for the district

When a participant comes to you for feedback, sit down with the participant and look first at the tally sheet completed in the exercise (page 33). Compare it with the answer sheet. (If the participant has different totals, determine why. There may be simple errors in addition, or the participant may have used the wrong quarter in the *District TB Register*. If necessary, have the participant find the 2nd quarter 2004 in module K and redo the tally sheet. Ask the participant to correct the tally sheet and then redo the *Ordering Worksheet* on page 34, using the correct numbers.)

Then check the *Ordering Worksheet* by comparing it with the answer sheet and asking the participant about the steps in the worksheet to determine whether the participant understands the steps performed. If the participant has questions, answer them. Try to find out the reason for any misunderstandings and clarify. At the end of the interaction, you should feel that the participant is able to use the worksheet correctly.

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

Then ask the participant to go back to page 12 and read to the stop sign on page 18.

Answers to Exercise A

2.

Faba District TB cases in 2nd quarter 2004

Health Facility	Category I	Category II	Category III
A. Agraville Hospital	*22*	*3*	*11*
B. Bella Health Centre	*12*	*2*	*4*
D. Denali Health Post	*3*		
G. Gadara Health Post	*3*		
H. High Road Health Post	*3*		
TOTAL	*43*	*5*	*15*

3.

***Ordering Worksheet*: Pre-packaged kits of anti-TB drugs to order to treat adult patients in the district during one quarter**

Category I + Category III: 2(HRZE) / 4(HR)$_3$: *58* **patients**

Category II: 2(HRZE)S / 1(HRZE) /5(HR)$_3$E$_3$: *5* **patients**

Instructions: Complete one worksheet for the district.

- Fill in the number of kits needed for the expected patients in each category in column A. Then complete the calculations in column B.
- Determine the current stock at the district from records and fill in column C.
- Complete the calculations in column D.

Kit (or drug) and category of patient who needs it[a]	A Kits needed to treat expected patients	B Multiply by 2 for reserve stock A x 2 = B	C Estimated stock on last day of previous quarter	D Number to order after subtracting current stocks B – C = D
Category I and III kits	*58*	*116*	*50*	*66 kits*
Category II kits	*5*	*10*	*6*	*4 kits*

[a] Depending on the policies and procedures of the national TB control programme, you may need to add one or more of the following to the district order: other presentations of anti-TB drugs for treatment of children; additional tablets of anti-TB drugs for special cases such as loose tablets of individual anti-TB drugs, drugs for Category IV cases, isoniazid for preventive therapy for children and for PLWHA; and co-trimoxazole and ART drugs for TB/HIV patients. If injection supplies are not provided in the Category II kit, add injection supplies to the order.

4. Exercise B: Written exercise with individual feedback – Calculating quantities of anti-TB drugs to distribute to each health facility for the quarter

Review the participant's worksheet on page 36. Make sure that the participant has done this calculation for one facility only, the Agraville Hospital, and not for the entire district, as in the *Ordering Worksheet* in Exercise A. If the participant has used the numbers of cases in the entire district, instead of just cases in Agraville Hospital, ask the participant to redo the *Distribution Worksheet* to calculate quantities to send to Agraville Hospital.

Point out that this worksheet would be completed once for each health facility to be supplied with anti-TB drugs.

Give the participant a copy of the answer sheet to keep. Congratulate the participant on his or her work.

Then ask the participant to go back to page 18 and read and work to the end of the module (page 29). This will include writing answers to the self-assessment questions and checking the answers.

Answers to Exercise B

***Distribution Worksheet*: Kits of anti-TB drugs to distribute to a health facility to treat adult patients during one quarter**

Agraville Hospital
(name of health facility)

Category I + Category III: 2(HRZE) / 4(HR)$_3$: *33* **patients**

Category II: 2(HRZE)S / 1(HRZE) /5(HR)$_3$E$_3$: *3* **patients**

Instructions: Complete a separate worksheet for each health facility.

- Fill in the number of kits needed for the expected patients in each category in column A. Then complete the calculations in column B.
- Estimate the stock remaining at the health facility from records and fill in column C.
- Complete the calculations in column D.

Kit (or drug) and category of patient who needs it	**A** **Kits needed to treat expected patients**	**B** **Multiply by 2 for reserve stock** **A x 2 = B**	**C** **Estimated stock on last day of previous quarter**	**D** **Number to distribute after subtracting current stocks** **B - C = D**
Category I and III kits	*33*	*66*	*21*	*45*
Category II kits	*3*	*6*	*5*	*1*

5. Self-assessment questions (self-checked)

6. 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.

Point out that there are blank worksheets in Annex B that participants can photocopy and use:

- for ordering anti-TB drug kits for the district, and
- for calculating numbers of kits to distribute to each health facility in the district.

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

Congratulate the participants on completing this module.

Alternative facilitator guidelines if participants will use annexes on ordering and distributing separate tablets

3. Alternative Exercise A: Written exercise with individual feedback – Calculating quantities of separate tablets of anti-TB drugs to order for the district

Note: *On page 50, participants read this paragraph as background information for Exercise A:*

> *"In Faba District, anti-TB drugs are provided to health facilities in separate boxes of (HRZE), (HR), and ethambutol, and boxes of vials of streptomycin. The tablets are packaged in blisters of 28 or 12 each. Patient kits are assembled by staff at health facilities for each patient at the time the patient begins treatment."*

This paragraph contradicts the information given in module B: Faba District, which says that in Faba District, anti-TB drugs are provided to health facilities in pre-packaged kits. If any participant asks about this contradiction, explain that this was changed for purposes of Alternative Exercises A and B, so participants can practice using the worksheets to calculate quantities of separate tablets to order and distribute to health facilities.

When a participant comes to you for feedback, sit down with the participant and look first at the tally sheet completed in the exercise (page 51). Compare it with the answer sheet. (If the participant has different totals, determine why. There may be simple errors in addition or it may be that the participant has used the incorrect quarter in the *District TB Register*. If necessary, have the participant find the 2nd quarter 2004 in module K and redo the tally sheet. Ask the participant to correct the tally sheet and then redo the *Ordering Worksheet* on page 52, using the correct numbers.)

Then check the *Ordering Worksheet* by comparing it with the answer sheet and asking the participant about the steps in the worksheet to determine whether the participant understands the steps performed. If the participant has questions, answer them. Try to find out the reason for any misunderstandings and clarify. At the end of the interaction, you should feel that the participant would be able to use the worksheet correctly.

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

Then ask the participant to go back to page 12, section 1.3, and read to the box on page 18. Then turn to Annex D, page 54, and read. Then do Alternative Exercise B.

Answers to Alternative Exercise A

2.

Faba District TB cases in 2nd quarter 2004

Health Facility	Category I	Category II	Category III
A. Agraville Hospital	*22*	*3*	*11*
B. Bella Health Centre	*12*	*2*	*4*
D. Denali Health Post	*3*		
G. Gadara Health Post	*3*		
H. High Road Health Post	*3*		
TOTAL	*43*	*5*	*15*

3.

Ordering Worksheet: Separate tablets of anti-TB drugs to treat adult patients in the district during one quarter

***Daily* treatment in the initial phase (28 doses per month) and intermittent treatment in the continuation phase (12 doses per month)**

Category I + Category III: 2(HRZE) / 4(HR)$_3$: *58* **patients**

Category II: 2(HRZE)S / 1(HRZE) /5(HR)$_3$E$_3$: *5* **patients**

Instructions: Complete one worksheet for the district.

- Fill in the expected number of patients in each category in column A and multiply by the number of tablets or vials needed per patient as shown in the formula. Then complete the calculations in columns A and B.
- Determine the current stock at the district from records and fill in column C.
- Complete the calculations in column D.

Drug and category of patient who needs it[a]	**A** **Tablets and vials needed to treat expected patients**	**B** **Multiply by 2 for reserve stock A x 2 = B**	**C** **Estimated stock on last day of previous quarter**	**D** **Amounts to order after subtracting current stocks B - C = D**
Combination (HRZE) (Cat I + III) + (Cat II)	(*58* x 168 tablets) + (*5* x 252 tablets) = *11 004* tablets	*22 008*	*9 900*	*12 108* tablets
Combination (HR) (H150 R150 mg) (Cat I + III) + (Cat II)	(*58* x 144 tablets) + (*5* x 180 tablets) = *9 252* tablets	*18 504*	*8 300*	*10 204* tablets
Ethambutol (Cat II)	*5* x 240 tablets = *1 200* tablets	*2 400*	*1 100*	*1 300* tablets
Streptomycin (1 g vial) (Cat II)	*5* x 56 vials = *280* vials	*560*	*320*	*240* vials

[a] Depending on the policies and procedures of the national TB control programme, you may need to add one or more of the following to the district order: other presentations of anti-TB drugs for treatment of children; additional tablets of anti-TB drugs for special cases such as loose tablets of individual anti-TB drugs, drugs for Category IV cases, isoniazid for preventive therapy for children and for PLWHA; and co-trimoxazole and ART drugs for TB/HIV patients. Supplies for giving streptomycin injections may also be added to the order.

4. Alternative Exercise B: Written exercise with individual feedback – Calculating quantities of anti-TB drugs to distribute to each health facility for the quarter

Review the participant's worksheet. Make sure that the participant has done this calculation for one facility only, the Agraville Hospital, and not for the entire district, as was done in the *Ordering Worksheet* in Exercise A. If the participant has used the numbers of cases in the entire district, instead of just cases in Agraville Hospital, ask the participant to redo the *Distribution Worksheet* to calculate quantities to distribute to Agraville Hospital.

Point out that this worksheet would be completed once for each health facility to be supplied with anti-TB drugs.

Give the participant a copy of the answer sheet to keep. Congratulate the participant on his or her work.

Then ask the participant to go back to page 18, section 4, and read and work to the end of the module (page 29). This will include writing answers to the self-assessment questions and checking the answers.

Answers to Alternative Exercise B

Distribution Worksheet: Separate tablets of anti-TB drugs to distribute to a health facility to treat adult patients during one quarter

Agraville Hospital
(name of health facility)

Daily treatment in the initial phase (28 doses per month) and Intermittent treatment in the continuation phase (12 doses per month)

Category I + Category III: 2(HRZE) / 4(HR)$_3$: *33* **patients**

Category II: 2(HRZE)S / 1(HRZE) /5(HR)$_3$E$_3$: *3* **patients**

Instructions: Complete a separate worksheet for each health facility.

- Fill in the expected number of patients in each category in column A and multiply by the number of tablets or vials needed per patient as shown in the formula. Then complete the calculations in columns A and B.
- Estimate the stock remaining at the health facility from records and fill in column C.
- Complete the calculations in column D.

Drug and category of patient who needs it	**A** **Tablets and vials needed to treat expected patients**	**B** **Multiply by 2 for reserve stock A x 2 = B**	**C** **Estimated stock on last day of previous Quarter**	**D** **Amounts to distribute after subtracting current stocks B - C = D**
Combination (HRZE) (Cat I + III) + (Cat II)	(*33* x 168 tablets) + (*3* x 252 tablets) = *6 300* tablets	*12 600*	*4 800*	*7 800 tablets*
Combination (H150 R150 mg) (Cat I + III) + (Cat II)	(*33* x 144 tablets) + (*3* x 180 tablets) = *5 292* tablets	*10 584*	*3 900*	*6 684 tablets*
Ethambutol (Cat II)	*3* x 240 tablets = *720* tablets	*1 440*	*1 200*	*240 tablets*
Streptomycin (1 g vial) (Cat II)	*3* x 56 vials = *168* vials	*336*	*275*	*61 vials*

5. Participants turn back to page 18 and read to the end of the module

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.

Point out that there are blank worksheets in Annex E that participants who manage quantities of separate tablets of anti-TB drugs can photocopy and use:

- for ordering anti-TB drugs for the district, and
- for calculating quantities to distribute to each health facility in the district.

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

Congratulate the participants on completing this module.

Facilitator Guidelines for

F: Ensure Laboratory Support for TB Control

Procedures	Feedback
1. Distribute module F: *Ensure Laboratory Support for TB Control* and module L: *Tuberculosis Laboratory Register.* Introduce the module.	-----
2. Participants read pages 1–4. When they reach the stop sign on page 4, they turn to page 24 and do Exercise A.	Individual feedback
3. Participants go back to page 4 and read until the stop sign on page 7. Participants do Exercise B on pages 25–26 as individual work.	Individual feedback
4. Participants go back to page 8 and read until the stop sign on page 11. Participants do Exercise C on pages 27–34 as individual work.	Individual feedback
5. Participants go back to page 12 and work to the end of the module (page 22) including doing the self-assessment questions.	Self-checked
6. Conclude the module.	-----

1. Introducing the module

Explain that this module describes how to ensure laboratory support for TB control services. That means ensuring that all health facilities are able to have sputum samples examined by microscopy for TB case detection (diagnosis) and for monitoring TB treatment (follow-up).

Review the list of objectives on page 2 of the module.

Mention that participants will use module L: *Tuberculosis Laboratory Register* in an exercise.

Ask participants to read in the module, from page 1 until the first stop sign (on page 4). They should follow the instructions given in the box at the stop sign.

2. Exercise A: Written Exercise with individual feedback – Assessing access to TB microscopy units

Review the participant's answers and compare them with the answer sheet. If there are significant differences, look at the map of Faba District with the participant. Ask the participant to explain his or her thinking and discuss until you can agree on a reasonable answer. If the participant has questions, answer them.

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

Then ask the participant to go back to page 4 and read until the stop sign on page 7.

Answers to Exercise A

1. Sputum smear microscopy is performed at the TB microscopy unit at Agraville Hospital.

2. Factors to consider:
   - Distance from the health facility to the TB microscopy unit.
   - Transportation of sputum samples to the TB microscopy unit must be regular and reliable.
   - Transportation of results to the health facility must be regular and reliable.

3. The approximate distance of each health facility that provides TB services from the microscopy unit at Agraville Hospital is:

   Bella Health Centre = 24 km on paved road
   Denali Health Post = 36 km on paved road
   Gadara Health Post = 15 km on paved road
   High Road Health Post = 48 km on paved road

   Therefore, each of these health facilities is within a reasonable distance of the TB microscopy unit on a paved road. However, we do not know whether there is regular and reliable transportation.

4. It might be difficult for Emeral Health Post to send sputum samples on a regular basis. From Agraville Hospital to Emeral Health Post = 50 km on paved road plus 12 km on dirt = 62 km. The dirt road may at times be rough, wet, or impassible.

3. Exercise B: Written exercise with individual feedback – Assessing the need to increase the capacity of the TB laboratory services

When a participant comes to you for feedback, review the participant's answers to each question. Refer to the answer sheet as needed.

Questions 3d) and e) may have a variety of answers, as long as the participants' answers are reasonable. During your discussion of 3d), refer to the highlights of the plan for 2004 on page 5 of module B: *Faba District* if needed.

Tell the participant that the need to increase TB laboratory capacity and what will be added to increase capacity goes into the District TB Plan for 2005. Module I: *Develop the District Plan of Action for TB Control* will teach more about making the plan.

Give the participant a copy of the answer sheet to keep. Ask the participant to go back to page 8 and read until the next stop sign (page 11).

Answers to Exercise B

2.

a) How many workdays are in a quarter? 66

b)

$$\frac{\text{1 960 smear examinations performed}}{\text{66 workdays}} = \text{30 examinations per day by the microscopist}$$

3.

a) The maximum recommended number of sputum examinations per microscopist per day is 20.

b) The minimum recommended number per day is 2–3.

c) The workload at the Agraville Hospital microscopy unit averages 30 sputum smears per day, which exceeds the recommended maximum.

d) The TB microscopy workload is likely to increase later in 2004 and 2005 as case detection efforts increase. During 2004 more staff are being trained to question adults about cough, and supplies of sputum containers are increasing. Private clinics may also start referring persons who cough.

e) Possible ways to improve the capacity of the TB laboratory services include:

- adding another microscopist at the Agraville Hospital microscopy unit (increasing capacity to 40 sputum smear examinations per day), and
- adding a second microscope and a third microscopist at the Agraville Hospital microscopy unit (increasing capacity to 60 sputum examinations per day), or
- making an additional TB microscopy unit at a health centre (adding a microscope and microscopist at a health centre).

4. Exercise C: Written exercise with individual feedback – Confirming registration of all smear-positive cases in the *District TB Register*

This is a long exercise (most groups take approximately 2 hours). Allow plenty of time so that participants will not be rushed.

When participants are beginning to work on this exercise, be sure that they understand what to do and the correct materials to use:

- module L: *Tuberculosis Laboratory Register* and
- pages from the *District TB Register* presented in module F on pages 30–34.

Note: Participants should **not** use module K: *District Tuberculosis Register* for this exercise, because that module shows the district register as it appears at a **later** point in time, and the exercise will not work.

Watch participants as they start to work, and check over their shoulders that they are proceeding correctly. (It is very frustrating to participants to spend a lot of time doing the wrong thing, so help to prevent that!) If you see a participant making any of the errors listed below, speak with them individually to point out the error so that they may continue correctly:

- A common error is starting from the *District TB Register* instead of the *Tuberculosis Laboratory Register*. Remind participants that the *Tuberculosis Laboratory Register* is the original source of data.
- Check that participants have begun reviewing in the *Tuberculosis Laboratory Register* at the correct place. They should **not review** the most recent month's entries (4 June – 8 July) but should begin reviewing at 3 June and work backwards.
- They do not need to confirm registration of follow-up cases. They are confirming registration of cases that had positive results for diagnosis only.
- They should stop reviewing when they reach cases that were previously confirmed (stop at number 836).

When a participant comes to you for feedback, quickly check two things which will indicate whether the participant has done the exercise correctly:

- On page 29, has the participant corrected the sputum results for F-117 and F-125?
- On page 32, has the participant added two patients?

If so, you can be reasonably sure that the participant has done the exercise correctly.

Look at the participant's copy of module L: *Tuberculosis Laboratory Register*. Ask the participant to show you the pages reviewed (which should include 3 June and earlier). Refer to the answer sheet and look page by page in the laboratory register to check whether the participant has placed a tick next to each smear-positive case who was already registered or who the participant added to the *District TB Register*.

If you realize that the participant has made many errors, try to find out why (before reviewing the entire exercise). If the participant was confused about what to do or how to do it, give help and explanation until the participant understands what to do. Then ask the participant to redo the exercise and return to you when finished.

If the participant has made only a few errors, he or she can correct these as you review the exercise together.

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

Then ask the participant to go back to page 12 and work until the end of the module (page 22). This will include writing answers to the self-assessment questions and checking the answers.

Answers to Exercise C

In the *Tuberculosis Laboratory Register*, a tick should be written next to the following laboratory serial numbers to indicate that these smear-positive cases have been registered in the *District TB Register:*

1010 Tee Woo
988 Felicity Kala
973 Rashid Jamu. This patient's results were incorrectly entered into the *District TB Register*; the correct entry would be ++. The entry should be corrected in the *District TB Register* (F-125).
971 Ahmed Mokandu
962 Than Van Tra
960 Zora Riat. This patient's results were incorrectly entered into the *District TB Register*; the correct entry would be ++. The entry should be corrected in the *District TB Register* (F-117).

(956 Sam Mapasu should not be registered because he does not meet the criteria for a smear-positive case. However, you should make a note to check that he continued the diagnostic process and was assessed by a clinician.)

950 Eduardo Lazar
946 Cecil Trang – was not registered, so should be added to the *District TB Register*
938 Grace Madu
934 Lucy Wana
928 Obed Sayam – was not registered, so should be added to the *District TB Register*
915 Karina Elo
896 Ayo Nakobi
895 Okul Curanda
883 Imran Shah
875 Ella Wana
871 Andrew Grand
863 Vincent Dondero
861 Rachel Meza
853 Mano Tam

On the previous visit, a line was drawn below the last entry made on 6/5. The smear-positive case detected before that, laboratory serial number 824, Ari Torres, has a tick beside it, indicating that he was previously confirmed to be registered. This means that is not necessary to review entries before this point.

Two cases should have been added to the *District TB Register*, that is, added on page 32 of the module (not on page 30): Cecil Trang and Obed Sayam as F-139 and F-140.

Corrections should be made in the sputum examination results recorded in the *District TB Register* (page 29) for the following TB patients:
F-117: change to ++
F-125: change to ++

3. Make a note to:

   - Check on Cecil Trang and Obed Sayam at Agraville Hospital to determine whether they have been found and have started treatment.

     (Since you, Dr Karimi, are still at the Agraville Hospital, go now to ask the health worker about these patients. Perhaps the health worker did not include their *TB Treatment Cards* with the others for some reason. If you find that they have not started treatment, urge the health worker to look for them.)

   - Check on Sam Mapasu during the next visit to High Road Health Post to determine whether he was referred to a clinician for assessment, and the result of that assessment.

   You may also check:

   - at Agraville Hospital, why Zora Riat (F-117) had an incorrect sputum result in the *District TB Register*. It may have been an error of transcription in the laboratory report sent back to the health facility (*Request for Sputum Examination* form), on the *TB Treatment Card*, or only in the *District TB Register*.

   - at Bella Health Centre, why there was an incorrect sputum result in the *District TB Register* for Rashid Jamu (F-125)

4. You will check whether smear-positive TB cases detected by the microscopy unit on 5 and 6 July are registered in the *District TB Register* on your **next** visit to the microscopy unit (about 8 August). By that time, those patients should have started treatment and you will be able to register them from their *TB Treatment Cards*.

5. Self-assessment questions (self-checked)

6. Concluding the module

Ask the participants 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 how to ensure TB laboratory support. Health facilities must have access to a TB microscopy unit. The microscopy workload must be distributed among microscopy units in the district so that no unit does too few or too many sputum examinations each day. A microscopy unit must have trained staff and adequate equipment and supplies.

Reviewing the *Tuberculosis Laboratory Register* and comparing it with the *District TB Register* provides an opportunity to identify smear-positive TB cases who are not yet registered and receiving treatment. If you identify any such cases, you should make sure that the health facility is aware of the case and looks for the TB patient, thereby reducing the chance that this case will be lost. In some countries, up to 5% of cases are lost in this way, so this is an important problem to solve.

Accurate transcription of sputum examination results by the laboratory to a *Request for Sputum Examination* form, then by a health worker to a *TB Treatment Card*, and then by the District TB Coordinator into the *District TB Register* is very important. If data in the *District TB Register* are inaccurate, then provincial and national data will be wrong also. The District TB Coordinator has the responsibility to check and ensure that data are correct at the district level.

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

Thank the participants for their persistence in completing the exercises. Congratulate them on completing this module.

Facilitator Guidelines for

G: Monitor and Evaluate TB Control

Procedures	Feedback
1. Distribute module G: *Monitor and Evaluate TB Control* and module K: *District Tuberculosis Register*. Introduce the modules.	-----
2. Participants read until the stop sign on page 3 of the module and then prepare for Exercise A as instructed on pages 46–47.	Group discussion
3. Participants read pages 3–11 of the module. Explanation to the group: Completing the *Quarterly Report on TB Case Registration*	-----
4. Participants do written Exercise B, pages 48–51.	Individual
5. Participants read pages 13–17 of the module and then do Exercise C, pages 52–55.	Individual
6. Participants read pages 19–23 and do Exercise D, pages 56–60.	Individual
7. Participants read pages 25–29 of the module and then do Exercise E, which begins on page 61. Participants may ask for feedback after Part I of the exercise or may continue working through Part II and receive feedback at the end of the exercise.	Individual
8. Participants read pages 30–33 of the module and do written Exercise F, pages 65–68, in preparation for a group discussion.	Group discussion
9. Participants read pages 34–38 and do written Exercise G, pages 69–70.	Individual
10. Participants read the summary of important points (pages 39–40) and do the self-assessment questions. Participants check their own answers against those provided in the module. Note: Participants who finish early may do Optional Exercise H and check their own work.	Self-checked
11. Conclude the module.	-----

1. Introducing the modules

Distribute module G: *Monitor and Evaluate TB Control* and module K: *District Tuberculosis Register*. Explain that module K includes *District TB Register* pages from three quarters in Faba District. Participants will use module K extensively when doing exercises related to monitoring and evaluation in module G.

Ask participants what they understand the word "monitor" to mean. They will probably associate monitoring with keeping records, completing reports, 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 new smear-positive TB cases having sputum conversion, or a high number of defaulters in the district. If you find problems, you can investigate the causes, and work towards solving them.

Differentiate between ongoing monitoring of a district TB control programme and annual evaluation:

- A district TB Coordinator should **continually** monitor implementation of the *District TB Plan* to determine whether activities are being completed as planned.

- On a **quarterly** basis, monitoring involves completing several *Quarterly Reports* and calculating and analysing district-level indicators related to case detection, quality of diagnosis, and TB treatment.

- **Annual** evaluation involves reviewing the year's efforts and results, comparing actual achievements with targets, assessing the quality and extent of current TB control services, identifying causes of problems and reasons for success, and determining required and available resources. Evaluation is the basis for planning.

Since monitoring and evaluation provide information that is important as a basis for planning, this course presents module G: *Monitor and Evaluate TB Control* before module I: *Develop the district Plan of Action for TB Control.* Module I will show how results of monitoring and evaluation are used to develop a plan.

Comment that the *Quarterly Reports* presented in this module should be basically similar to those used in the participants' districts. However, there may be some differences, as the *Quarterly Reports* have recently been revised by WHO. Districts should use the reporting forms required by their national TB control programme.

Ask participants to read in the module until the stop sign on page 3 and then prepare for the group discussion as instructed in Exercise A, pages 46–47.

2. Exercise A: Written exercise followed by group discussion – Monitoring implementation of activities

After participants have written brief answers in their modules, lead a group discussion related to each situation in Faba District.

Situation 1

Remind participants that, according to the Faba *District TB Plan* for 2004, staff at all of the health facilities providing TB control services were to be trained in March in use of the *Register of TB Suspects*, and they were to begin using it on 1 April 2004.

Ask a participant to summarize the situation at High Road Health Post when Dr Karimi visits in the 3rd week of April. Then, ask several participants in turn what they think should be done immediately (during the visit) and what should be done later. Finally, ask participants whether plans for the district may need to be revised and, if so, how.

Use the possible answers given on the next page as a guide, and mention those answers if participants do not. Stress the importance of monitoring to find problems and solve them, as opposed to just ignoring them.

Situation 2

Remind participants that the Faba *District TB Plan* for 2004 includes a number of activities that should increase the number of sputum samples being received by the Agraville Hospital laboratory. For example, staff at Bella Health Centre and three health posts were to be trained to ask about cough to identify TB suspects in March. More sputum containers were to be ordered and sent to the facilities.

Note that Dr Karimi finds this problem, not on a supervisory visit to Bella Health Centre, but while staying in Agraville and reviewing the number of sputum samples received by the hospital laboratory. There are many ways to monitor and find problems.

Having found a problem, Dr Karimi must **investigate the cause**. Ask a participant to describe the cause that is found. Then, ask several participants in turn what they think should be done immediately, and what should be done later. Finally, ask participants whether plans for the district may need to be revised and, if so, how.

Use the possible answers given on the next page as a guide, and mention those answers if participants do not. Stress the importance of monitoring to actively find causes of problems and solve them. Point out that the problems in this exercise cannot be solved by "training." Remind participants that training is not always an appropriate solution, for example, when a problem is related to transportation or supply issues.

*****

After the discussion, give participants copies of the answer sheet. Tell participants to go back to page 3, section 2, and read until the next stop sign (page 13).

Possible Answers to Exercise A

Situation 1:

1. While at High Road Health Post, the District TB Coordinator should:

   - Discuss possible options for transporting sputum samples and decide on a plan.
   - Check the supply of sputum containers.
   - Review with staff the procedures for asking about cough, recording in the *Register of TB Suspects*, and collecting and sending sputum samples.
   - Ask to be informed if there are any problems.

2. Later, the District TB Coordinator should:

   - Contact the hospital laboratory and High Road Health Post to ensure that the transportation plan is working.
   - Consider additional supervisory visits to High Road Health Post. Between visits, check on things frequently by phone call.
   - Check the supply of sputum containers and ask about transportation at every supervisory visit.
   - Review the *Register of TB Suspects* to ensure that the expected number of TB suspects (adults coughing for more than 2 weeks) are being found and recorded.

3. It is quite possible that other health facilities lack adequate plans for transporting sputum samples. The District TB Coordinator should discuss transportation options with all facilities offering TB control services, develop specific plans, and put them in writing. The plans may be different for each facility and may involve sharing transportation with the immunization programme or others.

Situation 2:

1. Immediately, the District TB Coordinator should arrange for a supply of sputum containers to be sent to Bella Health Centre. He should also describe suitable alternative containers (e.g. small, clean glass jars that close well) to use in an emergency. The District Coordinator should review with the Bella Health Centre staff the need to ask all adults about cough.

2. Later, follow up to make sure that the supply of sputum containers is received at Bella Health Centre. Ensure that there is a system in place for sending sputum containers from the district storeroom to all health facilities offering TB control services.

3. Be sure to check the supply of sputum containers at all supervisory visits (at Bella Health Centre and other health facilities as well). Plan to increase the order of sputum containers (or adjust where they are sent, based on use) as needed.

3. Explanation of *Quarterly Report on TB Case Registration*

This explanation continues the example for Patanga District given on pages 9–11 of the module. Use the overhead projector to demonstrate how to transfer data from the *District TB Register* to a tally sheet, which can then be used to complete the *Quarterly Report on TB Case Registration.*

This demonstration is critical and should be done very carefully, with emphasis on tallying technique (how to use a blank sheet of paper to keep your place, where to look in the *District TB Register*, etc.). **Similar tallying techniques will be used in completing all of the quarterly reports, so it is worth taking time for a thorough demonstration.**

Paper copies of the following overheads are provided on white pages at the end of this *Facilitator Guide.* Photocopy them onto plastic sheets to make overhead transparencies:

- a *District TB Register* excerpt that continues the example from Patanga District shown on page 11 of the module (Overhead A);
- a blank tally sheet, that is, an enlarged copy of the *Quarterly Report on TB Case Registration* (Overhead B).

Since this demonstration requires handling two overheads, and switching back and forth between them, you will want to practise with the overhead projector in advance. You may ask a co-facilitator or a participant to help you move the overheads on and off of the projector.

****

To begin the demonstration, remind participants that the *Quarterly Report on TB Case Registration* is completed at the beginning of each quarter and includes cases registered **in the quarter that just ended**.

Project the overhead transparency of the *District TB Register* from Patanga District (Overhead A). This excerpt is from the 1st quarter of 2004. At the beginning of the 2nd quarter of 2004, the District TB Coordinator would tally the cases from the 1st quarter, including the cases shown on this excerpt.

Project the overhead transparency of the tally sheet (Overhead B). Using an overhead marker, write the name of the district (Patanga). In the upper right corner, record that patients were registered in the 1st quarter of 2004. Enter a "date of completion of this form" that is early in the 2nd quarter, e.g. 5 April 2004.

Put the overhead transparency of the *District TB Register* back on the projector. Point to the entries in each column as you discuss how to tally each case. Use a blank sheet of paper to obscure the cases not being discussed. Draw participants actively into the discussion by asking them questions about how they would tally a case, for example:

- What type of patient is this?

- Is this case pulmonary smear-positive, smear-negative, or extrapulmonary?
- Where should this case be tallied in Block 1 or 3?
- Should this case also be tallied in Block 2 by sex and age?

When it is decided how to tally a case, put up the overhead transparency of the tally sheet and make the appropriate tally mark(s) to demonstrate.

Following is a case-by-case explanation. The first five cases are also explained in the module on fold-out page 11. Cases P-6 to P-10 are not presented in the module, so be sure to discuss them slowly and carefully.

Cases listed on Overhead A

P-1 The first case for the quarter, Manov Pio, is a new male patient (aged 25 years) with pulmonary smear-positive TB. On the tally sheet, put a tally mark for this patient in Block 1, Column 1. Since this is a new smear-positive case (in the bold cell), also make an entry in Block 2. Put a tally mark for a male in age group 25–34 in Block 2.

P-2 Lana Do, is a female pulmonary smear-positive relapse, aged 40 years. On the tally sheet, put a tally mark for this case in Block 3, in the cell for relapses. Since this case is a relapse, do not make an entry in Block 2.

P-3 Joma Saka had no sputum smear examination but was diagnosed with pulmonary TB by other means. He should be tallied in Block 1, Column 2 with the smear-negative cases. (Note that the smear-negative column includes cases that were not tested.) Since Joma is 10 years old, make the tally mark in the cell for cases <15 years old. Do not make an entry in Block 2.

P-4 Munzir Nabi (aged 20 years) is an extrapulmonary case. Put a tally mark for him in Block 1, Column 3, in the cell for cases ≥15 years old. Do not make an entry in Block 2.

P-5 Sofia Lee is a new female patient (aged 46 years) with pulmonary smear-positive TB. On the tally sheet, put a tally mark for her in Block 1, Column 1. Since this is a new smear-positive case (in the bold cell), also make a tally mark in Block 2 for a female in age group 45–54.

P-6 Carlo Moreno is a new smear-positive case, so he is tallied in the bold cell in Block 1. Put a tally mark for him in Block 2 for a male in age group 25–34.

P-7 Margaret Lo is a "transfer in." She should have already been reported by the district in which she was originally registered, so she will not be reported on the *Quarterly Report* from Patanga District. In order to check the completeness of your tallies, however, you may wish to tally this case at the bottom of the tally sheet.

P-8 Victor Singh is a new smear-positive case, so he is tallied in the bold cell in Block 1. Also put a tally mark in Block 2 for a male in age group 35–44.

P-9 Ram Patel is a "treatment after default." He should be tallied in Block 3. Do not make an entry in Block 2.

P-10 Maria Karna (aged 36 years) is an extrapulmonary case. Put a tally mark for her in Block 1, Column 3, in the cell for cases ≥15 years old. Do not make an entry in Block 2.

After tallying these 10 cases, remind participants this is only one page of a *District TB Register*. They will have to review **all** of the pages from a quarter and tally **all** of the cases before writing total numbers on the actual report. Tallying cases is a painstaking job with potential for counting errors. If there are many register pages to review, it may be helpful to tally each page separately and then total the results.

Tell participants to check the completeness of their tallies by adding together the total cases in Blocks 1 and 3, plus the number of "transfers" noted under the form. The total from the tally sheet should equal the total number of cases entered in the *District TB Register* for the quarter.

Remind participants about the purposes of the *Quarterly Report on TB Case Registration*:

- Some of the data recorded will help them to calculate recommended district-level indicators related to case detection, sputum conversion, and treatment outcomes.
- Some of the data recorded will be used in later *Quarterly Reports* completed for this cohort.
- Reports from all districts will be compiled at higher levels of the TB control programme and used for evaluation purposes.

Tell participants that they will now have a chance to complete *a Quarterly Report on TB Case Registration* for Faba District. Ask them to do Exercise B (pages 48–51) and then see a facilitator for individual feedback. They will need to use module K: *District Tuberculosis Register*.

4. Exercise B: Written exercise followed by individual feedback – Completing the *Quarterly Report on TB Case Registration*

As participants work, be sure that they are using the correct quarter from module K: *District Tuberculosis Register*. They should be using pages from the 3rd quarter of 2004 (pages 15–21). Remind participants to use a piece of paper to keep their place.

Be sure that participants answer the questions on page 51. These questions will help them see beyond the mechanics of completing the form to the meaning of the entries.

When giving individual feedback, ensure that participants know how to check their work. Their totals from Blocks 1 and 3 of the quarterly report, plus transfers in, should equal the total number of cases entered in the *District TB Register* for the quarter.

In this exercise:

57 (cases in Block 1) + 9 (cases in Block 3) + 2 (transfers in) = 68 (the total number of cases in the *District TB Register*)

Note that it is easy to count the number of cases in the *District TB Register* since there are 10 per page.

Give the participant a copy of the answer sheet. Tallying errors are likely to be common on this and other exercises in this module. Provide individual feedback to be sure that the participant understands the process. Once the participant understands the process, he or she may look for any tallying errors independently.

After providing individual feedback, tell the participant to go back to page 13, section 3.2, and read until the next stop sign.

Answers to Exercise B

QUARTERLY REPORT ON TB CASE REGISTRATION

Name of district: *Faba* *District no.:* *4* *Name of District TB Coordinator:* *Oke Karimi* Signature: *OkeKarimi*	**Patients registered during** *3rd* ***quarter of year*** *2004* Date of completion of this form: *4/10/04*

Block 1. NEW CASES

Pulmonary			Extrapulmonary (3)		Total (4)
Smear (+) (1)	Smear (–) (2)				
	<15 years	*≥15 years*	*<15 years*	*≥15 years*	
36	*7*	*9*	*0*	*5*	*57*

Block 2. NEW PULMONARY SMEAR (+) CASES ONLY, FROM BLOCK 1 ABOVE, BY SEX AND AGE GROUP

	Age group in years							
Sex	0–14	15–24	25–34	35–44	45–54	55–64	≥65	Total
M	*0*	*3*	*16*	*5*	*0*	*0*	*0*	*24*
F	*0*	*3*	*6*	*1*	*2*	*0*	*0*	*12*

Block 3. PREVIOUSLY TREATED CASES (Smear-positive)*

Relapse	Treatment after failure	Treatment after default	Other**
3	*2*	*3*	*1*

Note: There were 2 "transfers in" not shown in this report.

Answers to questions about the *Quarterly Report on TB Case Registration*:

a. 36 patients registered in the 3rd quarter are new smear-positive cases.

b. Of these new smear-positive cases, 24 are men and 12 are women.

c. The largest number of new smear-positive cases is in the age group 25–34 years.

d. 8 cases registered in the 3rd quarter are re-treatments (relapses, treatment after failure, and treatment after default).

5. Exercise C: Written exercise followed by individual feedback – Completing the *Quarterly Report on Sputum Conversion*

If participants had difficulty with the tallying process in the previous exercise, do the **optional demonstration** described below to begin Exercise C as a group. If participants had no difficulty with the tallying process, they may begin Exercise C on their own. (Skip to **independent work**, below.)

Optional demonstration: Introduce Exercise C by using the overhead projector to illustrate how to tally new smear-positive cases that have sputum conversion on the tally sheet for the *Quarterly Report on Sputum Conversion.*

Paper copies of the following overheads are provided on white pages at the end of this *Facilitator Guide* and may be photocopied onto plastic sheets to make overhead transparencies:

- an excerpt from page 8 of Faba District's *District TB Register* (Overhead C)
- a blank tally sheet, that is, an enlarged copy of the *Quarterly Report on Sputum Conversion* (Overhead D)

Following the instructions in Exercise C (page 52 of the module), and using the overhead transparencies, demonstrate the process of tallying new pulmonary smear-positive cases, and whether or not they converted, on the tally sheet. Participants may simultaneously make tally marks on their tally sheets in Exercise C (page 53). Be sure to involve participants actively; **do not turn the demonstration into a lecture.**

You will find 6 new smear-positive cases on page 8 of the *District TB Register* (Overhead C). Of these cases, 5 converted at 2 months and 1 converted at 3 months. Thus the overhead of the tally sheet (at the end of the demonstration) will have no tally marks in the column for "smear not done." By pointing to the appropriate places on the overhead, show participants where to tally cases that have no test results at 2 or 3 months, or cases that do not convert.

After the demonstration, participants should continue Exercise C independently, tallying cases from pages 9–14 of the *District TB Register*.

Independent work: As participants work, be sure that they are using the correct quarter from module K: *District Tuberculosis Register*. They should be using pages from the 2nd quarter of 2004 (pages 8–14). Be sure that participants understand the reason for waiting to complete the report on sputum conversion, that is, one must wait long enough for conversion to occur (2–3 months). Thus, in the 4th quarter of 2004 in Faba District, it is time to report sputum conversion for cases registered in the 2nd quarter of 2004.

Be sure that participants answer the questions on page 55 of the module. These questions will help them see beyond the mechanics of completing the form to the meaning of the entries.

When giving individual feedback, ensure that participants know how to check their work. The total number of cases that converted at 2 or 3 months, plus those not tested, plus those that did not convert should equal the number of new smear-positive cases recorded in the first column. In this exercise:

35 (converted) + 4 (smear not done) + 2 (did not convert) = 41 (the number of new smear-positive cases in the first column).

Point out that, even if a case did not convert at 2 or 3 months, that case can still have a successful treatment outcome. To be "cured" the case must be sputum smear-negative in the last month of treatment and on at least one previous occasion, which could be at 5 months.

Give the participant a copy of the answer sheet. Tallying errors are likely to be common in this exercise and other exercises in this module. Provide individual feedback to be sure that the participant understands the tallying process. Once the participant understands the process, he or she may look for any tallying errors independently.

After finding and correcting any errors, the participant should go back to page 19, section 3.3, and read until the next stop sign.

Answers to Exercise C

QUARTERLY REPORT ON SPUTUM CONVERSION

Name of district: *Faba* *District no.:* *4* *Name of District TB Coordinator:* *Oke Karimi* Signature: *OkeKarimi*	***Patients registered during*** *2nd* ***quarter of year*** *2004* ******* Date of completion of this form: *4/10/04*

Number of new smear-positive cases registered in quarter recorded above**	Smear not done at either 2 or 3 months	Sputum conversion at:	
		2 months	3 months
41	*4*	*32*	*3*
Total converted at 2 or 3 months:		*35*	

* Quarter: This form applies to patients registered (recorded in the *District Tuberculosis Register*) in the quarter that ended 3 months ago. For example, if completing this form at the beginning of the 3rd quarter, record data on patients registered in the 1st quarter.

** This number should match the number of new smear-positive cases in Block 1, Column 1, of the *Quarterly Report on TB Case Registration* previously completed for patients registered in this quarter.

Answers to questions on *Quarterly Report on Sputum Conversion*:

a. 4 new sputum smear-positive cases had no smear done at 2 months and no smear done at 3 months. Possible reasons:

Patient defaulted before the test.
Patient died before the test.
Patient transferred out before the test.
Staff did not ask for sputum samples or collect them

b. 35 new sputum smear-positive cases converted at 2 or 3 months.

c. Patient F-83 defaulted after the 2-month test, which was positive. Patient F-125 was still positive at 2 and at 3 months. Presumably he is still being treated and will be tested again at the end of 5 months.

6. Exercise D: Written exercise followed by individual feedback – Completing the *Quarterly Report on Treatment Outcomes*

If participants had difficulty with the tallying process in the previous exercises, do the **optional demonstration** described below to begin Exercise D as a group. If participants had no difficulty with the tallying process, they may begin Exercise D on their own. (Skip to **independent work**, below.)

Optional demonstration: Introduce this exercise by using the overhead projector to illustrate how to complete the *Quarterly Report on Treatment Outcomes.*

Paper copies of the following overheads are provided on white pages at the end of this *Facilitator Guide* and may be photocopied onto plastic sheets to make overhead transparencies:

- the *Quarterly Report on TB Case Registration* shown in Exercise D of the module, page 57 (Overhead E)
- a blank tally sheet, that is, an enlarged copy of the *Quarterly Report on Treatment Outcomes* (Overhead F)
- excerpts from page 1 of Faba District's *District TB Register* (Overhead G)

Using the overhead transparencies, demonstrate the process of transferring data from the *Quarterly Report on TB Case Registration* (Overhead E) to the left side of the tally sheet for the *Quarterly Report on Treatment Outcomes* (Overhead F). (This process was pictured on page 21 of the module for a different district and quarter.)

Do not lecture. Do involve the participants in the demonstration. For example, while projecting the *Quarterly Report on TB Case Registration,* ask, "How many new sputum smear-positive cases are entered on this report?" Then project the tally sheet for the *Quarterly Report on Treatment Outcomes,* and enter the number on that form.

After completing the left side of the *Quarterly Report on Treatment Outcomes*, use the excerpts from page 1 of the *District TB Register* (Overhead G) to demonstrate how to tally treatment outcomes for cases. There are a variety of outcomes on page 1 of the *District TB Register*. Remember **not** to tally the treatment outcome for the extrapulmonary (EP) case. While you are marking on the overhead, participants may simultaneously make tally marks on the tally sheet given in Exercise D (page 58).

When you are finished with this demonstration, the overhead of the tally sheet (showing outcomes only for cases on page 1 of the *District TB Register*) should look like the next page.

Tally sheet: *Quarterly Report on Treatment Outcomes*

Name of district: Faba	Name of District TB Coordinator: Oke Karimi	*Patients registered during* 3rd *quarter of year* 2003 *
District no.: 4	Signature: OkeKarimi	Date of completion of this form: 4/10/04

Type of case		Total number of pulmonary patients registered during quarter reported on**	Treatment outcomes						Total number evaluated for outcomes: Sum of columns 1 to 6
			Cure (1)	Treatment completed (2)	Died (3)	Treatment failure (4)	Default (5)	Transfer out (and outcome unknown) (6)	
1. New	1.1 Smear (+)	32	IIII				I		
	1.2 Smear (–)	15		III					
2. Re-treatment (smear-positive)***	2.1 Relapses	2							
	2.2 Treatment after failure	2	I						
	2.3 Treatment after default	3							

After the demonstration, participants should continue Exercise D independently, tallying outcomes for cases on pages 2–6 of the *District TB Register*.

Independent work: Be available to help participants who may appear confused or have questions. As participants work, be sure that they are using the correct quarter from module K: *District Tuberculosis Register*. They should be using pages from the 3rd quarter of 2003 (pages 1–6). Be sure that participants understand the reason for waiting 12 months to complete the report on treatment outcomes, that is, one must wait long enough for outcomes to occur. Thus, at the beginning of the 4th quarter of 2004 in Faba District, it is time to report on sputum conversion for cases registered in the 3rd quarter of 2003.

Be sure that participants answer the questions on pages 67-68 of the module. These questions will help them understand the meaning of the entries on the report.

When giving individual feedback, ensure that participants know how to check their work. Unless there were exclusions or cases with no outcome recorded, the sum of columns 1 to 6 (in the last column) should equal the total in the first column (transferred from the earlier *Quarterly Report on TB Case Registration* for the cohort).

Remind participants that **line 1.1** of the *Quarterly Report on Treatment Outcomes* is the most important, as it provides data to measure treatment outcomes for **new pulmonary smear-positive cases** and thereby assess the quality of the district TB control programme. Reporting of treatment outcomes for pulmonary smear-negative and re-treatment cases is optional, but encouraged.

After individual feedback, give the participant a copy of the answer sheets. After finding any errors, the participant should go back to page 25, section 4, and read until the next stop sign.

QUARTERLY REPORT ON TREATMENT OUTCOMES

Name of district: *Faba*	Name of District TB Coordinator: *Oke Karimi*	***Patients registered during*** *3rd* ***quarter of year*** *2003* *
District no.: *4*	Signature: *OkeKarimi*	Date of completion of this form: *4/10/04*

Type of case		Total number of pulmonary patients registered during the quarter reported on**	Treatment outcomes						Total number evaluated for outcomes: Sum of columns 1 to 6
			Cure (1)	Treatment completed (2)	Died (3)	Treatment failure (4)	Default (5)	Transfer out (and outcome unknown) (6)	
1. New	1.1 Smear (+)	*32*	*22*	*3*	*2*	*1*	*3*	*1*	*32*
	1.2 Smear (–)	*15*		*10*	*1*		*4*		*15*
2. Re-treatment (smear-positive)* **	2.1 Relapses	*2*	*2*						*2*
	2.2 Treatment after failure	*2*	*2*						*2*
	2.3 Treatment after default	*3*	*2*					*1*	*3*

* Quarter: This form applies to patients registered (recorded in the *District Tuberculosis Register*) in the quarter that ended 12 months ago. For example, if completing this form at the beginning of the 3rd quarter, record data on patients registered in the 2nd quarter of the previous year.

** These numbers are transferred from the *Quarterly Report on TB Case Registration* for the above quarter. Of these patients, _____ (number) were excluded from evaluation for the following reasons: _____

*** In areas routinely using culture, a separate form for culture-positive patients should be used.

Answers to Exercise D, continued

Answers to questions about the *Quarterly Report on Treatment Outcomes*:

a. Outcomes were recorded for 32 new smear-positive cases. Of these, 22 were cures.

b. These are all new sputum smear-positive cases who did not have a 5-month follow-up sputum examination. However, they had a sputum examination at the end of treatment (as well as one earlier negative examination) and so were proven cures.

   There may be a problem with Bella Health Centre and the health posts not doing the 5-month examination. Since the final sputum examination is necessary to prove a cure, perhaps health workers are saving their efforts and their sputum containers for the final examination rather than the 5-month examination.

c. 54 cases had outcomes recorded on the *Quarterly Report on Treatment Outcomes.* Of the 60 cases entered in the *District TB Register* in the 3rd quarter of 2003, those not accounted for on this report are 5 extrapulmonary cases and 1 transfer in.

7. Exercise E: Written exercise followed by individual feedback – Calculating and analysing indicators related to case detection and quality of diagnosis

Participants may ask for individual feedback after Part I of this exercise, or they may continue working until the end of Part II before seeking feedback.

Use the answer sheets as a guide for giving feedback. Refer to the tables about analysis of indicators given on pages 28 and 29 of the module.

In discussing Part I of the exercise, point out the footnote on page 28 of the module. This explains that the expected ratio of TB suspects tested to adult outpatients is 3–5% because that is the expected percentage of adults with cough lasting 2 weeks or more. A study could be done to find out a more accurate expected level for a specific area.

Possible question: Some participants may wonder why this indicator is called a ratio and not a proportion. It is not technically correct to call it a proportion because some members of the numerator may not necessarily be in the denominator. (For example, the laboratory reports used to determine the numerator may include people who were not referred by public health facilities reporting the number of adult outpatients.) Nevertheless, the numerator and denominator data should be related. If more adult outpatients are asked about cough and have sputum samples examined, the numerator will go up while the denominator stays about the same.

In discussing Part II, note that data from the *Quarterly Report on TB Case Registration* are used to calculate the indicator related to quality of diagnosis in the district. This is just one example of how the *Quarterly Reports* are useful at district level as well as higher levels. Other indicators will be calculated based on these reports as well.

Relate the exercise to the participant's home district if possible. For example, ask whether the proportion of TB cases that are sputum smear-positive is known for the participant's district. If known, discuss possible interpretations of that indicator.

After providing individual feedback, give the participant a copy of the answer sheet. Tell the participant to go back to page 30, section 4.3, and read until the next stop sign.

Answers to Exercise E, Part I

Indicators related to case detection in Faba District, 3rd quarter of 2004

Indicator	Formula for calculating (numerator ÷ denominator)	Sources of data	Results for Faba District	
			Numerator / Denominator	Ratio or proportion
Ratio of TB suspects tested to outpatients aged 15 years and older	Number of TB suspects whose sputum was examined	Obtain from laboratory reports from district laboratory supervisor	*600*	*4%*
	Total number of outpatients aged 15 years and older seen for any reason at facilities providing TB control services	Estimate based on outpatient totals from health facilities in previous quarters	*15 000*	
Proportion of TB suspects tested who were sputum-smear positive (positivity rate)	Number of TB suspects who were sputum smear-positive	Obtain from laboratory reports from district laboratory supervisor	*42*	*7%*
	Number of TB suspects whose sputum was examined	Obtain from laboratory reports from district laboratory supervisor	*600*	

Answers to questions about the indicators:

a. The first indicator, the ratio of TB suspects tested to outpatients aged 15 years and older, is in the middle of the expected range of 3–5%. It suggests an improvement above the rate of 2% in 2003.

b. The second indicator, the proportion of TB suspects tested who were sputum-smear positive, is in the middle of the expected range of 2–15%. The rate may have decreased to 7% (from 10% one year ago) because of better TB case detection (i.e. health workers may be asking less seriously ill patients about cough).

Answers to Exercise E, Part II

Indicator related to quality of diagnosis in Faba District

Indicator	Formula for calculating (numerator ÷ denominator)	Source of data	Results for Faba District	
			Numerator / Denominator	Proportion
Proportion of TB cases who were sputum smear-positive	Number of TB cases who were sputum smear-positive	Refer to the *Quarterly Report on TB Case Registration* for the cohort. Add the new sputum smear-positive cases **(Block 1, Column 1)** and all cases recorded in **Block 3.**	*45*	*68%*
	Total TB cases	Refer to the *Quarterly Report on TB Case Registration* for the cohort. Add the total new cases **(Block 1, Column 4)** and all cases recorded in **Block 3.**	*66*	

Answers to questions about the indicator:

a. At 68%, this indicator is above the expected level of at least 50%.

b. There does not seem to be a problem with over-reliance on X-ray for diagnosis of TB in Faba District. If there is an increase, however, it may suggest that more clinicians are relying on sputum smear microscopy for diagnosis.

8. Exercise F: Written exercise followed by discussion – Calculating and analysing indicators related to TB treatment

If participants are uncertain about their answers in the table of indicators on page 66, they may come for individual feedback on this part of the exercise before continuing. If so, check their answers and give them the first page of the answer sheet.

When everyone has finished the exercise, distribute the first page of the answer sheet (the table of indicators) to any participants who have not yet collected it. Ask if there are any questions about the mathematics of calculating the indicators. Note that it is very easy to calculate indicators related to sputum conversion and treatment outcomes if one has completed the *Quarterly Report on Sputum Conversion* and the *Quarterly Report on Treatment Outcomes* for the appropriate cohorts.

Be sure that participants understand why, at a certain reporting time, the sputum conversion rate is calculated for a different (more recent) cohort than the treatment outcome rates. The reason is that sputum conversion can be expected at the end of 2 or 3 months of treatment, while treatment outcomes may take 12 or more months to be achieved.

Use the answer sheets as a guide for the discussion. Refer as needed to the table on page 32 of the module about analysis of the indicators. Focus on the interpretation of the indicators more than the mathematics of the exercise.

Point out that, with small numbers of new sputum smear-positive cases, one or two cases can make a big difference in the sputum conversion rate or the treatment outcome rates. Therefore one cannot get too excited (or dismayed) by a sudden change in a rate. One must look for sustained changes over a number of quarters.

Relate the exercise to the participant's home districts if possible. For example, ask whether the sputum conversion rate is known for the participants' districts. If known, discuss possible interpretations of that indicator.

After the discussion, give participants copies of the second page of the answer sheets. Tell the participant to go back to page 34, section 5, and read until the next stop sign.

Answers to Exercise F

Indicators related to TB treatment in Faba District

Indicator	Formula for calculating (numerator ÷ denominator)	Sources of data	Results for Faba District	
			Numerator / Denominator	Proportion
Proportion of new sputum smear-positive TB cases who converted at 2 or 3 months (sputum conversion rate)	Number of new sputum smear-positive TB cases who converted at 2 or 3 months	*Quarterly Report on Sputum Conversion*, bottom row	*35*	*85%*
	Total new sputum smear-positive TB cases	*Quarterly Report on Sputum Conversion*, first column	*41*	
Proportion of new sputum smear-positive TB cases with each treatment outcome: Cure	Number of new sputum smear-positive TB cases with outcome **cure**	*Quarterly Report on Treatment Outcomes*, line 1.1, **column 1**	*22*	*69%*
	Total new sputum smear-positive TB cases	*Quarterly Report on Treatment Outcomes*, line 1.1, total number evaluated	*32*	
Treatment completed	Number of new sputum smear-positive TB cases with outcome **treatment completed**	*Quarterly Report on Treatment Outcomes*, line 1.1, **column 2**	*3*	*9%*
	Total new sputum smear-positive TB cases	*Quarterly Report on Treatment Outcomes*, line 1.1, total number evaluated	*32*	
Died	Number of new sputum smear-positive TB cases with outcome **died**	*Quarterly Report on Treatment Outcomes*, line 1.1, **column 3**	*2*	*6%*
	Total new sputum smear-positive TB cases	*Quarterly Report on Treatment Outcomes*, line 1.1, total number evaluated	*32*	
Treatment failure	Number of new sputum smear-positive TB cases with outcome **treatment failure**	*Quarterly Report on Treatment Outcomes*, line 1.1, **column 4**	*1*	*3%*
	Total new sputum smear-positive TB cases	*Quarterly Report on Treatment Outcomes*, line 1.1, total evaluated	*32*	
Default	Number of new sputum smear-positive TB cases with outcome **default**	*Quarterly Report on Treatment Outcomes*, line 1.1, **column 5**	*3*	*9%*
	Total new sputum smear-positive TB cases	*Quarterly Report on Treatment Outcomes*, line 1.1, total evaluated	*32*	
Transfer out (out of district)	Number of new sputum smear-positive TB cases with outcome **transfer out**	*Quarterly Report on Treatment Outcomes*, line 1.1, **column 6**	*1*	*3%*
	Total new sputum smear-positive TB cases	*Quarterly Report on Treatment Outcomes*, line 1.1, total evaluated	*32*	

Answers to Exercise F, continued

a. The sputum conversion rate for patients registered in the 2nd quarter of 2004 is at the desired level of at least 85%. This suggests that TB case management in Faba district is of reasonably good quality where it is offered.

b. The sputum conversion rate should be entered on the graph at 85%. Reasons for the increase in the rate could include improved patient adherence and improved treatment.

c. For the cohort of new smear-positive cases registered in the 3rd quarter of 2003, the rate of "treatment success" (that is, the proportion cured plus the proportion that completed treatment) was 78% (69% plus 9%).

According to the graph, the sputum conversion rate for that same cohort was about 81%.

"Treatment success" for this cohort seems consistent with its earlier sputum conversion rate. The "treatment success" rate is just a bit lower than the earlier sputum conversion rate. It is likely that one of the converted cases defaulted, died, or transferred out and had no known outcome, while the rest finished treatment.

d. Possible reasons for the changes in the cure rate (from 54% to 69%) and completion rate (from 18% to 9%):

- More cases are being proven cured (having final sputum examination) as opposed to just finishing treatment.
- Overall treatment success (cure plus completion) has also improved, suggesting perhaps fewer defaults. The decrease in the default rate bears this out.

Possible reasons for the changes in the default rate (decrease from 17% to 9%):

Although this rate is still too high at 9%, it has improved. Reasons may include improved quality and convenience of services. Perhaps health workers are also informing patients better about the need to continue treatment until cured.

e. The numerator of the death rate in Faba District included the 2 new sputum smear-positive cases who died, out of the cohort of cases registered in the 3rd quarter of 2003. These were cases F-157 and F-167. Case F-157 (Mohammed Arata) died of complications from HIV infection, and case F-167 (Lea Chan) died in a car accident.

Note: There were 5 deaths in this cohort, but only the 2 who were new sputum smear-positive cases are included in the rate. The other 3 deaths were extrapulmonary or smear-negative cases. One of these was HIV-related and 2 were seriously ill patients.

Faba District should be able to reduce the death rate by involving HIV testing sites in asking PLWHA about cough and referring them for sputum examination if they have been coughing for 2 weeks or more. If TB is detected early, more co-infected persons will survive. Note that, if Mohammed Arata had survived, the death rate for new smear-positive cases in this cohort would be only 3%.

9. Exercise G: Written Exercise followed by individual feedback – Evaluation of target

Note that this exercise jumps ahead to the beginning of 2005, when it is time to determine whether the sputum conversion target of 85% was achieved for Faba District in 2004.

Use the answer sheet as a guide for providing individual feedback.

Relate the discussion to the participant's district if possible. For example, ask what could be done to achieve a higher sputum conversion rate in the participant's district.

Point out that, in Faba District as well as other districts, failure to do follow-up testing at 2 or 3 months affects the sputum conversion rate adversely. It is important to analyse why individual cases were not tested at 2 or 3 months to solve this problem.

After providing individual feedback, give the participant a copy of the answer sheet. Tell the participant to go back to page 39 and read and work to the end of the module.

Answers to Exercise G

2. The sputum conversion rate for this cohort is calculated as follows:

$$\frac{31}{36} = \text{about } 0.86 \text{ or } 86\%$$

3a. This rate is higher than the sputum conversion target of 85% set for Faba District for 2004. Yes, the target was achieved. However, notice the difference that one case can make. If only 30 cases had converted instead of 31, the rate would be 83%.

3b. It will be important to find out **why** four cases in this cohort were not tested at 2 or 3 months. The reasons will suggest possible ways to achieve even higher sputum conversion in Faba District, which might include:

- Decreasing defaults by making TB control services more convenient (using community TB treatment supporters or expanding to more health facilities).
- Making sure that health workers understand the importance of follow-up sputum examinations and know the schedule.
- Providing more sputum containers and reliable transportation for sputum samples.

10. Self-assessment questions (self-checked)

Notice whether some participants are finishing the module much earlier than others. If so, suggest that they do optional Exercise H, which is at the end of the exercises in the module. An answer sheet is provided on the next page. When they finish the optional exercise, give them the answer sheet to check their own work.

11. 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.

Possible Answers to Optional Exercise H

This is an exercise with many possible answers. Some possible answers are as follows:

1. Some possible causes of a low sputum conversion rate are:

   - Patients do not have a follow-up sputum examination at 2 or 3 months.
   - Patients have irregular attendance for treatment and do not convert.
   - Patients default before 2 or 3 months of treatment.
   - Patients die before 2 or 3 months of treatment.
   - TB/HIV patients have a high bacillary load and take longer to convert.

2. For the first cause listed above, some possible root causes are:

   - Health workers do not know the schedule for follow-up examinations.
   - There are not enough sputum containers at the health facilities, and those available are reserved for diagnosis.
   - Patients treated by community TB treatment supporters find it inconvenient to bring sputum samples to the health facility.

3. For the root causes listed in question 2, some possible solutions are as follows:

Possible root cause	Possible solution
Health workers do not know the schedule for follow-up examinations.	Provide on-the-job training or job aids for health workers.
There are not enough sputum containers at the health facilities.	Order and provide more sputum containers; explain importance of follow-up sputum examinations at 2 or 3 months.
Patients treated by community TB treatment supporters find it inconvenient to bring sputum samples to the health facility.	Provide community TB treatment supporters with sputum containers; find ways to pick up sputum samples from community TB treatment supporters.

Similar problem-solving tables could be made for the root causes of other causes listed in question 1.

Facilitator Guidelines for

H: Advocacy and Collaboration for TB Control

Procedures	Feedback
1. Distribute module H: *Advocacy and Collaboration for TB Control*. Introduce the module.	-----
2. Participants read pages 1–6 of the module and then do Exercise A, pages 20–21.	Individual
3. Participants read pages 7–8 of the module and then do Exercise B, pages 22–23.	Group discussion
4. Participants read pages 9–12 of the module and then do Exercise C, page 24.	Group discussion
5. 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
6. Conclude the module.	-----

1. Introducing the module

Explain that **advocacy** is a word that is commonly used but may have different meanings to different people. As used in this course, it means promoting and gaining support for the DOTS strategy and TB control services. Support may be financial or political.

Mention the examples of advocacy listed on page 1 of the module. Ask participants if they can think of other examples, perhaps from their own districts.

Explain that advocacy can lead to **collaboration**, that is, working together towards a common purpose. This module will describe some ways to collaborate with non-public health facilities, private practitioners, and with various organizations.

Explain that it is particularly important for the district TB control programme to collaborate with the HIV/AIDS programme. Section 5 of this module will describe ways to collaborate with the HIV/AIDS programme.

Ask participants to read the module to the stop sign on page 6 and then do Exercise A individually.

2. Exercise A: Written exercise followed by individual feedback – Collaboration with private physicians

Possible answers are given on the answer sheet; each participant's answers may vary. When giving feedback, discuss the participant's answers first; then use the answer sheet as a guide to suggest other possible answers.

After discussing question 1, ask participants how they could find answers to the questions listed in their areas. Would they talk with a sample of physicians? Visit private clinics?

After providing individual feedback, give the participant a copy of the answer sheet.

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

Possible Answers to Exercise A

1. Dr Karimi should attempt to answer questions such as the following. You should have listed several questions of this type.

   - How do most private physicians currently diagnose TB?
   - Where do private patients obtain anti-TB drugs? At what cost?
   - Is their treatment directly observed?
   - To what extent do private physicians follow the national guidelines for TB control?
   - Are treatment records kept?
   - If private physicians do rely on sputum smear microscopy, where are sputum samples examined, and at what cost?
   - Are follow-up sputum examinations done?
   - Are private physicians aware of TB control services being offered free of charge by public health facilities? What is their attitude towards the free services?

2. Dr Karimi could meet with all of the physicians working at a private clinic together at the end of clinic hours. Perhaps he could make a presentation at a Rotary Club meeting. Support could be obtained to offer refreshments.

3. Examples of points to be made include the following. You may have listed others.

   - Sputum smear microscopy is the most cost-effective way to diagnose pulmonary smear-positive TB. (When sputum smear microscopy is inconclusive, public health staff are instructed to refer patients to a clinician.)
   - Sputum smear microscopy is provided free of charge by the public health services.
   - Anti-TB drugs can be provided free of charge by the public health services.
   - Treatment of TB patients must be directly observed.
   - Defaults often occur if patients must pay for drugs and if treatment is not directly observed.
   - Public health facilities offering free TB control services are _____ *(provide names, locations, and hours).*

4. You should have listed two ways to collaborate. Possibilities include the following:

The private practitioner could:	**While district public health services could:**
Refer patients with suspected TB to the public health services for sputum examination.	Provide free sputum smear microscopy; diagnose smear-positive TB; refer the patient back (with results) for other care as needed.
Refer patients diagnosed with TB to the public health services for free anti-TB drugs and directly observed treatment.*	Provide free drugs and directly observed treatment for referred TB cases.
Diagnose TB, provide directly observed treatment, and report cases to the district TB control programme.	Provide free drugs, training, and reporting forms. Trace missing patients to ensure continuation of treatment.

** It is critical that patients know where to get free anti-TB drugs. Having to purchase drugs often leads to default.*

3. Exercise B: Written exercise followed by group discussion – Collaborating with organizations in your district

Be sure that every participant does the written exercise to prepare for the discussion. Answers to this exercise will be related to the participants' own districts and may vary greatly, so there is no printed answer sheet for this exercise.

Notice that question 1 of this exercise focuses on associations that are primarily related to health care, while question 2 focuses on other organizations, not related to health care, that may have an interest in collaboration.

Use a flipchart or blackboard to record the group's ideas during the discussion. For example, to discuss question 1, on the left of a flipchart page, write the health-care-related associations mentioned by the participants. On the right, record possible ways to inform and collaborate with each.

On another page, record community organizations on the left. On the right, record possible ways to inform and collaborate with each. Try to include every participant in the discussion.

After the discussion, ask participants to go back to page 9 of the module and continue reading until the next stop sign.

4. Exercise C: Written exercise followed by group discussion – Collaboration of HIV/AIDS and TB control programmes

Be sure that every participant does the written exercise to prepare for the discussion. Answers to this exercise will be related to the participants' own districts and may vary greatly, so there is no printed answer sheet for this exercise.

As needed, refer to section 5 of the module for possible ways to collaborate with the HIV/AIDS programme. For example, one very important way to collaborate is to involve HIV testing and care sites in TB case detection (section 5.2). Ask participants if HIV testing and care sites in their districts refer patients who have been coughing for 2 weeks or more for sputum examination. If not, ask whether HIV testing and care sites might be asked to collaborate in this way in the future.

Record participants' ideas on the flipchart or blackboard. Try to include every participant in the discussion.

After the discussion, ask participants to go to page 13 and read and work to the end of the module, checking their own answers to the self-assessment questions.

5. Self-assessment questions (self-checked)

6. 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.

Facilitator Guidelines for

I: Develop the District Plan of Action for TB Control

Procedures	Feedback
1. Distribute module I: *Develop the District Plan of Action for TB Control*. Introduce the module.	-----
2. Participants read pages 1–6 of the module and then do Exercise A, page 24.	Individual
3. Participants read pages 7–8 of the module and then do Exercise B, page 25.	Group discussion
4. Participants read pages 9–14 of the module and then do Exercise C, pages 26–27.	Group discussion
5. Participants read pages 15–17 of the module and then do Exercise D, pages 28–39.	Individual and Group discussion
6. Participants read the summary of important points (page 18) and then do the self-assessment questions. Participants check their own answers against those provided in the module.	Self-checked
7. Conclude the module.	-----

1. Introducing the module

Explain that this module will describe how to develop a *District TB Plan* similar to the one shown for Faba District in module B. Participants should have module B: *Faba District* available to refer to.

Participants may use a different format for planning in their own districts, but a good plan should always include some basic elements, such as: **targets**, **activities** needed to achieve the targets, and information on **who** will carry out the activities, **when** they will be accomplished, and what human and financial **resources** are needed.

Draw attention to the diagram on page 1 of the module. Explain that monitoring and evaluation provide the basis for a good plan. The extent and quality of current TB control services must be assessed before one can plan how to improve, maintain, or expand services. Thus, the first part of this module focuses on assessing the current status of TB control services in the district.

Ask participants to read to the stop sign on page 6 of the module and then do Exercise A individually.

2. Exercise A: Written exercise – Setting a sputum conversion target

There is no absolute correct answer to this exercise. Participants may suggest sputum conversion targets that range from 85% to 90%. Participants should be able to describe the reasoning behind their answers. The situation in Faba District, as described on page 24 of the module, is improving in many ways, so it should be possible at least to maintain the current sputum conversion rate of 85%. The rate may increase, but 90% is likely to be the maximum that can be reached.

If a participant gives an unusual answer (e.g. 50% or 100%), try to find out what the participant has misunderstood.

Give the participant a copy of the answer sheet.

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

Possible Answers to Exercise A

Possible answers for the sputum conversion target may range from 85% to 90%. There is no absolutely correct answer. Participants should be able to describe their reasoning.

3. Exercise B: Written exercise followed by group discussion – Planning activities to solve a problem

Be sure that every participant does the written exercise to prepare for the discussion.

First, briefly review the situation (or ask a participant to describe it): Nurse Natore at High Road Health Post needs a better arrangement for transporting sputum samples to the TB microscopy unit at Agraville Hospital. She also needs transportation to visit patients who miss visits and to take drugs to a community TB treatment supporter. Funds for a motorcycle or other vehicle are not readily available.

Ask participants what activities should be included in the *District TB Plan* to help solve the transportation problem at High Road Health Post. Use the answer sheet as a guide during the discussion, but recognize that participants may have other good ideas, and focus on their ideas first. If they do not eventually mention the answers given on the answer sheet, then you may mention them yourself.

Use a flipchart or blackboard to record the group's ideas during the discussion. List activities clearly, as participants will refer to this list when they do Exercise D later.

Discuss the practicality of each activity listed on the flipchart. Also discuss any preparation needed and possible ways to obtain resources needed.

After the group discussion, give participants a copy of the answer sheet. Ask participants to go back to page 9 of the module and read until the next stop sign.

Possible Answers to Exercise B

Possible activities to help solve the transportation problem at High Road Health Post include the following:

- Since there is a bus between High Road Health Post and Bella Health Centre, arrange to pay the bus driver to deliver sputum samples to Bella Health Centre.

- Find out who are regular travellers on the road, and determine whether they can help with transportation of sputum samples. (Regular travellers could include trucks, taxis, or representatives of NGOs or community organizations.)

- Discuss with Nurse Natore what type of transportation would be most useful and appropriate for her (e.g. When and how would she use the transportation? Could she drive a motorcycle? Would it be socially acceptable? Would she need a licence or training to drive it?)

- Research availability of new and used motorcycles or vehicles, types, features, fuel, and maintenance costs, etc.

- Meet with business associations to explore the possibility of a donation or funds for motorcycle or other vehicle.

- Meet with other health programmes (e.g. immunization) to discuss sharing expense and use of motorcycle or other vehicle.

- Purchase motorcycle or vehicle (using funds from budget plus funds from other sources).

The District TB Coordinator would be responsible for these activities. If possible, the first activity (paying the bus driver) should begin as soon as possible, even before the start of 2005. The other activities should take place as soon as possible, preferably early in 2005.

Participants may have listed other activities.

4. Exercise C: Written exercise followed by group discussion – Expansion of TB control services

Note: It will be helpful to have a map of Faba District photocopied on an overhead transparency for use during the discussion of expansion of TB control services. You may make one using Overhead A, printed on a white page at the end of this *Facilitator Guide*, or simply use the map at the beginning of module B: *Faba District*.

Be sure that every participant does the written exercise to prepare for the discussion.

First, briefly review the situation in Faba District (or ask a participant to describe it) based on the information given on page 26 of the module.

Next, taking each question (1–4) in turn, ask the participants for their opinions about expansion of TB control services in Faba District. In deciding whether to expand, consider the factors listed on page 9 of the module. Once it is decided to expand TB control services, there are two main issues to decide for Faba District:

- where to expand TB case detection and treatment
- where to situate the new TB microscopy unit for which funds are available.

Use the answer sheet as a guide during the discussion, but recognize that participants may have other good ideas, and focus on their ideas first. If they do not eventually mention the answers given on the answer sheet, then you may mention them yourself.

Discuss the pros and cons of each idea. In selecting health facilities for expansion, refer to the factors listed on page 10 of the module. In determining where to place the TB microscopy unit, consider issues such as transportation (distance, roads) and the number of health facilities that could be served, and their outpatient loads.

Participants may have different ideas about what would be most cost-effective, and that is fine. Record on the flipchart the group's conclusions about where to expand TB case detection and treatment, and where to place the new TB microscopy unit. Participants will refer to these conclusions later, when they do Exercise D.

After discussing expansion of TB control services in Faba District, use questions 5 and 6 to change the focus of the discussion to participants' own districts. Some districts may be ready for expansion only to more public health facilities. Others may be ready for expansion to non-public health facilities. (Criteria are suggested on page 12 of the module in section 3.4.) Encourage the group to think creatively about how to involve non-public health facilities in TB control. They may draw on ideas from module H: *Advocacy and Collaboration for TB Control.*

After the discussion, give participants a copy of the answer sheet. Ask participants to go back to page 15 of the module and read until the next stop sign.

Possible Answers to Exercise C

1. Yes, TB control services should be expanded in Faba District. Reasons include:

   - The sputum conversion rate for health facilities currently providing TB control services is well over 80%. When last measured, it was 85%.
   - Only 5 out of 8 public health facilities now provide TB control services. More of the population can be reached if services are provided at more facilities.
   - The north-west and south-east corners of the district do not currently have convenient access to TB control services.
   - There are resources available for expansion (e.g. resources for training, drugs, and supervisory visits; funds for another TB microscopy unit).

2. There are several possibilities for expansion, but Dr Karimi's first choices are Cara Health Centre and Emeral Health Post. Cara Health Centre is already involved in providing treatment, and the nurse there has expressed interest in being trained to do more. Cara Health Centre and Emeral Health Post could both be visited on the same day, which would be convenient for supervision.

   Ferro Health Post would be somewhat hard to visit for supervisory purposes given the longer distance on a dirt road, and it has a much smaller outpatient load (4 000) than Cara and Emeral combined (16 000 + 6 000). Once services are implemented in Cara and Emeral, it will be debatable whether it is more worthwhile to expand to Ferro Health Post or to some larger non-public health facility.

   Participants may note that the prison is very close to the District Office and suggest that TB control services should be implemented there. Expanding to non-public health facilities should become a focus only when most public health facilities are providing TB control services according to the national guidelines. However, if resources are available, TB control services could be expanded to the prison, especially since it is so close.

3. Participants may have considered whether to put the new TB microscopy unit at Bella Health Centre or Cara Health Centre. Dr Karimi decided on Cara Health Centre, for the following reasons:

   - Cara Health Centre is farther away from Agraville than Bella Health Centre, so sputum transport to Agraville Hospital would be more difficult.
   - If the new TB microscopy unit is placed in Cara Health Centre, it can serve Emeral Health Post and possibly Denali Health Post as well. (It could serve three facilities, instead of just two if placed at Bella. The outpatient load for Cara, Emeral, and Denali combined is 30 000, which is greater than 27 100 at Bella and High Road combined.)
   - Plans are being made to solve transportation problems at High Road Health Post, so they should be able to send sputum samples to Agraville Hospital more easily.

4. The target should state that 7 out of 8 public health facilities will provide TB control services in 2005.

Answers to 5 and 6 will be based on the participant's own situation in his or her district.

5. Exercise D: Written exercise followed by individual feedback and group discussion – Completing a *District TB Plan*

Individual work

Participants should follow the instructions given in the module to complete the *District TB Plan* and *Planning Chart* for Faba District. Participants will need to refer to the flipchart pages from the discussions in Exercises B and C, so have these available and visible.

As participants work on this exercise, watch to be sure that they know where to record activities on the *District TB Plan* and the *Planning Chart.*

You may need to remind participants that section A of the *District TB Plan* includes activities to maintain and improve **existing** TB control services. Section B includes activities related to **expansion** of TB control services. There are training activities, laboratory activities, etc. in both sections A and B.

Participants should obtain individual feedback on steps 1–6 of the exercise. Refer to the first page of the answer sheets for Exercise D, which is based on the answer sheets for the previous Exercises B and C. If participants reached different answers in the previous exercises, then the activities that they list on the *District TB Plan* may be quite different. That is fine; just be sure that they have thought logically about the activities.

Give each participant a copy of the first page of the answer sheets for Exercise D.

Discussion

After all participants have received individual feedback, lead a brief group discussion of question 7. Encourage participants to thoughtfully consider the practicality of the plan. Use the points for discussion provided on the second page of the answer sheets. Participants may have other ideas as well.

Be sure to discuss the pros and cons of different options for supervisory visits to Cara Health Centre, and Denali and Emeral health posts. Be sure that participants understand that it is critical to spend enough time at each health facility to do a proper supervisory visit, as described in module C: *Conduct Supervisory Visits for TB Control.* It is **not** acceptable just to collect data from the *TB Treatment Cards* and then leave. Even if a health facility starts treatment for only one TB case per month, it is important to conduct a proper visit; with a small number of cases, the staff may need even more attention to stay motivated and keep their skills sharp.

After the group discussion, give participants the second page of the answer sheets for Exercise D. Ask participants to return to page 18 of the module and read and work until the end of the module.

Possible Answers to Exercise D

Individual work

Section A4: Laboratory support

Some of the following activities (or others listed by the group in Exercise B) should be added to the *District TB Plan* in section A4:

c) Arrange to pay bus driver to deliver sputum samples to Bella Health Centre.
d) Find out who are regular travellers on the road, and determine whether they can help with transportation of sputum samples. (Regular travellers could include trucks, taxis, or representatives of NGOs or community organizations.)
e) Discuss with Nurse Natore what type of transportation would be most useful and appropriate.
f) Research availability of new and used motorcycles or vehicles, types, features, fuel, and maintenance costs, etc.
g) Meet with business associations to request donation or funds for motorcycle or other vehicle.
h) Meet with other health programmes (e.g. immunization) to discuss sharing expense and use of motorcycle or other vehicle.
i) Purchase motorcycle or vehicle (using funds from budget plus funds from other sources).

The persons listed as responsible should be logical, e.g. District TB Coordinator for all, as well as Nurse Natore for "e", as well as head of the business association or other health programmes in "g" and "h". Timing should be logical, probably early in the year.

Section B2: Training

The following training activities (or others that seem logical based on the group's decisions on where to expand) should be listed in section B2 of the *District TB Plan*:

a) Arrange for 2 nurses from Cara HC and Emeral HP to take February course offered by province in *Management of Tuberculosis*. – TB coord., 7 Jan
b) Health workers attend training above. – 2 nurses, 7–11 Feb
c) Provide on-the-job training of additional staff at Cara and Emeral who will ask about cough. – TB coord., 3rd week of March

Training for a microscopist for Cara Health Centre could be included in section B2 or in section B4 under "laboratory support."

Times for all activities should be plotted on the *Planning Chart*.

Possible Answers to Exercise D, continued

Points for discussion

Possible problems that participants may notice with this plan include the following:

- The District TB Coordinator really needs to meet with nurses at Cara Health Centre and Emeral Health Post before January in order to discuss plans and get commitment. Otherwise, he is signing them up for training, ordering increased supplies, etc., before getting their commitment.
- Many activities are planned for January. It will be a very busy month. Perhaps some activities could be moved to another month, or the starting date at Cara Health Centre and Emeral Health Post could be delayed to allow more time for planning, training, and preparation of the TB microscopy unit.
- Although it is a good idea to start services at Cara Health Centre and Emeral Health Post at the beginning of a quarter (1 April), it will be difficult to devote enough attention to both places at the same time. Consider delaying the start at Emeral Health Post until the next quarter.
- It is unlikely that Denali Health Post, Cara Health Centre, and Emeral Health Post can all be visited thoroughly in one day for supervisory purposes. It will probably be necessary to devote 2 days to the three facilities. Participants may discuss the pros and cons of different options, such as:

  – making two separate trips to visit the three facilities,
  – spending the night in Cara and going to Emeral the next day,
  – after TB control services are well-established at Emeral, making a long visit to Emeral every 2 months, as opposed to a hurried visit every month.

  The choice may depend on the availability of transportation and associated costs. For example, if the District TB Coordinator travels independently by motorcycle, an overnight stay would be less costly than if one had to pay and provide lodging for a driver overnight.
- The plan does not allow for impact of various holidays, and events such as World TB Day (24 March), on the schedule. Holidays and other time-consuming events should be included in the plan.

6. Self-assessment questions (self-checked)

7. 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.

Facilitator Guidelines for

J: Field Exercise – Supervisory Visit

Procedures	Feedback
1. Find out about preparations made for the field exercise or make preparations.	-----
2. Before the field exercise, distribute module J: *Field Exercise – Supervisory Visit*. Participants read pages 1–2 of the module. Introduce the field exercise and make assignments.	-----
3. Participants do the field exercise: They visit a health facility to practise assessing the items on the supervisory checklist and completing *Training Needs for TB Control*.	-----
4. Lead a discussion to analyse a performance problem observed at the health facility.	Group discussion
5. Conclude the module.	-----

1. Preparations for the field exercise

The course director will plan and schedule the visit to a health facility near the training site. (The participants may be divided into two or more groups, with each group visiting a different facility.)

The field exercise should occur on the third day of the course or later. The exact timing of the field visit during the course will depend on the health facility or facilities to be visited and the logistics of transporting participants. The visit must take place after participants have completed module C: *Conduct Supervisory Visits for TB Control.* Participants will be able to assess more of the items on the checklist if they have also completed the following modules:

- E: *Manage Drugs and Supplies for TB Control*
- F: *Ensure Laboratory Support for TB Control*

The course schedule should allow a total of at least 3 hours for the field exercise, including transportation. At least 1.5 hours should be spent at the health facility.

Planning should ensure that the visit will not disrupt the work of the health facility. The participants' activities will depend on how much time health staff can spend to talk with them and guide their activities. 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. Therefore, scheduling the visit carefully and limiting the number of participants in the facility at one time is critical. If 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.

Thoughtful scheduling and preparation at the facility is important for a successful visit. The participants' activities will also depend on the records available to them, whether TB patients are receiving treatment during the visit, and whether TB patients are willing to talk with participants.

Meeting with the staff in advance to explain the purpose of the visit can greatly increase the willingness of the staff to talk with and help the participants. With advance notice, staff can make any necessary preparations for the participants to review a number of *TB Treatment Cards*, the *Register of TB Suspects*, and any recent results of self-monitoring done by the health facility.

All the participants will not work on the same section of the checklist at the same time. Instead, they may work in pairs or groups of three on different sections.

2. Introducing the field exercise

Distribute the module in advance so that participants have time to read the first 2 pages of the module and understand what they will do. It is best to distribute the module and ask participants to read it **on the day before** the field exercise.

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 provides a copy of the *Checklist for Supervisory Visits to Health Facilities Providing TB Control Services* to use during the visit. It also includes a copy of a *District TB Register* and the chart, *Training Needs for TB Control* to complete during the visit.

Ask participants to read pages 1–2 of the module and look through the rest of it. Inform the participants of the schedule for travel to the health facility.

Making assignments

After participants have finished reading the module, describe how the field exercise will be conducted. Explain that participants will take turns (working in pairs or groups of three) assessing different sections of the checklist. For example, one pair will review *TB Treatment Cards* for sections A and B, while another will examine drugs, supplies and the environment for sections D and K. At the same time, another pair may interview a health worker, observe case detection and treatment, and speak with patients to complete sections F, G, and H. When participants assess each item, they will tick yes or no and make notes on the checklist.

Divide the participants into pairs or groups of three. Then assign each pair or group certain sections of the checklist to complete first. (If possible, make this first assignment before arriving at the health facility.) Assign sections together that use the same source of information. Sections that can be done conveniently together are grouped in bold lines in the table on page 2 of the module and listed together on the next page of this guide. Use the *Assignment Chart* on the next page to keep track of assignments.

At the health facility, you will find that some assignments require longer to complete than others. When a pair finishes one assignment, give them another and record it on the *Assignment Chart*. Keep in mind that you want to spare the staff and patients repetitive interviews. (Participants will learn about any checklist sections that they did not work on themselves when the group discusses its findings after the field exercise.)

This is not a formal data collection exercise. The information will not be tallied. Participants will discuss their findings for the purposes of learning.

Discuss with the participants that they are **practising** some of the tasks of supervision 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.

***Comment about Section A of the Supervisory Checklist*:** Participants are asked to enter information from 3 or 4 patients' *TB Treatment Cards* in the *District TB Register*. Blank register pages are provided on pages 5 and 6 of this module. Notice that this task is not practised exactly as it would be done on the job, because participants do not have the actual *District TB Register* book. In the real situation, they would register the new patients and turn back in the book to update information on patients registered previously.

Assignment Chart

Participant name	Sections of *Supervisory Checklist* assigned		
	1st assignment	2nd assignment	3rd assignment
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

3. Field Exercise: Group activity – Visiting a health facility to practise using the *Checklist for Supervisory Visits*

Travel to the health facility with the participants in your group. On arrival, find the person in charge and introduce yourselves. Ask for help and direction as needed to provide participants with access to the information sources needed to complete their first assigned section of the checklist.

Section	Information sources needed to complete sections of the checklist
A, B	*TB Treatment Cards* (3–4 per participant)
C, J	*Register of TB Suspects* (or *Tuberculosis Laboratory Register*); monitoring results; health worker responsible for monitoring at the health facility
D, K	Storage areas for supplies of anti-TB drugs; health workers who do TB case detection and treatment; access to areas where patients wait and are treated; access to microscopy unit (if there is one)
E, I	The health facility supervisor, head nurse or health worker responsible for TB control services (who can provide the names of health workers who do TB case detection and treatment and information about their training); community TB treatment supporters, if available

F, G, H Health worker(s) who do TB case detection and treatment; area where outpatients are seen; interaction of TB patient with health worker while providing directly observed treatment; TB patients who have come for treatment (they will be interviewed after they have received the treatment)

Get the participants started, with each pair or group of participants working on different sections of the checklist. When they finish, make subsequent assignments so that they can move to another area of the health facility and work on other sections. Ensure that the participants are working, and assist when any participant cannot find the information needed or is not sure what to do. If any section is not possible to complete, or if a participant has quickly completed the assignment and has nothing to do, make additional assignments.

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 – Analyse a performance problem observed at the health facility

Conduct this discussion whenever you can. You may wait until all the participants meet back in the classroom, or it may be possible to have the discussion at another time when the participants are together, such as on the grounds of the health facility or on the bus. If possible, use a flipchart or blackboard to record the group's ideas as you lead this discussion.

First, allow the participants to comment on significant things that they observed or learned. If some participants completed sections of the checklist that others did not, for example, talking to TB patients, ask them to share their findings with the group.

Continue the discussion by telling the participants that they are going to practise analysing a real performance problem, one that they identified in the supervisory visit to this health facility. Remind the participants that a performance problem is stated in the following terms:

who is not doing **what**.

Ask for a volunteer to state a performance problem identified at the health facility. If the problem is not stated in terms of who is not doing what, ask the participants to help rephrase it, so that it is in the correct form for analysis. You may list a few performance problems (and write them on a flipchart if available) and then choose one to analyse.

Refer participants to the diagram *Analysing a performance problem* on page 10 of the module. Ask a participant to consider the first of the causes listed on the left side of the page, and tell whether the cause applies. Repeat this process for each type of cause and, if it applies, ask the participant to state it specifically. For example, if the health worker lacks motivation, ask participants to state this cause more specifically, for

example, “The health worker does not like to take time to directly observe a TB patient swallowing the medication when there are many other patients waiting.”

After listing all the possible causes, go back to each cause and state one or more possible solutions to each (refer to the box to the right of the cause). Ask participants to state a specific solution. For example, if training is needed, ask them to suggest what the training should address and how it might be done.

If enough time remains, lead the group through the analysis of another performance problem. Repetition will help participants become accustomed to using this process for analysing performance problems.

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 eager 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 that 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 focused on the subject. As 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.

    If the discussion loses focus, first pause to get the group's attention, and tell them they have gone astray. Restate the original question to the group to get them focused on the main issue again.

    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 towards 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 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 districts. 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 districts. 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, and the other may record 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 that will occur the next day and agree who will do what (lead the discussion, collect the supplies, present an example using the overhead projector, 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 to 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 understand the question, may not understand certain terms used in the exercise, 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. However, if the participant has difficulty understanding the process itself, you might try using a specific 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 job 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 get most of the group members involved in the discussion. Record key ideas on a flipchart as they are mentioned. Keep your participation to a minimum, but ask questions to keep the discussion active and on track.

- At the end of the discussion, summarize the group's conclusions or important points that were made. 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.

Schedule for the course

This schedule should provide enough time to do all the work in the classroom setting. Homework is discouraged. If some participants get very far ahead while working at home, they may be bored in class the next day. Also, it is best if facilitators are present while participants are working in order to answer questions.

	Activity	Time
Day 1	Registration and opening presentation	0.5 hour
	Module A: *Introduction*	1.5 hours
	Module B: *Faba District*	
	Module C: *Conduct Supervisory Visits for TB Control*	5 hours
Day 2	Module D: *Provide Training for TB Control*	3 hours
	Module E: *Manage Drugs and Supplies for TB Control*	3.5 hours
	Prepare for field exercise	0.5 hour
Day 3	Module F: *Ensure Laboratory Support for TB Control*	4 hours
	Module J: *Field Exercise–Supervisory Visit**	3 hours
Day 4	Module G: *Monitor and Evaluate TB Control*	7 hours
	Discussion of field exercise	0.5 hour
Day 5	Module H: *Advocacy and Collaboration for TB Control*	2.5 hours
	Module I: *Develop the District Plan of Action for TB Control*	4 hours
	Closing session	0.5 hour

* Timing of the field exercise may depend upon local circumstances, the locations and hours of health facilities to be visited, etc.

Overhead

transparencies

for Modules B, G, and I

1st Qtr. 2004 **DISTRICT TUBERCULOSIS REGISTER – LEFT SIDE OF THE REGISTER BOOK**

Date of Regis-tration	District TB No.	Name	Sex M/F	Age	Complete Address	Health Facility	Date Treatment Started	Treatment Category*	Disease Site P/EP	Type of Patient**						Before treatment		
										N	R	F	D	T	O	Date	Result	Lab No.
14/1	P-1	Manov Pio	M	25	Tuga and Main St., Malani	Malani HC	15-12-03	I	P	N						9-12-03	++	2250
14/1	P-2	Lana Do	F	40	64 River Street, Malani	Malani H.C.	17-12-03	II	P		R					10-12-03	+	2267
14/1	P-3	Joma Saka	M	10	Behind Main St. Bakery Malani	Malani HC	22-12-03	III	P	N								
14/1	P-4	Munzir Nabi	M	20	Terminus Apts, Malani	Malani HC	5-1-04	III	EP	N								
14/1	P-5	Sofia Lee	F	46	Brick Lane, Malani	Malani HC	6-1-04	I	P	N						29-12-03	+++	2384
14/1	P-6	Carlo Moreno	M	34	25 Market St, Malani	Malani HC	9-1-04	I	P	N						5-1-04	+	23
14/1	P-7	Margaret Lo	F	30	Corner High and Long Streets, Malani	Malani HC	16-9-03	I	P					T		9-9-03	++	1654
14/1	P-8	Victor Singh	M	36	Behind school, Malani	Malani HC	13-1-04	I	P	N						6-1-04	+	32
16/1	P-9	Ram Patel	M	40	Centre Lane, Parma	Parma HC	19-12-03	II	P				D			11-12-03	+	2275
16/1	P-10	Maria Karna	F	36	North Market St, near hotel, Parma	Parma HC	7-1-04	III	EP	N								

***Enter the treatment category:**

CAT I: New smear-positive case, or New case (seriously ill smear-negative or seriously ill EP), e.g. 2(HRZE)/4(HR)$_3$

CAT II: Re-treatment, e.g. 2(HRZES)/1HRZE/5(HR)$_3$E$_3$

CAT III: New case (smear-negative or EP), e.g. 2(HRZ)/4(HR)$_3$

****Enter only one code:**

- **N: New** – A patient who has never had treatment for TB or who has taken anti-TB drugs for less than 1 month
- **R: Relapse** – A patient previously treated for TB who has been declared cured or treatment completed, and is diagnosed with bacteriologically positive (smear or culture) TB
- **F: Treatment after failure** – A patient who is started on a re-treatment regimen after having failed previous treatment
- **D: Treatment after default** – A patient who returns to treatment, positive bacteriologically, following interruption of treatment for 2 months or more
- **T: Transfer in** – A patient who has been transferred from another TB register to continue treatment
- **O: Other** – All cases that do not fit the above definitions. (This group includes **chronic case**, a patient who is sputum-positive at the end of a re-treatment regimen.)

† CAT I patients have follow-u examination at 2 months; C have follow-up sputum exan

Overhead B

TALLY SHEET:
QUARTERLY REPORT ON TB CASE REGISTRATION

Name of district: _____ District no.: _____	***Patients registered during _____ quarter of year_____***
Name of District TB Coordinator: _____ Signature: _____	Date of completion of this form: _____

Block 1. NEW CASES

Pulmonary			**Extrapulmonary (3)**		**Total (4)**
Smear (+) (1)	**Smear (–)** or not tested **(2)**				
	<15 years	≥15 years	<15 years	≥15 years	

Block 2. NEW PULMONARY SMEAR (+) CASES ONLY, FROM BLOCK 1 ABOVE, BY SEX AND AGE GROUP

Age group in years								
Sex	0–14	15–24	25–34	35–44	45–54	55–64	≥65	Total
M								
F								

Block 3. PREVIOUSLY TREATED CASES (Smear-positive)

Relapse	**Treatment after failure**	**Treatment after default**	**Other**

2nd Qtr. 2004 **DISTRICT TUBERCULOSIS REGISTER – LEFT SIDE OF THE REGISTER BOOK**

Date of Regis-tration	District TB No.	Name	Sex M/F	Age	Complete Address	Health Facility	Date Treatment Started	Treatment Category*	Disease Site P/EP	Type of Patient**					
										N	R	F	D	T	O
8-4	F-66	Franz Dabis	M	35	61 Cemetary Rd Agraville	Agraville Hosp	15-3	I	P	N					
8-4	F-67	Patria Maselli	F	25	Irini Road, Agraville	Agraville Hosp	17-3	I	P	N					
8-4	F-68	David Woo	M	26	50 Liberation Way Agraville	Agraville Hosp	17-3	I	P	N					
8-4	F-69	Elgin Mercier	M	22	10 Garden Street Agraville	Agraville Hosp	19-3	II	P		R				
8-4	F-70	Lucy Chen	F	28	Alley behind school, Agraville	Agraville Hosp	22-3	I	P	N					
8-4	F-71	Mina Kumar	F	32	Main Street near bakery, Agraville	Agraville Hosp	25-3	III	P	N					
8-4	F-72	Nico Kumar	M	8	Main Street near bakery, Agraville	Agraville Hosp	26-3	III	P	N					
8-4	F-73	Rona Lee	F	34	48 Founder's Rd, Agraville	Agraville Hosp	29-3	I	P	N					
8-4	F-74	Obi Wan Kanobi	M	53	Irini Village (staying with daughter in Agraville - Centre St.)	Agraville Hosp	2-4	I	P	N					
8-4	F-75	M. Charurat	M	27	President's Circle at 2nd St - Agraville	Agraville Hosp	6-4	I	P	N					

DISTRICT TUBE

Results of Sputu					
Before treatment			2 or 3 months †		
Date	Result	Lab No.	Date	Result	Lab No.
8-3	++	432	13-5	Neg	878
9-3	+	441	17-5	Neg	897
9-3	+++	447	17-5 / 21-6	+ / Neg	899 / 1124
15-3	+	477	18-6	Neg	1114
15-3	++	481	24-5	Neg	942
18-3	Neg	509	27-5	Neg	969
22-3	++	525	4-6	Neg	1023
29-3	+	576	7-6	Neg	1032
30-3	Neg	586	2-6	Neg	1011

***Enter the treatment category:**

CAT I: New smear-positive case, or New case (seriously ill smear-negative or seriously ill EP), e.g. 2(HRZE)/4(HR)$_3$

CAT II: Re-treatment, e.g. 2(HRZES)/1HRZE/5(HR)$_3$E$_3$

CAT III: New case (smear-negative or EP), e.g. 2(HRZ)/4(HR)$_3$

****Enter only one code:**

N: New – A patient who has never had treatment for TB or who has taken anti-TB drugs for less than 1 month

R: Relapse – A patient previously treated for TB who has been declared cured or treatment completed, and is diagnosed with bacteriologically positive (smear or culture) TB

F: Treatment after failure – A patient who is started on a re-treatment regimen after having failed previous treatment

D: Treatment after default – A patient who returns to treatment, positive bacteriologically, following interruption of treatment for 2 months or more

T: Transfer in – A patient who has been transferred from another TB register to continue treatment

O: Other – All cases that do not fit the above definitions. (This group includes **chronic case**, a patient who is sputum-positive at the end of a re-treatment regimen.)

(8)

† CAT I patients have follow-up sputum examination at 2 months; CAT II patients have follow-up sputum examination at 3 months.

TALLY SHEET:
QUARTERLY REPORT ON SPUTUM CONVERSION

Name of district: *Faba*	***Patients registered during*** *2nd* ***quarter of year*** *2004* *******
District no.: *4* Name of District TB Coordinator: *Oke Karimi* Signature: *OkeKarimi*	Date of completion of this form: *4/10/04*

Number of new smear-positive cases registered in quarter recorded above**	Smear not done at either 2 or 3 months	Sputum conversion at:		*Did not convert:*
		2 months	3 months	
Total converted at 2 or 3 months:				

* Quarter: This form applies to patients registered (recorded in the *District Tuberculosis Register*) in the quarter that ended 3 months ago. For example, if completing this form at the beginning of the 3rd quarter, record data on patients registered in the 1st quarter.

****** This number should match the number of new smear-positive cases in Block 1, Column 1, of the *Quarterly Report on TB Case Registration* previously completed for patients registered in this quarter.

QUARTERLY REPORT ON TB CASE REGISTRATION

Name of district: *Faba* District no.: *4* Name of District TB Coordinator: *Oke Karimi* Signature: *Oke Karimi*	***Patients registered during*** *3rd* ***quarter of year*** *2003* Date of completion of this form: *6/10/03*

Block 1. NEW CASES

Pulmonary			**Extrapulmonary (3)**		**Total (4)**
Smear (+) (1)	**Smear (–) (2)**				
	<15 years	≥15 years	<15 years	≥15 years	
32	*5*	*10*	*0*	*5*	*52*

Block 2. NEW PULMONARY SMEAR (+) CASES ONLY, FROM BLOCK 1 ABOVE, BY SEX AND AGE GROUP

	Age group in years							
Sex	0–14	15–24	25–34	35–44	45–54	55–64	≥65	Total
M		*4*	*13*	*2*	*2*			
F		*3*	*6*	*2*				

Block 3. PREVIOUSLY TREATED CASES (Smear-positive)*

Relapse	**Treatment after failure**	**Treatment after default**	**Other****
2	*2*	*3*	*0*

* In areas routinely using culture, a separate form for reporting culture-positive patients should be used.
** Other cases may include patients with unknown history of previous treatment.

Tally sheet: *Quarterly Report on Treatment Outcomes*

Name of district: *Faba*	Name of District TB Coordinator: *Oke Karimi*	***Patients registered during*** *3rd* ***quarter of year*** *2003* *
District no.: *4*	Signature: *Oke Karimi*	Date of completion of this form: *4/10/04*

Type of case		Total number of pulmonary patients registered during quarter reported on**	Treatment outcomes						Total number evaluated for outcomes: Sum of columns 1 to 6
			Cure (1)	Treatment completed (2)	Died (3)	Treatment failure (4)	Default (5)	Transfer out (and outcome unknown) (6)	
1. New	1.1 Smear (+)								
	1.2 Smear (–)								
2. Re-treatment (smear-positive)* **	2.1 Relapses								
	2.2 Treatment after failure								
	2.3 Treatment after default								

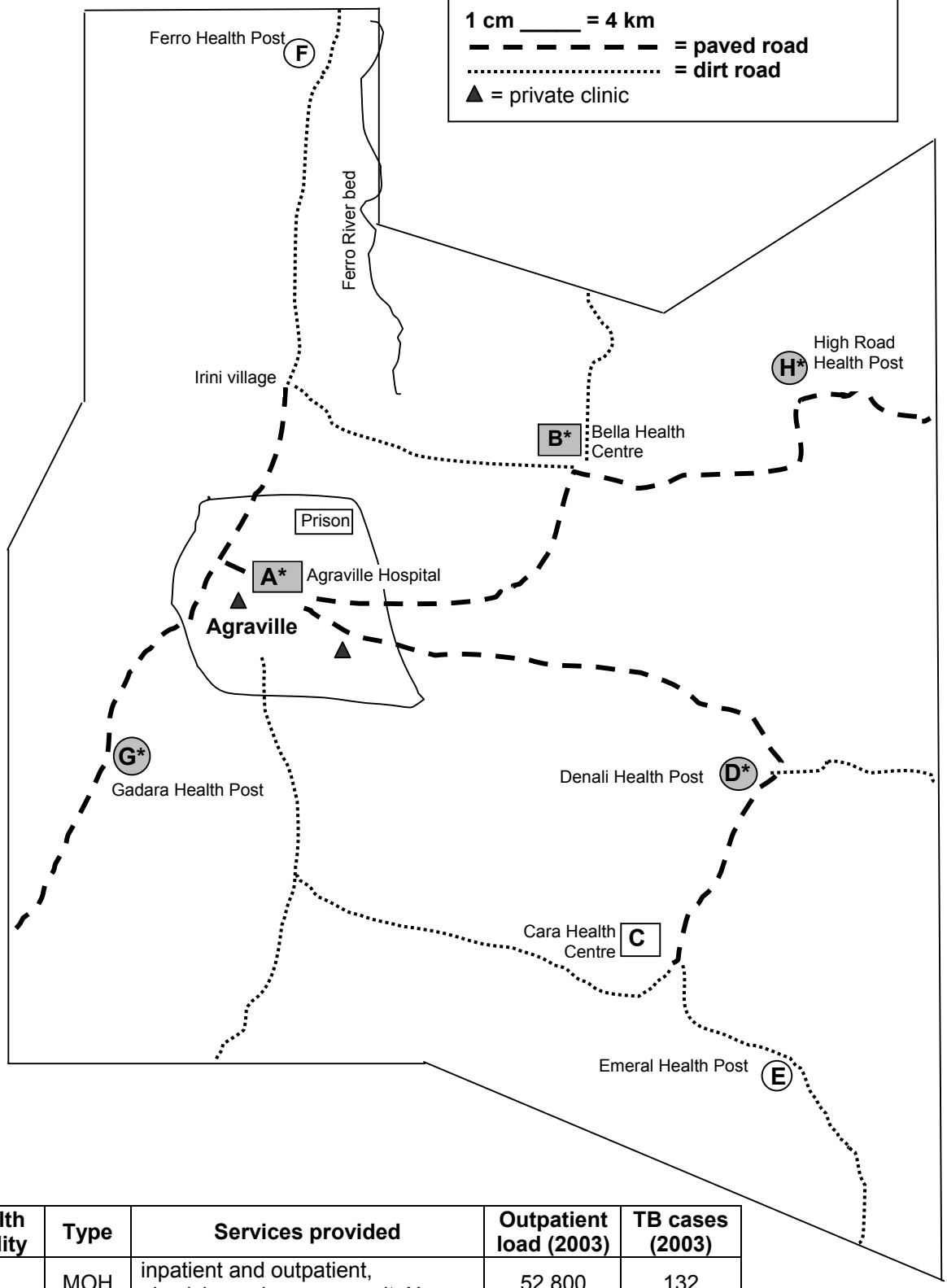
3rd Qtr 2003 **DISTRICT TU GISTER BOOK OF THE REGISTER BOOK**

Date of Regis-tration	District TB No.	Name	Treatment Category*	Disease Site P/EP	Type of Patient** N	R	F	D	T	O	Before treatment Date	Result	Lab No.	Outcome of Treatment and Date †† Cure	Com-pleted	Failure	Died	Default	Transfer out
10-7	F-119	Joshua Sako	I	P	N						9-6	+++	1048	26-12					
10-7	F-120	Abdul Mayo	I	P	N						12-6	++	1075					18-12	
10-7	F-121	Mary Rimina	III	P	N						12-6	Neg	1088		23-12				
10-7	F-122	Joseph Yamatu	II	P			F				13-6	+	1084	26-2-04					
10-7	F-123	Donaldo Mazur	I	P	N						17-6	++	1103	2-1-04					
10-7	F-124	Anton Mazur	III	P	N										27-12				
10-7	F-125	Christina Koffi	I	P	N						18-6	+	1112	6-1-04					
10-7	F-126	Salima Kunga	III	P	N						20-6	Neg	1130		2-1-04				
10-7	F-127	Angela Kamari	I	EP	N												22-8		
10-7	F-128	Yasser Carmov	I	P	N						27-6	++	1175	5-1-04					

FABA DISTRICT

Population of Faba District: 150 000
Population of Agraville: 45 000

1 cm _____ = 4 km
= paved road
= dirt road
▲ = private clinic



Health facility	Type	Services provided	Outpatient load (2003)	TB cases (2003)
A*	MOH	inpatient and outpatient, physician, microscopy unit, X-ray	52 800	132
B*	MOH	outpatient, physician	21 100	72
C	MOH	outpatient, nurse	16 000	
D*	MOH	outpatient, nurse	8 000	17
E	MOH	outpatient, nurse	6 000	
F	MOH	outpatient, nurse	4 000	
G*	MOH	outpatient, nurse	8 000	12
H*	MOH	outpatient, nurse	6 000	7

* providing TB services in 2004
MOH = ministry of health