

FACILITATOR'S GUIDE



MANAGING TB AT THE RAION LEVEL



World
Health
Organization

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Introduction to Facilitator's Guide

What methods of instruction are used in the course?

- The majority of the course material will not be presented by lecture. Instead, each participant will be given a set of instructional booklets, called modules that contain the basic information to be learned. Before the participants begin each module, there will be a brief introductory lecture explaining the module content. The modules will end with a group discussion on what was learned. In some instances, there will be group discussions during the module.
- The modules are designed to help Raion TB Coordinators develop skills needed to manage a Tuberculosis Program at the raion level. These skills are developed by asking each participant to read about the concepts and techniques in the modules and to apply these new skills to the situations described in the individual exercises and group activities.
- Each participant is encouraged to work at his/her own speed. For maximum learning to occur, each participant should proceed at their own pace. This course is structured so that each participant is able to perform the exercises at his own pace, and then discuss the answers and any problems or questions he/she might have with a facilitator. The only time in the course when learning is group paced is for group discussions and group exercises.
- Each participant is encouraged to discuss any problems or questions with a facilitator. The participant will receive prompt feedback from the facilitator on completed exercises. This gives the participant a chance to know how well he/she has done and what improvements could be made.

What is a Facilitator?

In your assignment to teach the course, you are a facilitator. The role of the facilitator is quite different from that of a lecturer or course instructor. A facilitator is a person who helps the participants learn, usually through individual and small group discussions. For facilitators to give enough attention to each participant, a ratio of one facilitator to five participants is desired.

As a facilitator, you need to be very familiar with the material being taught. It is your job to give explanations, do demonstrations, answer questions, talk with participants about their answers to exercises, conduct role-plays, lead group discussions, and generally give participants any help they need to successfully complete the course.

What will you do as a Facilitator?

As a facilitator, you do 3 basic things:

1. You will **INSTRUCT**.

- Introduce each module according to the specific guidelines for that module. Make sure each participant understands how to work through the materials, and what he/she is expected to do in the exercises.
- Answer the participant's questions.
- Make clear any information that the participant finds confusing.
- Promptly evaluate each participant's work and give correct answers.
- Guide group activities, such as discussions and role-plays, in order to make sure that the learning objectives are accomplished.
- Identify weaknesses in a participant's understanding and skills, and provide explanations to correct them. Also, if a participant has difficulty with the language used, make sure he receives the help needed to understand the concepts.
- Help the participants understand how to apply the skills taught in the course to practical problems in actual situations found in their raion.
- Lead group discussions at the end of each module according to the specific guidelines for that module.
- Ask questions to spark discussion. Use open-ended questions to get participants to share information and experience. (Open-ended questions are questions that require more than a "yes" or "no" answer.)
- When you ask a question, pause long enough to give participants a chance to respond.

2. You will **MOTIVATE**.

- Demonstrate enthusiasm for the topics covered in the course and for the work that the participants are doing.
- Compliment each participant for correct answers, improvements, or progress.
- Encourage participants to explore how the topics apply to their raion activities and how the skills will help them improve the target cure rate for New pulmonary smear-positive patients.

3. You will **MANAGE**.
 - Make sure participants have access to the correct supplies and materials when they need them.
 - Make sure there are no other major obstacles to learning (such as too much noise, not enough light, or not enough work space).
 - Monitor the progress of each participant.

How do you do these things?

- Show enthusiasm for the topics covered in the course and for the work that the participants are doing.
- Be attentive to each participant's questions and needs. Encourage the participants to come to you at any time with questions or comments. Be available during scheduled times.
- Watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space, not writing answers, or not turning pages. These are clues that the participant may need help.
- Promote a friendly, cooperative relationship. Respond positively to questions (by saying, for example, "Yes, I see what you mean," or "That is a good question"). Listen to the questions and try to address the participant's concerns, rather than rapidly giving the "correct" answer.
- Always take enough time with each participant to answer his 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.
- Avoid being too much of a showman. Enthusiasm (and keeping the participants awake) is great, but learning is most important. Keep watching to ensure that participants understand the materials. Difficult points may require you to slow down and work carefully with individuals.
- 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.

What is included in this Facilitator's Guide?

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

- Suggestions of topics to highlight when introducing each module
- Answer sheets (or possible answers) for each exercise.
- Suggestions of questions to consider asking to generate group discussions when summarizing each module.

How should you prepare to be a facilitator?

To prepare to facilitate the work of one or more participants, you should:

- Read the facilitator and participant material, as it will be presented in the course. For example, read the notes for the facilitator in this *Managing Tuberculosis Facilitator Guide* and then read the section in the module which corresponds. Do this until you have read each module, completed ALL the exercises, and read the information about each module in the facilitator guide.
- Think about sections participants may find difficult and questions they may ask.
- Plan ways to help with difficult sections and how to answer potential questions.
- Think about the skills taught in the modules and how they can be applied to the participants' jobs. Add these to the points to make in the introduction or summary of each module.
- Plan questions to ask participants so that they will also think about how the skills can be applied in the health centers in their raions.

Checklist of instructional materials needed for the course.

Materials Needed	Number Needed
Facilitator Guide	1 for each facilitator
Set of Modules	1 for each participant 1 for each facilitator
Raion Tuberculosis Register Workbook	1 for each participant 1 for each facilitator
Set of overheads of forms and worksheets (if overhead projector is available) Alternative: Enlarged photocopies of forms and worksheets	1 set per group

Checklist of Supplies Needed for the Course

Supplies needed for each person include:

- Name tag and holder or large index card (for participants' names)
- Ball point pen
- Pencil
- Eraser
- Note pad
- Calculator (optional, but helpful)
- Calendar

Supplies needed for classroom:

Supplies needed for each group include:

- Paper clips
- 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), and erasable markers for writing on overhead transparencies

Space and Set-up Requirements

The room should have:

- Enough tables or desk area for participants to work individually
- Enough space in the room for participants to work in groups of two during the role-plays, without disturbing the rest of the class
- A place to put the instructional materials and supplies
- A table and chairs for the facilitators to use
- Adequate light and air.

Before the participants arrive, set up the room:

- Arrange the chairs and tables in the room so that participants can easily see the flipchart or blackboard and each other for the group discussions.
- Arrange all instructional materials and supplies grouped in order of their use in the module on a table. Nametags and holders or index cards should be placed near the door where participants enter or on the tablets where they will be sitting.

Facilitator Techniques

This section of the facilitator guide describes training techniques for working with participants during the course. The following topics are covered:

- A. Techniques for Motivating and Managing Participants
- B. Techniques for Relating Modules to Participants' Jobs
- C. Techniques for Assisting Co-facilitators
- D. Techniques to Follow When Participants are Working
- E. Techniques to Follow When Providing Individual Feedback
- F. Techniques to Follow When Leading a Group Discussion
- G. Techniques to Follow When Coordinating a Role Play

A. Techniques for Motivating and Managing Participants

Encourage Interaction

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

Keep Participants Involved

- 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 formulate a response. A common mistake is to ask a question and then answer it yourself. If no one answers your question, rephrase it to help break the tension of silence. But do not do this repeatedly. Some silence is productive.

The following is a way to involve everyone in the group in answering a question. It is particularly appropriate when the answer needed is a short list of items, such as a group of activities.

1. Ask the question and tell the participants to think about it and then write down two (or more) answers. When everyone is ready, have participants call out their answers, and record them on the flipchart.
2. At this time, do not evaluate the answers; simply record them. When all participants have contributed, review the list, cross out redundant items and combine items that participants agree are similar. The discussion should be limited to clarifying what particular items mean and their benefits. Do not allow the discussion to criticize any items.
3. When the group understands all the items on the list, vote to select the best two (or however many you want).
4. Acknowledge all participants' responses. This will make the participants feel valued and encourage them and others to continue to participate. Do this with a comment, a "thank you" or a definite nod. If you think a participant has missed the point, ask for clarification or ask if another participant has a suggestion. If a participant feels his comment is ridiculed or ignored, he may withdraw from the discussion entirely or not speak voluntarily again.
5. Answer participants' questions willingly, and encourage participants to ask questions when they have them rather than to hold the questions until a later time.
6. 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.
7. 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.
8. 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."

Keep The Session Focused and Lively

1. Keep your discussions lively:
 - Present information conversationally rather than read it.
 - Move around the room and use natural hand gestures.
 - Speak clearly. Vary the pace and pitch of your voice.

- Use examples from your own experience, and ask participants for examples from their experience.
2. Write key ideas on a flipchart (or blackboard) as they are offered. (This is a good way to acknowledge responses. The speaker will know his suggestion has been heard and will have the gratification of having it recorded for the entire group to see.)
 - When recording ideas on a flipchart, use the participant's own words if possible. If you must be briefer, paraphrase the idea and check it with the participant before writing it. If you can't find the right words to paraphrase the idea, ask the participant if he can paraphrase what he said. You want to be sure the participant feels you understood and recorded his idea accurately.
 - Do not turn your back to the group for long periods as you write.
 3. Paraphrase and summarize frequently to keep participants focused on a clear idea and to keep discussions on track. Ask participants for clarification of statements as needed. Also, encourage other participants to ask a speaker to repeat or clarify his/her statement.
 - Restate the original question to the group to get them focused on the main issue again. If you feel someone will resist getting back on track, first pause to get the group's attention, tell them they have gone astray, and then restate the original question.
 - At the beginning of a discussion, write the main question on the flipchart. Having the question visible will help most participants keep themselves on track. When needed, walk to the flipchart and point to the question.
 - Do not let several participants talk at once. When this occurs, stop the talkers and assign an order for speaking. (For example, say, "Let's hear Sergei's comment first, then Nikolai's, then Elena's.") People usually will not interrupt if they know they will have a turn to talk.
 - Thank participants whose comments are succinct and to the point.
 4. Try to encourage quieter participants to contribute to the group discussions. Ask to hear from a participant in the group who has not spoken before, or walk towards someone to focus attention on him and make him feel he is being asked to talk. DO NOT embarrass or frighten a reluctant participant.

Manage Any Problems

1. 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. Vitek, 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 he 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 he 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?”)
2. Try to identify participants who have difficulty understanding or speaking the language. Speak slowly and distinctly so you can be more easily understood and encourage the participant in his efforts to communicate. Speak with the participant in his native language if necessary to clarify a point.

Reinforce Participants’ Efforts

1. As a facilitator, you will have your own style of interacting with participants. However, a few suggestions for appearing non-threatening and for reinforcing participants’ efforts include:
 - Avoid use of facial expressions or comments that could cause participants to feel ridiculed
 - Sit or bend down to be on the same level as the participant when talking
 - Do not answer hurriedly
 - Encourage participants to speak to you by allowing them time
 - Appear interested, saying, “That’s a good question/suggestion.”

2. Reinforce participants who:
 - Try hard
 - Ask for an explanation of a confusing point
 - Do a good job on an exercise
 - Participate in group discussions
 - Help other participants (without distracting them by talking at length about irrelevant matters).

B. Techniques for Relating Modules to Participants' Jobs

1. Discuss the application of new concepts to real problems -- this is the one-facilitator function that is most likely to ensure that participants begin to think about how to apply what they are learning.
2. As a first step in relating course concepts to jobs, ask participants to tell the group (or facilitator individually) their responsibilities at the raion level.
3. After finding out what participant's jobs and needs are, ask participants whether they can use the skills that were taught, and discuss any potential difficulties in implementation.
4. Reinforce participants who discuss or ask questions about practical application of skills (for example, by acknowledging and responding to their concerns).
5. Do not reject alternative methods suggested by participants; discuss alternative methods thoughtfully and compare these methods to ones in the module.

C. Techniques for Assisting Co-facilitators

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 (such as role plays, demonstrations, and drills), and agree who will prepare the demonstration, lead the drill, play each role, collect the supplies, etc.
4. Work *together* on each module rather than taking turns having sole responsibility for a module.

D. Techniques to Follow when Participants Are Working:

- Look available, interested, and ready to help.
- Encourage participants to ask questions whenever they would like some help.
- If important issues or questions arise when you are talking with an individual, make note of them to discuss later with the entire group.
- If a question arises which you feel you cannot answer adequately, obtain assistance as soon as possible from another facilitator.

E. Techniques for Providing Individual Feedback:

- Before the feedback session, refer to the appropriate pages in the Facilitator Guide to review the purpose of the exercise and what the answers are.
- Ask the participant(s) for the answers. Compare their answers to the answer sheet(s) in the Facilitator Guide.
- If the participant's answer to an exercise is not correct, ask the participant questions to determine *why* the error was made. There may be many reasons for an incorrect answer. For example, a participant may not have understood the directions or certain terms used in the exercise. The participant also may not understand a basic concept being taught.
- Once you have identified the reason(s) for the incorrect answer, help the participant correct the problem. 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, may use different procedures at his health center, may have overlooked some information about a case, or may not understand a basic process being taught.
- Summarize, or ask the participant to summarize, what was done in the exercise and why it was done. Emphasize that it is most important to learn and remember the concept or the process demonstrated by the exercise.
- Always reinforce the participants for good work by (for example):
 - Commenting on his understanding of the concept or procedure
 - Showing enthusiasm for ideas for application of the concept in his work
 - Telling the participants that what they are learning will help him do a better job in his/her raion
 - Telling the participants that you enjoy discussing these issues with him/her
 - Letting the participants know that their hard work is noticed and appreciated.

F. Techniques for 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 offered. Keep your participation to a minimum, but ask questions to keep the discussion active and on track.
- Always summarize, or ask a participant to summarize, what was discussed in the exercise. Give participants a copy of the answer sheet, if one is provided.
- Reinforce the participants for their good work by (for example):
 - Praising them for the list they compiled,
 - Commenting on their understanding of the exercise,
 - Commenting on their creative or useful suggestions for using the skills on the job,
 - Praising them for their ability to work together as a group.

G. Techniques for Coordinating a Role Play

- Before the role play, refer to the appropriate notes in this guide to remind yourself of the purpose of the role play, roles to be assigned, background information, and major points to make afterwards.
- As participants come to you for instructions before the role play,
 - Review instructions for the role-play.
 - Assign roles. For the first time through a role-play, select individuals who are confident to play the more demanding roles.
 - Give role play participants any props needed
 - Suggest that each group of three role-play participants go to a separate corner or area to work.
- Observe each group quietly, and make notes of points to cover later with the entire group.

- Interrupt only if the players are having tremendous difficulty or have strayed from the purpose of the role-play.
- When all groups have finished the role-plays, conclude the exercise with a brief discussion. First discuss things done well. Then discuss things that could be improved.
- Ask participants to describe what they learned from the role-plays.

Guidelines for Module 1: Introduction to Managing Tuberculosis at the Raion Level

Procedures*	Feedback
1. Introduce yourself and ask participants to introduce themselves.	-----
2. Do any necessary administrative tasks.	-----
3. Explain your role as facilitator.	-----
4. Distribute and introduce the <i>Introduction</i> module. Participants read the <i>Introduction</i> module.	-----
5. Conduct a group discussion about the <i>Introduction</i> module.	Group Discussion
6. Answer any questions about the <i>Introduction</i> module.	-----
7. Continue immediately to next module, <i>Identification of Tuberculosis Suspects</i> .	-----

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

1. Introduction of Yourself and Participants

Introduce yourself as a facilitator of this course and write your name on the blackboard or flipchart. Also introduce any additional facilitators, writing down their names as well.

Ask the participants to introduce themselves. As the participants introduce themselves, 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.

As part of participant introductions, explain to participants that you would like to learn more about their responsibilities related to tuberculosis. This will help you understand their situations and be a better facilitator for them. For now, you will ask each of them to tell where they work and what their job is. During the course you will further discuss what they do in their health centers.

Ask the two questions below of each participant. Note the answers on the flipchart.

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

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

2. Administrative Tasks

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

Distribute and review the course schedule and agenda.

3. *Explanation of Your Role as Facilitator*

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

- Guide them through the course activities
- Answer questions as they arise or find the answer if you do not know
- Clarify information they find confusing
- Give individual feedback on exercises where indicated
- Lead group discussions and role plays

4. *Introduction of Module*

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

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

Point out the appendices at the end of the *Introduction*

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the entire module, however the points outlined below are a suggestion of important key points that can be reviewed.

Explain: Purpose of the Course

- The course consists of a series of educational modules designed to provide knowledge and skills to staff at the Raion (District) level to implement the proven and cost-effective World Health Organization's strategy for controlling tuberculosis.
- The course provides knowledge and skills to identify TB suspects, diagnose TB disease, treat patients effectively, monitor the patients during treatment, and evaluate treatment outcomes at the end of chemotherapy. The WHO strategy for controlling TB requires knowledge of and skills in completing several cards, forms and registers. This course provides an overview of each of the relevant cards, forms and registers, needed to implement the WHO strategy for controlling TB.

Explain: The Course Materials to be Used

- This course consists of 11 instructional booklets called modules, which serve as the main resource for this course, and a workbook in which to complete the exercises found within the modules.
- Each module is based on a major task that makes up a Raion Tuberculosis Coordinator's job.

These major tasks are:

Module 1: Introduction to managing tuberculosis at the Raion level.

Module 2: Diagnosis of tuberculosis

Module 3: Administering treatment

Module 4: Registering cases

Module 5: Monitoring treatment outcomes

Module 6: Completing quarterly reports on New cases and Relapses of tuberculosis

Module 7: Completing quarterly reports on treatment results of pulmonary patients

Module 8: Maintaining regular drug supplies and other materials

Module 9: Supporting laboratory services

Module 10: Conducting supervisory visits

Module 11: Patient Education

Each module contains the following sections:

- **Introduction:** Background information to help understand the purpose of the module.
- **Objectives:** A guide to the information included in the module.
- **Reading material:** The reading material for the module, including forms.
- **Study exercises:** Sets of exercises, spread throughout the reading material, designed to help applying the knowledge learned during the course.
- **Summary:** A description of key points in the module

Explain: The World Health Organization's (WHO) Strategy for Controlling Tuberculosis

There is a proven, cost-effective TB treatment strategy known as DOTS (Directly Observed Treatment), which is recommended by the WHO and the International Union Against TB and Lung Diseases (IUATLD).

The WHO strategy for controlling TB is the most effective strategy available for controlling the TB epidemic today. It has five key components:

1. Government commitment to sustained TB control activities.
2. Case detection by sputum smear microscopy among symptomatic patients self-reporting to health services.
3. Standardized treatment regimen of six to eight months for at least all confirmed sputum smear positive cases, with directly observed treatment (DOT).
4. A regular, uninterrupted supply of all essential anti-TB drugs.
5. A standardized recording and reporting system that allows assessment of treatment results for each patient and of the TB control program overall.

Explain: The Aim of a National TB Program

The overall objectives of TB control are

- To reduce mortality, morbidity, and disease transmission
- To prevent the development of drug resistance
- The target cure rate is at least 85%.

At the end of the introduction, ask the participants to read the *Introduction* module.

5. Conduct a Group Discussion about the Introduction Module

When everyone has finished reading the module, conduct a group discussion about the *Introduction* module. Begin the discussion by reviewing the summary section at the end of the module with the participants.

In addition, the following questions can be used to generate group discussion:

- What is the goal of this course?
- What are the names of the cards, forms, and registers used in the WHO strategy for controlling TB?
- What is the extent of the tuberculosis problem globally? In the Eastern European region? In Russia?
- What is the situation with respect to multi-drug resistant tuberculosis in Russia?
- What are the five elements of the WHO strategy for controlling TB?

- What is the target cure rate for a national TB program?
- What is the structure of the TB health care delivery network in Russia? What are the responsibilities of the different levels within the network?

6. Answer any Questions about the Introduction Module.

Ask if there are any questions about the *Introduction* or the purpose of the course.

7. Continue to the Next Module

Proceed directly to the next module, *Identification of TB Suspects*.

Guidelines for Module 2: Identification of Tuberculosis Suspects

Procedures	Feedback
1. Distribute the module <i>Identification of Tuberculosis Suspects</i> . Introduce the module.	-----
2. Ask the participants to read the module.	-----
3. Ask the participants to do Exercise 1. Explain individual feedback.	Individual
4. Conduct a group discussion about the <i>Identification of Tuberculosis Suspects</i> module	Group Discussion
5. Conclude the module and continue to the next module, <i>Administering Treatment</i> .	-----

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how to identify TB suspects from among all patients who come to the health center within the general and specialized TB medical services

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the points outlined below are a suggestion of some important key points that can be reviewed.

Explain: The Importance of Identifying Tuberculosis Suspects

Before health care workers can diagnose TB disease in a patient, they must think of the possibility of TB when they see a patient with symptoms of TB. If TB is not suspected, the likelihood of diagnosis of TB may be delayed or even overlooked, and the patient will remain ill and possibly infectious. In addition, the undiagnosed TB disease may progress which will jeopardize the likelihood of a successful treatment outcome when the diagnosis is finally made. Anyone with symptoms of TB should be evaluated for TB.

Explain: The Diagnosis of TB in the General Medical Services and the Specialized TB Services.

In Russia, the majority of suspected tuberculosis cases are initially detected by the general medical services sector. Most patients with respiratory symptoms will initially present to a primary (general) health facility. At the general medical services level, there are polyclinics in towns, general and rural hospitals, and other primary health facilities like feldsher and midwife posts. Many general health service facilities have the capability to perform an initial diagnostic examination for tuberculosis, which often includes a medical history, physical exam, sputum examination (three specimens) and a chest radiograph. If the primary physician suspects TB, the patient is referred to the specialized TB services for further TB diagnostic procedures and follow-up care.

TB diagnosis requires coordination and communication between the general medical services and the specialized TB health services. In this module, a review of the diagnostic role of the general medical service and specialized TB services will be explained.

Explain: The Importance of Sputum Examination

The cornerstone of laboratory diagnosis of tuberculosis is sputum smear examinations through direct smear microscopic examination of appropriately stained sputum specimens for tubercle bacilli. Sputum examination by microscopy is relatively quick, easy, and inexpensive and must be performed on all cases suspected of having tuberculosis. For diagnostic purposes, 3 separate sputum specimens should be collected for sputum examination, within 2 days.

Explain: The Distinction between Diagnostic Activities of the general and Specialized TB Services.

Once patients are referred to the Specialized TB Control Services from the general medical services, the diagnosis process continues. The health care worker in the specialized TB control services (TB Dispensary) will typically repeat the diagnostic procedures that were done in the general medical services. In addition to performing a medical history, chest x-ray, and sputum examination, sputum is usually sent for culture examination and drug susceptibility testing.

Culture of specimens is much more costly than microcopy and requires at least 8 weeks before examination results are obtained. Laboratories with culture facilities typically exist at the Oblast level.

Once sputum is cultured, drug sensitivity testing can be performed to determine which drugs will kill the tubercle bacilli that are causing disease in a particular patient. Tubercle bacilli that are killed by a particular drug are sensitive to that drug, whereas those that can grow even in the presence of a particular drug are resistant to that drug. The results of drug sensitivity testing can help health care workers choose the appropriate drugs to treat patients who may have strains of TB that are resistant to the typical first-line TB drugs.

Explain: Sputum Collection Procedures

Correct collection of sputum specimens is important to ensure that results are accurate and reliable. There are four factors to consider before sputum is collected:

1. Sputum Collection Setting
2. Sputum Containers
3. Health Care Worker Safety
4. Patient Education and Instructions

In addition, sputum specimen storage and transport are other important issues.

Explain: Forms Needed to Document the Collection and Results of Sputum Examinations

When collecting sputum samples for sputum smear examination, health care workers should fill out the *Request for Sputum Examination Form (TB 05)* and include the form with the sputum samples when they are sent to the laboratory for examination.

When collecting sputum samples for culture and drug sensitivity examination, health care workers should fill out the *Request for Culture/Sensitivity Form (TB 06)* and include the form with the sputum samples when they are sent to the laboratory for examination.

Add any additional points you wish to make when you introduce the module

2. Ask the Participants to Read the Module.

Participants will read the module which will be a lot of reading for some who are not accustomed to extended reading. You will need to watch whether some participants are struggling. If a participant is visibly struggling, go to that individual and ask (quietly) if he has a question, or a problem that you can help with. You may find the participant has a problem with the reading and needs help with translation, or needs reading glasses. 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. Ask the participants to do Exercise 1.
Explain Individual Feedback.**

Ask participants to do Exercise 1 as individual work.

Explain individual work and individual feedback:

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

Explain that individual feedback is a semi-private discussion between you and a facilitator. You and the facilitator will review your work and compare it with the answer sheet. If you have made errors, the facilitator will help clarify any misunderstanding. The purpose is to help you learn.

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

Watch as participants begin working on this first individual exercise. Be sure that they are not confused about what to do, stuck without a pencil, etc. Some participants need a bit of encouragement to begin writing in the module book.

When you see a participant has finished the exercise, go to him or her, or ask the participant to come to you. If individual feedback is a new method to the participants, most are likely to wait to see whether and how individual feedback happens. Some may decide they would rather not get individual feedback, and will just not come for feedback. 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 the participant if he or she has questions, and listen attentively to the question. Answer carefully. Participants will be assessing whether you are really interested in giving them help, and whether feedback is likely to be embarrassing or punitive. It is essential that you build each participant's confidence that interactions with a facilitator will be helpful or pleasant, not punishing. When interactions are positive and participants feel that the facilitators are interested in their work, they are more motivated to do the work well.

When a participant comes to you for feedback, sit down with the participant and look at the *participant's work*. Compare it to the answer sheet. If the participant has made errors, do not simply correct them. Ask the participant to explain what he did. If the participant has questions, answer them. Try to find out the reason for the misunderstanding and clarify. The purpose of the interaction is to give feedback on what the participant did correctly, and to correct any misunderstandings before they become beliefs. At the end of the interaction, you should feel that the participant would be able to do the exercise correctly.

Give the participant a copy of the answer sheets to keep. Thank or congratulate the participant for his work. Then ask the participant to review the Summary section.

Answers to Exercise 1

Participants practice determining if a health worker has collected and transported sputum properly.

Participants read information about a health worker who is collecting sputum from a tuberculosis suspect. The participant pretends he/she is observing the health worker. Using the guidelines explained within this module, participants determine if the health worker has collected and transported sputum properly. When participants complete their work, they will bring it to a facilitator for review.

1. Did Nina collect the correct number of sputum specimens from Anna Ivanovna? Explain your answer.

No. Nina should have collected 3 specimens from Anna Ivanovna. Before Anna left the health care facility on Monday, Nina should have given her a sputum container and instructed her to collect an early morning specimen from home before returning to the clinic the next day (Day 2). The patient should have been told to cough up sputum into the collection container upon waking the following morning.

2. Did Nina collect sputum from Anna Ivanovna in a good area? Explain your answer.

No. Whenever possible, in health care facilities sputum should be collected in a separate room designated for this activity that is properly ventilated. If possible, the room should have negative pressure. If this cannot be done, sputum should be collected in an empty room with open windows, which is used only for this purpose only. Finally, an alternative is for the sputum to be collected outside in the open air.

When patients collect sputum at home, they should collect the sputum outdoors in the open air. If the patient collects their sputum indoors, sputum should be collected away from others and in front of an open window.

In addition, Nina should not have been standing next to Anna when she coughed up her sputum. A specimen collected under the supervision of a health worker is likely to be better than a specimen produced by a patient without any guidance from a health worker. However, health care workers who supervise patients who produce sputum should take the appropriate infection control precautions. The health worker should use a mask and rubber gloves. If possible, the health care worker should leave the room when the patient coughs up sputum and observe the patient through a door with a glass window.

- 3. Was the cupboard above the boiling pan a good place to store the specimens? Explain your answer.**

No. Sputum specimens need to be stored in a cool place. When the boiling pan is in use, the air in the cupboard would become warm or hot. If refrigeration is not available, chemical preservation should be used.

- 4. Did the specimens arrive at the microscopy laboratory in the correct amount of time? Explain your answer.**

No. Nina did not store the sputum specimens under the proper conditions. They should be sent to laboratory no later Wednesday. If the sputum specimens are not sent to the laboratory immediately, the health care worker should store them in the refrigerator or in a special chemical presentation. Nina did not refrigerate or use chemical preservations when storing the specimens.

- 5. Did Nina need to wash her hands after collecting the sputum specimen? Explain your answer.**

Yes. Health care workers who supervise patients who produce sputum should take the appropriate infection control precautions. Hand washing is one infection control procedure. This will prevent Nina from contaminating another patient's sputum specimen. The health worker should use a mask and rubber gloves as well.

Guidelines for Module 3: Administering Treatment

Procedures	Feedback
1. Distribute the module <i>Administering Treatment</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1.	Individual
3. Conduct a group discussion about the <i>Administering Treatment</i> module.	Group Discussion
4. Conclude the module and continue to the next module, <i>Registering Cases</i> .	-----

1. *Introducing The Module*

Distribute the module to participants. Explain that this module describes how to administer treatment to TB patients.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the points outlined below are a suggestion of some important key points that can be reviewed.

Explain: Direct Observation of Treatment

Directly observed treatment (DOT) is a technique of watching patients take their medications. DOT is a key component of the WHO strategy for controlling tuberculosis. DOT requires that health workers watch, verify, and document that patients swallow the prescribed drugs.

Explain: Practicalities of Administering Treatment

Treatment of tuberculosis is divided into two phases: the intensive phase and the continuation phase. During the initial intensive phase of treatment there is rapid killing of the tubercle bacilli. In the continuation phase, fewer drugs are necessary, but they are needed for a longer period of time.

Taking advantage of the existing in-patient infrastructure and to ensure compliance with therapy, most patients will be hospitalized for the initial phase of treatment. Most hospitalized patients will be discharged after completing the initial intensive phase of treatment (2-3 months). During the continuation phase of treatment (a duration of four months for new cases and five months for re-treatment cases), treatment will be administered on an ambulatory basis and supervised by a tuberculosis specialist or primary health care worker (physician, feldsher, or nurse). Direct observation is required to ensure that the patient actually takes all the drugs prescribed.

Explain: What is a TB Patient Treatment Card?

It is very important for the hospital or health unit where the patient is receiving treatment to maintain a *TB Patient Treatment Card (TB 01)* for each patient. Information on the *TB Patient Treatment Card (TB 01)* will be used to administer, manage, and monitor treatment. In addition, some information will be used to complete other records, such as the *TB Patient Register (TB 03)*.

The *TB Patient Treatment Card (TB 01)* contains important information about a patient, including:

- Patient registration number
- Patient demographics and locating information
- Disease classification and type of patient
- Treatment category and prescribed standard regimens, and drug doses during the intensive and continuation phase of treatment.
- Results of sputum examination (smear and culture) and chest x-ray before and during treatment
- Results of drug susceptibility tests
- Record of daily drug doses administered during the intensive and continuation phases of treatment.
- Treatment outcome

The majority of this module is dedicated to reviewing the *TB Patient Treatment Card (TB 01)*.

Explain: WHO Patient Types

In the Russia/WHO collaborative program, every TB patient that begins a new course of treatment is newly registered in the system. A new registration at the time a new treatment course is initiated allows a program to follow cohorts of patients who begin treatment in the same quarter. It also facilitates the evaluation of program success by looking at treatment outcomes of each group. A patient can be registered as one of the following patient types: New, Relapse, Treatment After Default, Treatment after Failure, Transferred in, or Other.

Explain: WHO Treatment Categories

For registration purposes, patients are assigned to one of three categories (1, 2, or 3) of drug treatment based on location and extent of disease, history of previous treatment, and sputum smear results. Once the treatment category is determined, patients are prescribed standardized treatment regimens to cure their disease, according to the pre-treatment bacteriological status, history of previous treatment with anti-tuberculosis drugs, and severity of the disease.

Explain: How to Facilitate Adherence to Treatment

The patient's compliance to treatment is a key factor in treatment success. It is vital for the Raion TB Coordinator to ensure that health staff serving TB patients are polite and considerate to the patient's needs at every contact with the patient. In addition, when possible, TB coordinators should maximize treatment success by organizing TB services so that the patient has TB treatment close to home or the workplace. If a patient does not keep appointments to receive treatment, it is necessary to follow-up and inquire after the patient immediately. Contact addresses that were previously obtained should be used to help locate patients who default on treatment.

Explain: WHO Treatment Outcomes

Treatment outcome is determined at the end of treatment based on the data from the TB Patient Treatment Card (TB 01) according to treatment outcome definitions. Treatment outcomes include:

CURED (CONFIRMED BY SMEAR)
CURED (CONFIRMED BY CULTURE)
TREATMENT COMPLETED
FAILURE (CONFIRMED BY SMEAR)
FAILURE (CONFIRMED BY CULTURE)
DEFAULT
TRANSFERRED OUT
DIED

Add any additional points you wish to make when you introduce the module.

2. Ask the Participants To Do Exercise 1.

Answers to Exercise 1

The purpose of this exercise is to give participants an opportunity to practice completing *TB Patient Treatment Card (TB 01)*, using case information and *Request for Sputum Examination forms (TB 05)* (if applicable).

- Participants use case information, *Request for Sputum Microscopy Examination forms (TB 05)* (if applicable) and complete a *TB Patient Treatment Card (TB 01)* for the appropriate person. When participants complete their work, they will bring it to a facilitator for review.
- Review the participant's work. If a participant recorded any information incorrectly refer him to the appropriate page(s) in the module so he can read how the patient information is entered on the card. Make sure the participant corrects any mistakes and understands how to complete *TB Patient Treatment Cards (TB 01)*.

Registration number (from TB 03)

Year 2002

Quarter 2

Site of registration: _____

Patient Treatment Card (TB 01)

1. Name Kuzmin Taras Olegovich
2. Address and tel.: Lugovaya St. 12, Zakharovo vil.
3. Name, address and tel. of the next of kin: Kuzmina Tatyana Olegovna (sister)
Lugovaya St. 25, Zakharovo vil.
4. Sex: M F
5. Date of birth: 12/04/62
6. Age (40)

7. Date of symptom onset: _____
8. Date when presented to physician
with these symptoms: _____
9. Date when diagnosis was established: _____

1.4 Categories and standard treatment regimens in the intensive phase.

Category 1	Category 2	Category 3
2HRZE(S) <input checked="" type="checkbox"/>	2A - 2 HRZES + 1 HRZE <input type="checkbox"/> 2B* - 3 HRZE+Pt+Cap/K+[Fq] <input type="checkbox"/>	2 HRZE <input type="checkbox"/>

1.5 Intensive phase. Treatment regimen and TB drug dosage

** (indicate the daily dose in g).

Prescription Date	H	R	Z	E	S	Fq*	Cap*				
4/04/02	0.3	0.6	1.5	1.2							

* To be used only in specialized oblast-level centers.

** Drugs: Isoniazid (H); Rifampicin (R); Pyrazinamide (Z);

Streptomycin (S); Ethambutol (E); Fluoroquinolones (Fq); Capreomycin (Cap).

1.3 Examination results.

Results of sputum examinations									X-ray (lung cavitation)		Weight (kg)
Month/treatment phase	Lab #	Test date	Smear	Culture	Drug sensitivity (S/R)				Date	Result (+/-)	
					H	R	S	E			
0*/GMS	52	25/03/02	2+						25/03/02	+	
0**/TB Service	73	4/04/02	3+								62
2/3/ intensive phase											
3/4/ intensive phase extension											
5/ continuation phase											
At the end of treatment											

1.6 Intake of daily doses.

Day Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number of doses taken		

Instructions for recording drug intake: Observed drug intake: nurse's initials; Non-observed drug intake: X - X; Drugs not taken: leave the cell empty Number of daily doses taken in the intensive phase: _____

1.1 Disease Classification

Pulmonary TB <input checked="" type="checkbox"/>	Extrapulmonary TB <input type="checkbox"/>
Clinical form of pulmonary TB	Organ(s) _____ Tuberculous pleuritis, upper respiratory TB or intrathoracic lymph node TB <input type="checkbox"/>

1.2 Patient Type

NEW CASE <input checked="" type="checkbox"/>	TREATMENT AFTER FAILURE <input type="checkbox"/>
	RETURN AFTER DEFAULT <input type="checkbox"/>
	TRANSFERRED IN <input type="checkbox"/>
RELAPSE <input type="checkbox"/>	OTHERS <input type="checkbox"/>

Registration number (from TB 03):

Year 2002 Quarter 2

Site of registration: _____

Patient Treatment Card (TB 01)

1. Name Glukhova Praskovia Fedorovna
2. Address and tel.: Tsvetochnaya St. 1, Khlupino vil.
3. Name, address and tel. of the next of kin: Glukhov Nikolai (son), Lenina St. 15, Khlupino vil.
4. Sex: M F
5. Date of birth: 15/05/44
6. Age (57)

7. Date of symptom onset: _____
8. Date when presented to physician with these symptoms: _____
9. Date when diagnosis was established: _____

1.4 Categories and standard treatment regimens in the intensive phase.

Category 1	Category 2	Category 3
2HRZE(S) <input type="checkbox"/>	2A – 2 HRZES + 1 HRZE <input checked="" type="checkbox"/> 2B* – 3 HRZE+Pt+Cap/K+[Fq] <input type="checkbox"/>	2 HRZE <input type="checkbox"/>

1.5 Intensive phase. Treatment regimen and TB drug dosage

** (indicate the daily dose in g).

Prescription Date	H	R	Z	E	S	Fq*	Cap*			
6/04/02	0.3	0.6	1.5	1.2	1.0					

* To be used only in specialized oblast-level centers.

** Drugs: Isoniazid (H); Rifampicin (R); Pyrazinamide (Z); Streptomycin (S); Ethambutol (E); Fluoroquinolones (Fq); Capreomycin (Cap).

1.3 Examination results.

Results of sputum examinations									X-ray (lung cavitation)		Weight (kg)
Month/treatment phase	Lab #	Test date	Smear	Culture	Drug sensitivity (S/R)				Date	Result (+/-)	
					H	R	S	E			
0*/GMS											
0**/TB Service	32	6/04/02	3+						5/04/02	+	63
2/3/ intensive phase											
3/4/ intensive phase extension											
5/ continuation phase											
At the end of treatment											

1.6 Intake of daily doses.

Day Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number of doses taken	

Instructions for recording drug intake: Observed drug intake: nurse's initials; Non-observed drug intake: X – X; Drugs not taken: leave the cell empty Number of daily doses taken in the intensive phase: _____

Registration number (from TB 03) 56/14

Year 2002 Quarter 2

Site of registration: _____

Patient Treatment Card (TB 01)

- Name Nikolaenko Oleg Aleksandrovich
- Address and tel.: Sadovaya St 34, Skorotovo vil.
- Name, address and tel. of the next of kin: Nikolaenko Zinaida Mikhailovna (mother), Sadovaya St. 34, Skorotovo vil.
- Sex: M F
- Date of birth: 20/02/82
- Age (20)

- Date of symptom onset: _____
- Date when presented to physician with these symptoms: _____

9. Date when diagnosis was established: _____

1.4 Categories and standard treatment regimens in the intensive phase.

Category 1	Category 2	Category 3
2HRZE(S) <input type="checkbox"/>	2A - 2 HRZES + 1 HRZE <input type="checkbox"/> 2B* - 3 HRZE+Pt+Cap/K+[Fq] <input type="checkbox"/>	2 HRZE <input checked="" type="checkbox"/>

1.5 Intensive phase. Treatment regimen and TB drug dosage

** (indicate the daily dose in g).

Prescription Date	H	R	Z	E	S	Fq*	Cap*				
28/03/02	0.3	0.6	1.5	1.2							

* To be used only in specialized oblast-level centers.

** Drugs: Isoniazid (H); Rifampicin (R); Pyrazinamide (Z); Streptomycin (S); Ethambutol (E); Fluoroquinolones (Fq); Capreomycin (Cap).

1.3 Examination results.

Month/treatment phase	Lab #	Test date	Smear	Culture	Drug sensitivity (S/R)				X-ray (lung cavitation)		Weight (kg)
					H	R	S	E	Date	Result (+/-)	
					0*/GMS						
0**/TB Service	29	26/03/02	Neg						26/03/02	+	65
2/3/ intensive phase											
3/4/ intensive phase extension											
5/ continuation phase											
At the end of treatment											

1.6 Intake of daily doses.

Day Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Number of doses taken	
	March																													TI	RA		SE
April	TI	RA	SE	TI	TI	RA	SE	TI	TI	RA	SE	TI	TI	RA	SE	TI	TI	RA	SE	TI	TI	RA	SE	TI	TI	RA						26	

Instructions for recording drug intake: Observed drug intake: nurse's initials; Non-observed drug intake: X - X; Drugs not taken: leave the cell empty

Number of daily doses taken in the intensive phase: 30

3. **Conduct a Group Discussion about the Administering Treatment Module**

After participants have read the summary, there will be a group discussion of the entire *Administering Treatment* module.

When everyone has finished reading the module, conduct a group discussion about the *Administering Treatment* module. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- What kind of information does the TB Patient Treatment Card (TB 01) have?
- What is Direct Observation of Treatment (DOT)?
- What is the intensive phase of treatment?
- What is the continuation phase of treatment?
- How can you determine whether a patient on ambulatory treatment has come to the health unit to take his/ her drugs?
- What are the different types of disease classification?
- What are the Russia/WHO collaborative program “Patient Types?”
- As part of the identification of TB suspects, diagnosis of TB cases, and the monitoring of treatment what are the several examinations/types that are performed?
- What types of patients are prescribed to the different treatment categories (Category 1, 2, and 3)?
- What are the standardized regimens for each of the treatment categories (Category 1, 2, and 3)?
- What are the first-line antituberculosis drugs?
- What are the potential adverse side effects of each of the antituberculosis drugs?
- How do you manage patients who interrupt treatment?
- What are the Russia/WHO collaborative program “Treatment Outcomes?”
- What are some ways to facilitate adherence to treatment?

4. Conclude the Module and Continue to the Next Module, Registering Cases.

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Registering Cases*.

Guidelines for Module 4: Registering Cases

Procedures	Feedback
1. Distribute the module <i>Registering Cases</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1. Ask the participants to continue reading after they have completed Exercise 1	Individual Feedback
3. Ask the participants to do Exercise 2. Ask the participants to continue reading after they have completed Exercise 2.	Individual Feedback
4. Ask the participants to do Exercise 3.	Individual Feedback
5. Conduct a group discussion about the <i>Administering Treatment</i> module.	Group Discussion
6. Conclude the module and continue to the next module, <i>Monitoring treatment</i> .	-----

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how to register TB patients.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the points outlined below are a suggestion of some important key points that can be reviewed.

Explain: The importance of the TB Patient Register (TB 03)

All patients who are diagnosed with tuberculosis should be registered in the *TB Patient Register (TB 03)*. Each Raion has a *TB Patient Register (TB 03)*. Oblast-level TB centers have a copy of each Raion's *TB Patient Register (TB 03)* which are used to create the Unified Regional TB Register. This unified register represents the Oblast register of all TB patients in a hard copy.

Maintaining an accurate *TB Patient Register (TB 03)* is critical to managing an effective TB program, as well as determining TB program success. The data on the *TB Patient Register (TB 03)* is used to conduct quarterly reviews of cohorts of patients to assess the number and type of new cases registered in a quarter, as well as the treatment outcome for patients who were on treatment.

The *TB Patient Register (TB 03)* is a snapshot or a summary of the TB patient's progress on treatment. It can be an effective tool for TB Coordinator's to evaluate TB program activities.

Explain: The Information that is Included on the TB Patient Register (TB 03)

The *TB Patient Register (TB 03)* is used to document

- The number of TB cases
- Demographic data on each patient
- Treatment category
- Disease Classification
- Patient Type
- Clinical Examinations (X-ray, Sputum, Culture and Drug Sensitivity Testing)
- Treatment Outcomes

Explain: The Importance of Registering Smear-Positive TB Patients Documented in the TB Laboratory Register (TB 04) in the TB Patient Register (TB 03).

The *TB Laboratory Register (TB 04)* is used to record the results of laboratory examinations, specifically, sputum smear examinations.

During supervisory visits to laboratories, evaluation of the *TB Laboratory Register (TB 04)* should be conducted to identify any smear-positive patients who are entered in the *TB Laboratory Register (TB 04)* but who are not registered in the *TB Patient Register (TB 03)*. This may include patients who fail to return for smear examination results and cannot be located. It is critical to register these patients as they may not be receiving treatment for tuberculosis despite the documented smear-positive result in the *TB Laboratory Register (TB 04)*.

These patients also spread the infection to family members and other members of the community. These patients must be placed on the appropriate treatment immediately after being diagnosed with tuberculosis

Explain: The Importance of Registering all Patients with a TB Patient Treatment Card (TB 01) in the TB Patient Register (TB 03).

Some patients may have a *TB Patient Treatment Card (TB 01)*, and may be receiving treatment, but are not registered in the *TB Patient Register (TB 03)* for the Raion. Such patients may be found at individual treatment units or hospitals within the Raion, the Oblast TB Dispensary or Hospital, as well as non-TB facilities (i.e., psychiatric and prison hospitals). It is also important that these patients are registered in the *TB Patient Register (TB 03)* to ensure they are accounted for and to monitor and assess their treatment. Registration also facilitates the control of drugs and other supplies.

Add any additional points you wish to make when you introduce the module.

2. Ask the Participants to do Exercise 1.

Answers to Exercise 1

This exercise provides an opportunity to practice registering patients on the *TB Patient Register (TB 03)* based on information recorded on the *TB Patient Treatment Card (TB 01)*.

Participants should review *the TB Patient Treatment Cards (TB 01)* and register each of the four patients in the *TB Patient Register (TB 03)* found on pages 4 of the *Workbook*.

For the purpose of this exercise only the front side (1st page) of the *TB Patient Treatment Card (TB 01)* is provided for each patient.

When the participants complete their work, they will bring it to a facilitator for review.

Review the participant's work. If a participant filled in the *TB Patient Register (TB 03)* incorrectly, work with the participant to identify and correct any errors.

When the participant is done with this exercise, ask him or her to continue reading the module.

Serial number	Date of registration	Registration number	Full name	Sex M/F	Date of birth (age at registration)	Full address	Medical institution where the patient is registered	Treatment start date	Disease classification (P/EP)	Patient type					
								Category		New	Relapse	Treatment after failure	Transferred in	Treatment after default	Other
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	10/03	64/05	Starikh Anna Petrovna	F	10/03/61 (41)	Perdovik vil., Shirokaya, 15	Dmitrievsk city Hospital	10/03 Cat 2	P		✓				
2	18/03	75/05	Sergeev Sergei Yurievich	M	4/02/54 (40)	Valentinovo vil. Gorkogo St. 15	Dmitrievsk city Hospital	18/03 Cat. 1	P	✓					
3	25/03	87/05	Kosov Ivan Alekseevich	M	20/04/70 (31)	Novaya vil Tsentralnaya 11	Dmitrievsk city Hospital	25/03 Cat.3	P	✓					

Module 4, Exercise 1 – Answer Sheet

TB Patient Register (TB 03)

Year 2002

Examination results: write the lab number in the lower part of the cell, the result in the upper part of cell																				Treatment outcomes							
Before treatment				End of 2 nd month (new cases) End of 3 rd month (retreatment cases)			End of 3 rd month (new cases) End of 4 th month (retreatment cases)			5 th Month			End of treatment			Cured		Treatment completed	Treatment failure		Died	Default	Transferred out	Comments			
GMS	TB Service			Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear- confirmed	Culture- confirmed		Smear- confirmed	Culture- confirmed							
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Smear	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray									
2+	2+		+	-----			-----			-----			-----			-----											
15	61																										
3+	3+		+	-----			-----			-----			-----			-----											
26	65																										
Neg	Neg		+	-----			-----			-----			-----			-----											
11	58																										

3. Ask the Participants To Do Exercise 2.

Answers to Exercise 2

The purpose of this exercise is to give participants an opportunity to practice reviewing a *TB Laboratory Register (TB 04)* to make sure that all smear-positive patients have been registered in the *TB Patient Register (TB 03)*.

Participants use a sample *TB Laboratory Register (TB 04)* from the module and a list of New and Relapse smear-positive patients registered in the *TB Patient Register (TB 03)*. They will write down the name of any patient who was recorded in the *TB Laboratory Register (TB 04)*, but who was not registered in the *TB Patient Register (TB 03)*. Participants will also describe what needs to be done if a smear-positive patient has not been registered in the *TB Patient Register (TB 03)*. When the participants complete their work, they will bring it to a facilitator for review.

Review the participant's work. If a participant answered a question incorrectly, refer the participant to the appropriate pages in the module so he or she can review the procedure(s). Make sure the participant corrects any mistakes and understands how to identify smear-positive patients who were not registered and what to do with those patients.

When the participant is done with this exercise, ask him or her to continue reading the module.

1. List the name of any smear-positive patient who was not registered in the *TB Patient Register (TB 03)*.

<i>Korovkina Klavdia Petrovna</i>	<i>№ 614</i>
<i>Belova Anna Timofeevna</i>	<i>№ 621</i>
<i>Kuznetsova Olga Igorevna</i>	<i>№ 626</i>
<i>Rusova Valentina Aleksandrovna</i>	<i>№ 633</i>

2. What should you do if a smear-positive patient has not been registered in the *TB Patient Register (TB 03)*?

The Raion TB Coordinator should locate the patient as soon as possible. Once the patient is found, the sputum examination results should be explained to him/her. Make sure the patient begins treatment and that a TB Patient Treatment Card (TB 01) is completed. Register the patient in the TB Patient Register (TB 03) and explain to the patient his/her treatment regimen, the importance of taking all drugs, and other health education issues.

4. Ask the participants to do Exercise 3.

Answers to Exercise 3

This exercise highlights the importance of Raion TB Coordinators collaborating with Oblast TB Coordinators to identify TB cases that should be registered in the Raion *TB Patient Register (TB 03)*.

For this exercise, the participants assume they are the Raion TB Doctor of Nikitino Raion. During a meeting with Oblast TB Coordinator, the *TB Patient Register (TB 03)* from the Raion is cross-referenced with the Unified Oblast Register. In the review, the Raion TB Doctor discovers a patient is registered in the Unified Oblast Register, but not in the Raion TB Patient Register.

Participants will describe what they will do with the identified case and what further information is needed to register the patient.

Review the participant's work to ensure that the participant has accurately determined what do with the unregistered case.

When the participant is done with this exercise, ask him or her to read the summary of the module.

1. What should you do in this case?

If the patient has not been registered in the oblast TB Patient Register, the patient should be registered in the Nikitino Raion TB Patient Register (TB 03).

If the patient was registered in the oblast TB Patient Register (TB 03), when the patient is discharged to the Nikitino raion for treatment during the continuation phase, the patient should be registered as transferred in. If this is the case at the end of treatment, the treatment outcome should be reported back to the oblast so that it can be documented in the oblast TB Patient Register (TB 03).

2. What additional information is needed in order to register the patient in the *TB Patient Register (TB 03)*?

- *Name of patient*
- *Date when diagnosis was established*
- *Treatment start date*
- *Treatment category*
- *Patient type*
- *Diagnostic examination results (sputum and chest x-ray results) and lab numbers*
- *Treatment history*

5. Conduct a group discussion about the *Registering Cases* module

When everyone has finished reading the module, conduct a group discussion about the *Registering Cases* module. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- Why is it important to maintain a *TB Patient Register (TB 03)*?
- What information is included in the *TB Patient Register (TB 03)*?
- Where do you get information to register a patient?
- How do you make sure that all identified TB patients are register in the *TB Patient Register (TB 03)*?
- What is the *TB Laboratory Register (TB 04)*, and how can you use it to identify smear-positive patients who have not been registered in the *TB Patient Register (TB 03)*?
- How do you verify that each patient with a *TB Patient Treatment Card (TB 01)* is also registered in the *TB Patient Register (TB 03)*?

6. Conclude the module and continue to the next module, *Monitoring Treatment*.

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Monitoring Treatment*.

Guidelines for Module 5: Monitoring Treatment

Procedures	Feedback
1. Distribute the module <i>Monitoring Treatment</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1. Ask the participants to continue reading after they have completed Exercise 1	Individual Feedback
3. Ask the participants to do Exercise 2, part A and B.	Individual Feedback and Group Discussion
4. Conduct a group discussion about the <i>Monitoring Treatment</i> module.	Group Discussion
5. Conclude the module and continue to the next module, <i>Registering Cases</i> .	-----

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how to monitor TB patients on treatment

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the topics outlined below are a suggestion of some important key points that can reviewed.

Explain: Monitoring Treatment is One of the Most Important Elements of an Effective TB Control Program

Treatment monitoring can assist in assessing:

- When a patient is less infectious
- How a patient is progressing on treatment
- When the patient completes treatment

Left untreated, each person with sputum smear-positive pulmonary TB will infect on average between 10 and 15 people every year. Once a patient's sputum has converted from smear-positive to smear-negative the patient is no longer considered highly infectious and is less likely to spread the infection to others. Sputum smear conversion also assists in determining when treatment is effective. In addition, consistent negative-sputum smears at the end of treatment assist in determining when a patient with pulmonary TB has successfully completed a course treatment.

Explain: Clinical Examinations for Monitoring Treatment

Clinical examinations for treatment monitoring include sputum smear examinations, culture examinations, drug sensitivity testing, chest radiography, and physical examinations. In Russia, bacteriological assessment by smear and culture examination are common method for monitoring the progress of treatment and assessing the final treatment outcome for tuberculosis patients. However, sputum smear examination is the principal method of treatment monitoring recommended by WHO. As such, this module focuses primarily on the documenting sputum smear examination results to monitor treatment and determine treatment outcomes in smear positive pulmonary TB patients.

Explain: Practicalities of Treatment Monitoring

Taking advantage of the existing health care infrastructure in Russia, many patients will be hospitalized for the initial phase of treatment. For these patients, treatment monitoring during the initial intensive phase of treatment will typically take place at a tuberculosis hospital. During the continuation phase of treatment, administration of treatment and treatment monitoring will be conducted on an ambulatory basis. The patient will likely attend an outpatient treatment center, hospital, feldsher point, or other facility at the Raion level. Given that some patients will be moving among facilities there must be special efforts to ensure continuity of care and treatment monitoring.

If a patient is transferred out of the Raion, it is still the Raion Tuberculosis Coordinator's responsibility to ensure the proper transfer paperwork is completed and that the patient's eventual treatment outcome is recorded in the *TB Patient Register (TB 03)* where the patient originally was registered.

Explain: Treatment Monitoring Schedule

Monitoring of treatment through sputum smear examination results takes place at regular intervals during treatment. The treatment-monitoring schedule is based on whether the patient is on category 1, 2, 3 treatment regimen. For New pulmonary smear-positive cases (Category 1 patients), sputum smears are usually examined at the end of 2 months (end of 3 months if the smear was positive at the end of 2 months), beginning of 5 months and end of treatment. For pulmonary smear-positive re-treatment cases (Category 2 patients), sputum smears are usually examined at the end of 3 months (end of 4 months if the smear is positive at the end of 3 months), end of 5 months and end of treatment.

Explain: Recording Clinical Examination Results in the Patient TB Register (TB 03)

Results from clinical examinations that are taken during treatment should be recorded in the TB Patient Register (TB 03), which serves as the principal register to monitor treatment. It is the Raion Tuberculosis Coordinator's responsibility to ensure that the clinical examinations have been conducted at the correct intervals during treatment, and that the results are recorded in the appropriate columns of the "Clinical Examinations" section of the TB Patient Register (TB 03).

Explain: Recording Treatment Outcomes in TB Register (TB 03)

A treatment outcome is determined based on the review of the patient data, the date the patient completed treatment should be recorded in the appropriate column of the TB Patient Register (TB 03). WHO/Russian TB collaborative treatment outcomes include: **Cure** (confirmed by smear or culture), **Treatment Completed**, **Treatment Failure** (confirmed by smear or culture), **Died**, **Treatment Default**, **Transfer Out**.

Add any additional points you wish to make when you introduce the module.

2. Ask the Participants to do Exercise 1.**Answers to Exercise 1**

Participants record sputum smear examination results. Participants are given a *TB Patient Register page (TB 03)* for Ulyanovsky raion, *TB Patient Treatment Cards (TB 01)*, and *Request For Sputum Microscopy Examination (TB 05)* forms. Using the information on the other forms, they record sputum smear examination results on the page of *TB Patient Register (TB 03)*. When they complete their work they will bring it to a facilitator for review.

Review the participant's work. If a participant entered the results of sputum examinations incorrectly, review the procedure for recording sputum smear examination results with him or her. Make sure the participant corrects any mistakes and understands how to obtain and record sputum smear examination results.

Once participants have successfully completed Exercise 1, ask them to begin reading the next section of the module.

Module 5, Exercise 1 – Answer Sheet

TB Patient Register (TB 03)

Serial number	Date of registration	Registration number	Full name	Sex M/F	Date of birth (age at registration)	Full address	Medical institution where the patient is registered	Treatment start date	Disease classification (P/EP)	Patient type					
								Category		New	Relapse	Treatment after failure	Transferred in	Treatment after default	Other
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	4/01	4/08	Fomina Anna	F	12/06/52 (49)	Gavrilovo vil.	TB Dispansery	2/1	P	✓					
			Stepanovna			Lugovaya 34	Ulianovsky Raion	Cat. 1							
2	5/01	9/08	Nasonov Ivan	M	5/09/61 (40)	Bikovo vil.	TB Dispansery	2/1	P		✓				
			Vasilievich			Serova St., 23	Ulianovsky Raion	Cat.2							
3	14/01	15/08	Nosova Nina	F	12/01/80 (22)	Volzhansk	Volzhansk	12/1	P	✓					
			Olegovna			Novaya St.15-21	Hospital	Cat. 1							
4	14/01	20/08	Bikov Mikhail	M	25/09/67 (34)	Boldino vil.	Boldino	5/1	P	✓					
			Sergeevich			Osennyaya St.14	Hospital	Cat 2							
5	14/01	23/05	Kvasov Sergei	M	12/08/61 (40)	Volzhansk	Volzhansk	15/01	P				✓		
			Ivanovich			Rechnaya St. 5	Hospital	Cat 1							
6	19/01	27/08	Petrov Pavel	M	5/07/57 (44)	Volzhansk, Tsen-	Volzhansk	18/1	P	✓					
			Viktorovich			tralnaya St.15-21	Hospital	Cat 3							

Module 5, Exercise 1 – Answer Sheet (continued)

Year 2002

Examination results: write the lab number in the lower part of the cell, the result in the upper part of cell																			Treatment outcomes								
Before treatment				End of 2 nd month (new cases) End of 3 rd month (retreatment cases)			End of 3 rd month (new cases) End of 4 th month (retreatment cases)			5 th Month						End of treatment			Cured		Treatment completed	Treatment failure		Died	Default	Transferred out	Comments
GMS	TB Service			Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear- confirmed	Culture- confirmed		Smear- confirmed	Culture- confirmed				
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Smear	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray									
2+	2+	Pos	+	Neg	Neg	-				Neg	Neg	-				Neg											
11	61			91						308						516											
3+	3+	Pos	+	2+	Pos	-	Neg	Neg	-	Neg		-				Neg		-									
16	70			101			243			461						728											
3+	3+	Pos	+	Neg	Neg	-				2+																	
26	104			140						612																	
2+	3+	Pos	+	Neg	Neg	-				Neg	Neg	-				Neg											
47	55			162						541						711											
1+	1+	Pos	+	Neg	Neg	-				Neg	Neg	-				Neg											
51	65			119						590						729											
Neg	Neg	Neg	+	Neg	Neg	-																					
65	115			209																							

3. Ask the participants to do Exercise 2.

Answers to Exercise 2

This exercise has 2 parts. In Part A the participant will work individually. Using information from completed *TB Patient Treatment Cards (TB 01)* for cases from Dmitrievsky Raion (Raion Code - 11). The participants will practice identifying patient treatment outcomes by reviewing the *TB Patient Treatment Card (TB 01)* for each patient.

In Part B of Exercise 2 participants will work in a small group with other students and a facilitator. Using the information from the *TB Patient Treatment Card (TB 01)*, they will fill in the *TB Patient Register (TB 03)* in the Workbook. Participants should be prepared to discuss answers to the questions from Part A during a group discussion.

1. *How many months was this case in the intensive phase?*
2. *How many months was this case in the continuation phase?*
3. *How would you classify the case (for example, New pulmonary smear-positive, pulmonary smear-positive Relapse)?*
4. *What was his/her treatment regimen for the intensive phase?*
5. *Did (s)he take all drugs?*
6. *What were the results of his/her follow-up sputum smear examinations?*
7. *What was his/her treatment outcome?*

Write the participants' responses to each question on the flipchart. Once the group has finished discussing how to identify a treatment outcome, review how to record treatment outcomes on the *TB Patient Register (TB 03)*.

Module 5, Exercise 2A – Answer Sheets**Case 1 – Shmakov Oleg Vladimirovich**

1. How many months was this case in the intensive phase?

2 months

2. How many months was this case in the continuation phase?

4 months

3. How would you classify the case?

New pulmonary smear positive

4. What was his treatment regimen for the intensive phase?

Category I 2HRZE(S)

5. Did he take all his drugs?

Yes

6. What were the results of his follow-up sputum smear examinations?

End of 2nd month Neg

5 M Neg

End of treatment Neg

7. What was his treatment outcome?

Cured (confirmed by smear)- 12/07/02.

Case 2 – Zaitseva Svetlana Aleksandrovna**1. How many months was this case in the intensive phase?**

4 months

2. How many months was this case in the continuation phase?

Patient was transferred to Oblast TB Dispensary (at the end of the intensive phase the patient was still smear positive)

3. How would you classify the case?

Pulmonary smear-positive – relapse

4. What was her treatment regimen for the intensive phase?

Category 2– 2 HRZES + 1 HRZE

5. Did she take all her drugs? Yes**6. What were the results of her follow-up sputum smear examinations?**

*End of 3rd month – 2+,
End of 4th month – 2+*

7. What was her treatment outcome?

Treatment failure confirmed by culture

8. Based on sputum and culture examination where should the patient be referred?

At the end of the intensive phase of treatment, the patient was smear and culture positive. DST results indicated that the patient was resistant to H and R. The patient was referred to the Oblast for further consultation and treatment.

Case 3 – Koneva Lyubov Nikolaevna**1. How many months was this case in the intensive phase?**

2 months

2. How many months was this case in the continuation phase?

4 months

3. How would you classify the case?

Transfer in (originally classified as New pulmonary smear- negative)

4. What was her treatment regimen for the intensive phase?

Cat. 3 2HRZE

5. Did she take all her drugs? Yes**6. What were the results of her follow-up sputum smear examinations?**

End of 2nd month NEG

5 M NEG

End of treatment NEG

7. What was her treatment outcome?

Treatment completed 13/08

8. Where should the treatment outcome results be reported?

Treatment results should be sent to the Ulianovsky raion where the patient was registered.

Case 4 – Chikin Roman Vladimirovich**1. How many months was this case in the intensive phase?**

Approximately 1 month

2. How many months was this case in the continuation phase?

0 months because the patient died 25/02/02

3. How would you classify the case?

New pulmonary smear- positive

4. What was his treatment regimen for the intensive phase?

Category 1 2 HRZE(S)

5. Did he take all his drugs? Yes, until he died**6. What were the results of his follow-up sputum smear examinations?**

The patient did not have a follow-up smear examination

7. What was his treatment outcome?

25/02 – patient died

Serial number	Date of registration	Registration number	Full name	Sex M/F	Date of birth (age at registration)	Full address	Medical institution where the patient is registered	Treatment start date	Disease classification (P/EP)	Patient type					
								Category		New	Relapse	Treatment after failure	Transferred in	Treatment after default	Other
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	19/01	22/11	Shmakov Oleg	M	24/03/53 (48)	Andreevka vil.	Andreevka	19/01	P	✓					
			Vladimirovich			Lenina St.7	Hospital	Cat. 1							
2	26/01	48/11	Zaitseva Svetlana	F	16/08/43 (58)	Dmirievsk city	Dmitrievsk	26/01	P		✓				
			Aleksandrovna			Severnaya 6-24	Hospital	Cat.2							
3	12/02	80/11	Koneva Lubov	F	28/11/61 (40)	Andreevka vil.	Dmitrievsk	12/02	P				✓		
			Nikolaevna			Osennaya St.5	Hospital	Cat. 3							
4	1/02	69/11	Chikin Roman	M	14/04/82 (19)	Dubrovka vil.	Dmitrievsk	1/02	P	✓					
			Vladimirovich			Pravda St. 11	Hospital	Cat1							

Module 5, Exercise 2B – Answer Sheet (continued)

Year _____

Examination results: write the lab number in the lower part of the cell, the result in the upper part of cell																			Treatment outcomes								
Before treatment				End of 2 nd month (new cases) End of 3 rd month (retreatment cases)			End of 3 rd month (new cases) End of 4 th month (retreatment cases)			5 th Month						End of treatment			Cured		Treatment completed	Treatment failure		Died	Default	Transferred out	Comments
GMS	TB Service			Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear- confirmed	Culture- confirmed		Smear- confirmed	Culture- confirmed				
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Smear	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray	Smear	Cult.	X-ray									
3+	3+	Pos	+	Neg	Neg	-				Neg		-				Neg		-	12/07								
6	15			40						72						106											
3+	3+		+	2+	Pos	+	2+	Pos	+																		Transfer to Ob- last Dis
10	25			53			68																				
	Neg		+	Neg		+				Neg		-				Neg		-		13/08							
	22			68						93						147											
2+	3+	Pos	+																					25/02			
14	23																										

4. Conduct a Group Discussion about the Monitoring Treatment Module

After all of the participants have finished reading the module, conduct a group discussion about the *Monitoring Treatment* module. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- Why is monitoring treatment one of the most important elements of an effective tuberculosis program?
- What are the clinical examinations that are conducted as part of treatment monitoring pulmonary smear positive TB patients?
- What are the considerations for treatment monitoring if a patient moves from hospitalized to ambulatory (out-patient) treatment?
- Why is sputum examination the preferred examination for treatment monitoring?
- What patients are on a Category 1 (Category 2, Category 3) treatment regimen?
- What is the treatment regimen for Category 1 (Category 2, Category 3) patients?
- What is the treatment-monitoring schedule for Category 1 (Category 2, Category 3) patients?
- How should the treatment of extrapulmonary TB patients be monitored?
- What treatment monitoring information is documented in Patient *TB Register (TB 03)*?
- What are the treatment outcomes used in the WHO/Russian collaborative TB program?
- Where should the treatment outcome data for “transferred-in” patients be recorded?
- Where should the treatment outcome data for “transferred-out” patients be recorded?

5. Conclude the Module and Continue to the Next Module, Quarterly Reporting on Case Finding.

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Quarterly Reporting on Case Finding*.

Guidelines for Module 6: Quarterly Reporting on Case Finding

Procedures	Feedback
1. Distribute the module <i>Quarterly Reporting on Case Finding</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1.	Individual
3. Conduct a group discussion about the <i>Quarterly Reporting on Case Finding</i> module.	Group Discussion
4. Conclude the module and continue to the next module, <i>Quarterly Reporting Treatment Outcomes</i> .	-----

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how to conduct Quarterly reporting on case finding.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the topics outlined below are a suggestion of some important key points that can be reviewed.

Remind participants that the facilitators are there to help them. If they have any difficulty, they should come to a facilitator for help.

Explain: The Country's Routine Recording and Reporting System for Tuberculosis.

The routine recording and reporting system for tuberculosis provides information about the individuals who are diagnosed with tuberculosis and their treatment outcomes. The information on each individual patient is recorded on the *TB Patient Treatment Card (TB 01)* and in the *TB Patient Register (TB 03)*. On a quarterly basis, the number of New cases and Relapse that are Pulmonary smear-positive and smear negative, as well as extrapulmonary in each district is determined and reported on the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*.

The number of new cases and relapse cases for each raion are reported to the Oblast, and then to the Federal level. Similarly, each quarter, treatment outcomes for pulmonary patients registered 12 to 15 months earlier are reported on the *Quarterly Report on Treatment Results (TB 08)*. It is the responsibility of the District Tuberculosis Coordinator to complete both these quarterly reports within one week after a quarter has ended. In this module you will learn how to complete the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*. Later in the course, you will learn how to complete the Quarterly Report on Treatment Results.

Explain: Why it is Important to Complete the Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07).

The information provided on the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* is used to determine the detection rate (the number of new cases of tuberculosis detected in a defined population during a specified period of time, usually a year) in the district. The *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* is also used to plan and manage a country's tuberculosis program. For example, it is used to help determine the number of drugs and supplies to order for a quarter.

Explain: How the Year is Divided up for Reporting Purposes.

The year is divided up into 4 quarters.

- The first quarter (January, February, and March), ends on 31 March. Within the first week of April, complete the Report on New cases and Relapses for the first quarter.
- The second quarter (April, May, and June), ends on 30 June. Within the first week of July, complete the report for the second quarter.
- The third quarter (July, August, and September), ends on 30 September. During the first week of October, complete the report for the third quarter.
- The fourth quarter (October, November, and December), ends on 31 December. Within the first week of January, complete the report for the fourth quarter of the previous year.

Explain: The Types of Cases Included in the Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07), the Types Excluded and the Reasons Why.

The *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* includes spaces to record the numbers of New smear-positive cases, smear-positive Relapses, New smear-negative cases, smear-negative Relapses, and New Relapse extra-pulmonary cases. Remember that the numbers of tuberculosis cases reported on the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* will be used to determine the number of detected New tuberculosis cases and Relapses during a year in the district. Therefore, you should report only New cases and Relapses.

It is important to correctly identify smear-positive and smear-negative Relapses from other retreatment cases. Other retreatment cases, such as failures, should not be included in the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*. Failure cases were already reported in the quarter when they were initially registered as New cases. For the same reason, cases of Treatment after default are also not included in the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*.

In addition, cases which were transferred into the district should have been reported by the District Tuberculosis Coordinators in the district where they were initially registered.

Explain: Why New Smear-Positive Cases should be Reported by Age and Sex.

Detected smear-positive cases in a district should be monitored by sex and age group for two reasons:

- **To evaluate case-finding.** When the Central Unit analyses the data, they will know if the number of New cases of smear-positive tuberculosis is unexpectedly high (or unexpectedly low) for either sex in a particular age group. Unexpected increases in incidence, particularly in young age groups, should be investigated. They will also be able to see if the age distribution of New smear-positive cases is similar to the national or regional age distribution for New smear-positive cases of tuberculosis.
- **To determine the trend of tuberculosis,** that is, whether the number of cases is increasing or decreasing over time. When the Central Unit analyses the data, they will know if the number of cases for either sex, in a particular age group, is increasing or decreasing.

Add any additional points you wish to make when you introduce the module.

2. Ask the participants to do Exercise 1.

Answers to Exercise 1

- In this exercise, the participants complete an entire *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* for the Ulyanovsky raion. They are given enough information to complete the top of the report. They are also given the pages of Ulyanovsky's raion *TB Patient Register (TB 03)* for the first quarter of 2002, and a blank *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* of Tuberculosis. They use the information on the *TB Patient Register (TB 03)* to complete the report. When they complete their work, they will bring it to you for review. If they have questions while filling out the report, they may come to you for help.
- Review each participant's completed *Quarterly Report on New cases and Relapse of Tuberculosis (TB 07)*. If a participant entered information incorrectly, review the process used to obtain the numbers in question. Help participants identify errors, and refer participants to the appropriate pages in the module, if necessary. Make sure the participant corrects any mistakes and understand how to complete the report.

Table 1

Page	Smear-positive New		Smear-positive Relapses		Smear-negative new		Smear-negative Relapses		Extra-pulmonary New		Extra-pulmonary Relapses	
	M	F	M	F	M	F	M	F	M	F	M	F
A	/	////	//		/							
B	///	///			/				/			
C	///	///	/			/		/	/			
D	//	/	/		/	///	/				/	
Total	9	11	4	0	3	4	1	1	2	0	1	0

Table 2

Page	0-14		15-24		25-34		35-44		45-54		55-64		65 or more	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
A				/	/			//		/				
B					/	/	//	//						
C			/		/	/	/	/		/				
D								/	/		/			
Total	0	0	1	1	3	2	3	6	1	2	1	0	0	0

Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)

1. Administrative territory: Kaluzhskaya Oblast

2. Raion/Raion code: Ulianovsky raion_08

3. Patients registered in 1
Quarter of the Year 2002

4. Date when report is
filled: 05 / 04 / 2002

5. Raion TB Coordinator Name/Signature: Ribakova O.N.

6. Table 1

Pulmonary TB									Extrapulmonary TB				Total		
Positive smear			Negative smear						New cases	Relapses					
New cases		Relapses	New cases		Relapses										
1		2	3		4		5		6		7				
M	F	Total	M	F	M	F	M	F	M	F	M	F	M	F	Total
9	11	20	4	0	3	4	1	1	2	0	1	0	20	16	36

7. Table 2. Age and sex distribution of sputum smear-positive new cases

Age groups														Total		
0-14		15-24		25-34		35-44		45-54		55-64		> 65				
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
0	0	1	1	3	2	3	6	1	2	1	0	0	0	9	11	20

Comments: The patients that were transferred-in or failures should not be included in this report.

3. Conduct a Group Discussion About the Administering Treatment Module

When everyone has finished reading the module, conduct a group discussion about the module Quarterly Reporting on Case Finding. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- How does the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* relate to a country's overall recording and reporting system for tuberculosis?
- Why is it important to complete the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*?
- How is the year divided up for reporting purposes?
- When should the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* be done?
- What are the steps to complete the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*?
- What are the types of cases included in *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*?
- What are the types of cases not included in *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*? Why?
- Why New smear-positive cases should be reported by age and sex.
- Where should the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)* be sent when it is completed?

In addition, you may want to discuss common reasons why the number of cases may be inconsistent with what is expected, and what action to take.

On a flipchart, write the headings from the table below (taken from the module). Ask participants about common problems (for example, total number of cases reported is low), causes of the problems and possible actions to take. Write their comments on the flipchart.

If the Total Number of:	The Cause Might Be:	Then Possible Actions Are:
Cases is low		
Smear-negative cases is too high		
Relapse cases is too high		
Extra-pulmonary cases is too high		
Extra-pulmonary cases is too low		

1. Conclude the Module and Continue to the Next Module, Quarterly Reporting on Treatment Outcomes.

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Quarterly Reporting on Treatment Outcomes*.

Guidelines for Module 7: Quarterly Reporting on Treatment Outcomes

Procedures	Feedback
1. Distribute the module <i>Quarterly Reporting on Case Finding</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1.	Individual
3. Conduct a group discussion about the <i>Quarterly Reporting on Case Finding</i> module.	Group Discussion
4. Conclude the module and continue to the next module, <i>Quarterly Reporting Treatment Outcomes</i> .	-----

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how to conduct quarterly reports for sputum smear conversion and treatment outcomes.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the topics outlined below are a suggestion of some important key points that can be reviewed.

Remind participants that the facilitators are there to help them. If they have any difficulty, they should come to a facilitator for help.

Explain: What Quarterly Reports Will Be Discussed in this Module.

As discussed in *Module 6, Quarterly Reports on Case Finding*, on a quarterly basis, the number of New cases and Relapse that are Pulmonary smear-positive and smear negative, as well as extrapulmonary in each district is determined and reported on the *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*.

In addition, there are two other important quarterly reports that are part of a tuberculosis programs recording and reporting system:

- The *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)*
- The *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*

Quarterly reports on sputum conversions and treatment outcomes, provide data to evaluate TB control activities within the raion.

Explain: What the Purpose is of the Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10).

The sputum smear conversion rate (from positive to negative) is one of the best indicators that the intensive phase of therapy is taken regularly and is effective. After 2 months of therapy, more than 80% of new pulmonary smear-positive cases should be smear-negative, and after 3 months the rate should increase to more than 90%.

Explain: When to complete the Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10).

Sputum conversion rates for patients after the initial intensive phase of treatment should be conducted on a quarterly basis. The quarterly sputum conversion analysis must take place 6 months after the quarter has ended. For example, if patients are enrolled for treatment in quarter 1 (January through March), the *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)* should be completed after the initial phase of treatment is completed in quarter 3 (6 months later).

Explain: What the Purpose is of the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08).

The *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)* provides data to determine how effective TB programs are in achieving a desired cure rate. The primary goal of a national tuberculosis program is to detect and cure patients with tuberculosis, especially patients with smear-positive tuberculosis. An achievable cure rate goal for new smear-positive tuberculosis cases in a newly established tuberculosis program is 75%. A cure rate of at least 85% for new smear-positive cases is a reasonable goal for well-established tuberculosis programs.

Determining the cure rate for new pulmonary smear-positive cases registered in the *TB Patient Register (TB 03)* is a useful way to evaluate the effectiveness of treatment strategies for treating tuberculosis cases in the raion. It is important to evaluate possible treatment outcomes such as cured, (confirmed by smear), treatment completed, died, failure, default, and transferred out to another raion. All treated cases should be evaluated. Each category of patients (new, relapse, smear positive, and other) should be evaluated separately.

Explain: When to Complete the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08).

The *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)* should be completed one year from the quarter that just ended. For example, in January, the 1st quarter of the year, the *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)* should be completed for cases registered during the fourth quarter an **entire year earlier**.

Explain: How the Findings Are Used from the Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10) and Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08).

The Oblast TB Coordinator should analyse the sputum conversion rates and the treatment outcomes for a raion on a quarterly basis, and share the findings with the Raion Tuberculosis Coordinator during supervisory visits. Together, they can investigate problems and take action to solve them.

This information should also be shared with the Central/Federal Unit to compare sputum conversion rates and treatment outcomes by raion, region and nationwide. Information from the analyses should be used to identify areas that require attention in order to improve their sputum conversion rates and cure rates.

The Raion TB Coordinator can use the findings of reports on treatment results to improve TB control activities within the raion. For example, sharing the results of quarterly reports on treatment outcomes with health workers can help them see how successful they are in achieving sputum conversion rates and cure rates of 85%.

Add any additional points you wish to make when you introduce the module.

2. Ask the participants to do Exercise 1.

Answers to Exercise 1

In this exercise participants take on the role of the Raion Tuberculosis Coordinator for Uljanovsky Raion. They use the information from *TB Patient Register (TB 03)* in the Module 7 section of the *course Workbook* to complete the *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)*.

If participants have questions while filling out the report, they should come to a facilitator for help. When they complete their work, they will bring it to a facilitator for review.

Review participant's completed *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)*. If a participant entered information incorrectly, review the process used to obtain the incorrect number. Help participants identify errors, and refer participants to the appropriate pages in the module, if necessary. Make sure that participants correct any mistakes and understand how to complete the report.

Some participants may have difficulty reviewing the *TB Patient Register (TB 03)*. If they have difficulty keeping on the right row on the TB Patient Register, suggest they use a piece of paper to block out the rows they are not looking at. They can move the paper down the page of register, as they complete their review of a row.

Some participants may have difficulty with the calculations. Ask them to explain the process they used to obtain the numbers on the Quarterly Report on Treatment Results. Step by step, review the process of adding the numbers from each *TB Patient Register (TB 03)* page together.

After the participants complete the *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)* they should answer the following questions.

- 1. What is the sputum smear conversion rate for new pulmonary smear-positive cases at 3 months?**

90 %

- 2. What is the sputum smear conversion rate for relapses smear-positive cases at 4 months?**

100%

- 3. What does a smear conversion of at least 85% usually indicate?**

The sputum smear conversion rate (from positive to negative) is one of the best indicators that the intensive phase of therapy is taken regularly and is effective. After 2 months of therapy, more than 80% of new pulmonary smear-positive cases should be smear-negative, and after 3 months the rate should increase to more than 90%.

- 4. What does a smear conversion less than 85% usually indicate?**

The goal is to have a sputum smear conversion rate of at least 85%; anything below 85% should lead to an investigation as to the cause of the low smear conversion rate. Treatment monitoring, through direct observation of treatment may need to be reinforced.

When participants complete the exercise, they should continue reading the module.

Module 7: Answer Sheet – Exercise 1

Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)

1. Administrative territory: *Kaluzhskaya Oblast*

2. Raion/Raion code: *Ulianovsky/08*

3. Patients registered in 1
Quarter of the Year 20 02

4. Date when report is
filled: 07/04/02

5. Name/Signature of the Raion TB Coordinator: *Ribakova O.N.*

6. Table 1

Patient types	Number of s+ patients registered	Sputum conversion								No smear available	Smear remained positive
		After 2 mths.		After 3 mths.		After 4 mths.		Total			
		N	%	N	%	N	%	N	%		
New cases	20	12	60	18	90			18	90	-	2
Relapses	4			2	50	4	100	4	100	-	-
All other re-treatment cases	2			1	50	-	-	1	50	1	-

Comments: One of the other re-treatment patients died during treatment.

3. Ask the Participants to do Exercise 2.

Answers to Exercise 2

In this exercise, participants practice answering questions and completing all the sections of *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*.

Participants assume the role of the District Tuberculosis Coordinator for Ulyanovsky raion. They use their answers to Exercise 1 in Module 6, *Quarterly Reporting on Case Finding* and the information from *TB Patient Register (TB 03)* in the Module 7 section of the course *Workbook* to complete the *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*.

If participants have questions while filling out the report, they should come to a facilitator for help. When they complete their work, they will bring it to a facilitator for review.

Review participant's completed *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*. If a participant entered information incorrectly, review the process used to obtain the incorrect number. Help participants identify errors, and refer participants to the appropriate pages in the module, if necessary. Make sure that participants correct any mistakes and understand how to complete the report.

Some participants may have difficulty reviewing the *TB Patient Register (TB 03)*. If they have difficulty keeping on the right row on the TB Patient Register, suggest they use a piece of paper to block out the rows they are not looking at. They can move the paper down the page of register, as they complete their review of a row.

Some participants may have difficulty with the calculations. Ask them to explain the process they used to obtain the numbers they have calculated. Step by step, review the process of adding the numbers from each page of *TB Patient Register (TB 03)* in the Module 7 section of the course *Workbook*.

After the participants complete the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08), they should answer the following questions.

1. What is the number of patients that were “transferred in?”

Two (2).

2. What were the treatment outcomes for each of the “transferred in” patients?

Cured, smear negative confirmed

3. Where should the treatment outcomes of “transferred in” patients be recorded?

Treatment outcomes for “transferred in” patients can be recorded in the TB Patient Register (TB 03) in the location where the patient transferred into, but the treatment outcomes should not be included in the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08). The treatment outcomes for patients who were “transferred in” should be reported back to the area where the patient was originally registered.

4. What is the number of patients that were “transferred out?”

Two.

5. Were there any known treatment outcomes for patients who were “transferred out?” If yes, please specify the treatment outcome(s)?

Yes, the patient with serial number 26 was “transferred out,” but the treatment outcome was reported. The treatment outcome reported was “Cured, smear confirmed.”

6. How does the knowledge of a treatment outcome for a patient who was “transferred out” influence the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)?

If the treatment outcome is reported for a patient who was “transferred out,” the patient can be included in the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08).

7. What patients should be excluded from the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)? Why?

***Transferred-in patients:** Treatment outcomes for “transferred in” patients can be recorded in the TB Patient Register (TB 03) in the location where the patient transferred into, but the treatment outcomes should not be included in the Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08). The treatment outcomes for patients who were “transferred in” should be reported back to the area where the patient was originally registered.*

***Extrapulmonary:** The Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08) is used to record the treatment results of pulmonary patients. As such, extrapulmonary cases are not included in this form.*

Smear-negative relapses are also not included on this form.

Module 7: Answer Sheet – Exercise 2

Worksheet to document pulmonary smear-positive cases

Page of Register	Cured (confirmed by smear)	Treatment Completed	Died	Failure (confirmed by smear)	Default	Transferred out	Total
A	////			/			5
B	/////						6
C	////				/		6
D	//					/	3
Total	17			1	1	1	20

Worksheet to document pulmonary smear-negative cases

Page of Register	Cured (confirmed by smear)	Treatment Completed	Died	Failure (confirmed by smear)	Default	Transferred out	Total
A		/					1
B		/					1
C		/					1
D		///	/				4
Total		6	1				7

Worksheet to document pulmonary smear-positive relapses

Page of Register	Cured (confirmed by smear)	Treatment Completed	Died	Failure (confirmed by smear)	Default	Transferred Out ¹	Total
A	//						2
B							
C	/						1
D	/						1
Total	4						4

Worksheet to account for all the cases registered in the Ulyanovsky Raion

Page of Register	Total No. of New cases Smear-positive	Total No. of New cases Smear-negative	Total No. of Relapses Smear-positive	Total No. of Extra-pulmonary, Relapses Smear-negative, Transfer-in, Treatment after default, all Smear -, treatment after failure	Total No. of Cases on Each Page of Register
A	5	1	2	2	10
B	6	1	-	3	10
C	6	1	1	2	10
D	3	4	1	2	10
Total	20	7	4	9	40

¹ If a patient transferred out to another, but his/her laboratory results at the end of treatment are known, the patient's treatment outcome should be registered according to his/her lab results. For example, Karamzina Svetlana Vasilievna (№ 27) was transferred out, however her treatment outcome should be Cured (confirmed by smear), as her negative smear result is documented in her TB Patient Register (TB 03). In addition, Sokolov Kirill Fedorovich (№ 36) is also transferred out, however his treatment outcome should be also Cured (confirmed by smear).

Module 7: Answer Sheet –
Exercise 2 (continued)

Quarterly Report on the Results of Treatment of Pulmonary
Tuberculosis Patients
Registered 12-15 Months Earlier (TB 08)

1. Administrative territory: Kaluzhskaya Oblast

2. Raion/Raion code: Ulianovsky /08

3. Patients registered in 1
Quarter of the Year 2001

4. Date when report is
filled: 04 /18 /2002

5. Raion TB Coordinator Name/Signature: Rybka

6. Table 1

Total No. of Pulmonary Patients reported during above quarter			Patient type	(1) Cured (conf. by smear)	(2) Treatment completed	(3) Died	(4) Failure (conf. by smear)	(5) Default	(6) Transferred out	(7) Total number evaluated (sum of columns 1 to 6)
New pulmonary TB cases			1. New cases	17	-	-	1	1	1	20
M	F	Total*								
9	11	20	1.1 Smear +							
3	4		1.2 Smear –		6	1	-	-	-	7
Relapses			2. Re-treatment cases	4	-	-	-	-	-	4
M	F	Total**								
4	-	4	2.1 Relapses S+		1	1	-	-	-	2
			2.2 Other types S+***							

*Of all the new pulmonary TB cases _____ (number) were excluded from evaluation for the following reasons:

** Of all the relapse TB cases _____ (number) were excluded from evaluation for the following reasons

*** “Other types” of smear positive retreatment cases, including “treatment after failure,” “treatment after default” and “other”

4. Conduct a Group Discussion about the Administering Treatment Module

When everyone has finished reading the module, conduct a group discussion about the module *Quarterly Reporting on Treatment Outcomes*. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- What is the purpose is of the *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)*.
- When should you complete the *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)*?
- What are the steps for completing the *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)*?
- What are satisfactory sputum smear conversion rates at 2 months? At 3 months?
- What is the purpose is of the *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*.
- When should you complete the *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*?
- What are the steps for completing *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*?
- What patients are excluded from analysis in the *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*? Why?
- How are the findings used from the *Quarterly Report on Sputum Conversion After Completion of Intensive Phase Treatment (TB 10)* and *Quarterly Report on the Results of Treatment of Pulmonary Tuberculosis Patients Registered 12-15 Months Earlier (TB 08)*?
- What are satisfactory cure rates?

**5. Conclude the module and continue to the next module,
Maintaining Regular Drug Supplies and Other Materials**

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Maintaining Regular Drug Supplies and Other Materials*.

Guidelines for Module 8: Maintaining Regular Drug Supplies and Other Materials

Procedures	Feedback
1. Distribute the module <i>Maintaining Regular Drug Supplies and Other Materials</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1. Ask the participants to continue reading after they have completed Exercise 1	Individual Feedback
3. Ask the participants to do Exercise 2. Ask the participants to continue reading after they have completed Exercise 2.	Individual Feedback
4. Ask the participants to do Exercise 3. Ask the participants to continue reading after they have completed Exercise 3.	Individual Feedback
5. Ask the participants to do Exercise 4. Ask the participants to continue reading after they have completed Exercise 4.	Individual Feedback
6. Ask the participants to do Exercise 5.	Individual Feedback
7. Conduct a group discussion about the <i>Maintaining Regular Drug Supplies and Other Materials</i> module.	Group Discussion
8. Conclude the module and continue to the next module, <i>Supporting Laboratory Services</i> .	-----

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how to *Maintaining Regular drug supplies and other materials*.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the topics outlined below are a suggestion of some important key points that can reviewed.

Remind participants that the facilitators are there to help them. If they have any difficulty, they should come to a facilitator for help.

Explain: Importance of Maintaining Regular Drug Supplies and Other Materials.

Treatment and prevention of tuberculosis depends on the availability of drugs, other treatment-related supplies, and laboratory materials. One of the most important tasks of the Raion TB Coordinator is to make sure that all health facilities where tuberculosis treatment is provided (dispensary, hospital, out-patient clinics, and microscopy laboratories) in the Raion have the drug supplies and other materials they need. These drug supplies and other materials include the following:

- Drugs for tuberculosis treatment
- Treatment related supplies, such as syringes and needles
- Sputum containers and slides
- Reagents and other miscellaneous materials used in the laboratory¹
- Forms and registers

¹ Please refer to *Module 9, Supporting Laboratory Services* module to learn how to maintain an adequate supply of reagents and other miscellaneous materials used in the laboratory to perform sputum smear microscopy.

Explain: What the Ordering of Drugs is Based On.

If a health unit does not have enough tuberculosis drugs to treat their patients, adequacy and regularity of treatment is impossible. Make sure that a health unit never runs out of drugs. Order drugs four times a year. The calculations for ordering the drugs are based on the number of tuberculosis patients diagnosed and registered in the previous quarter, the approximate amount of tablets or dosages of drugs needed per treatment regimen, and the amount of drugs in stock.

Explain: What the Ordering of Needles and Syringes is Based On.

It is also important to make sure health units that administer streptomycin to their patients have an adequate supply of needles and syringes. Order supplies for streptomycin injections four times a year. The amount to order is based on the number of tuberculosis patients who were diagnosed and prescribed to Category 2 treatment regimen during the last quarter, the amount of needles and syringes needed per patient, and the amount of these supplies in stock.

Explain: What the Ordering of Sputum Containers and Slides is Based On.

Every health unit in your district that collects sputum to a microscopy laboratory must have an adequate supply of sputum containers. Microscopy laboratories, which usually collect sputum specimens, must also have an adequate supply of sputum containers as well as slides to examine the specimens. Order sputum containers and slides four times a year. The calculations for ordering the supplies are based on the number of New pulmonary smear-positive cases registered and treated last quarter, the approximate number of sputum containers and slides needed for diagnosis and follow up examinations, and the amount of these supplies in stock.

Explain: When to Order Forms and Registers.

There are several tuberculosis forms and registers used in the district. Once a year, determine how many forms and registers your district will need for the year.

Add any additional points you wish to make when you introduce the module.

2. Ask the Participants to do Exercise 1.

Answers to Exercise 1

Participants practice calculating the drugs needed for a district for a quarter.

Participants are given the following reports, tables and worksheet:

- *Quarterly Report on New Cases and Relapses of Tuberculosis (TB 07)*
- Worksheet for determining the number of cases registered last quarter for each treatment regimen
- Table on the number of tablets or vials of drugs needed for a patient per treatment regimen
- Worksheet for determining the total number of tablets or vials of each drug needed to treat patients in all treatment regimens
- Worksheet to record the amount of tablets or vials of each drug in stock
- Table to record the amount of tablets or vials of each drug needed for a quarter.

When participants complete their work they will bring it to a facilitator for review.

Since there are five steps to the process of calculating drugs and several tables and worksheets, participants may have some difficulty working through the exercise. Make sure you are available to answer any questions.

Review the participant's work based on the worksheets and tables on the following pages. If a participant calculates the number of drugs needed incorrectly, refer him to the appropriate pages in the module so he can review the procedures. Make sure the participant understands how to make this calculation and corrects any mistakes he might have made.

Once the participant has successfully completed Exercise 1, ask the participants to continue reading the module.

Module 8: Exercise 1 Answer Sheets**Worksheet for Determining the Approximate Number of Patients Registered Last Quarter for Each Treatment Regimen****Category 1****(a) 30**

total number of
New pulmonary
smear-positive
patients registered
(Block 1, column 1)

Category 2**(b) 4**

total number of
Relapse patients
registered
(Block 1, column 2)

+

3

total number of
Retreatment cases
registered other
than Relapses
(10% of (a) above)

=

7

**total number of
Category 2
patients
registered**

Category 3**10**

total number of new
smear-negative
patients registered
(Block 1, column 3)

+

6

total number of
extra-pulmonary
patients registered
(Block 1, column 4)

=

16

**total number of
Category 3
patients
registered**

Module 8: Exercise 1 Answer Sheets (continued)**Worksheet for Determining the Total Amount of Tablets or Vials of Each Drug Needed to Treat Patients in All Treatment Regimens**

Drug	Category 1 Patients × Amount of Tablets	Category 2 Patients × Amount of Tablets or Vials	Category 3 Patients × Amount of Tablets	Total Amount of Tablets or Vials Needed to Treat Patients
H 100 mg	$\frac{30 \text{ patients} \times}{520 \text{ tablets}} =$ <u>15,600</u> tablets	$\frac{7 \text{ patients} \times}{700 \text{ tablets}} =$ <u>4,900</u> tablets	$\frac{16 \text{ patients} \times}{520 \text{ tablets}} =$ <u>8,320</u> tablets	<u>28,820</u> tablets
R 150 mg	$\frac{30 \text{ patients} \times}{490 \text{ tablets}} =$ <u>14,700</u> tablets	$\frac{7 \text{ patients} \times}{620 \text{ tablets}} =$ <u>4,340</u> tablets	$\frac{16 \text{ patients} \times}{490 \text{ tablets}} =$ <u>7,840</u> tablets	<u>26,880</u> tablets
Z 500 mg	$\frac{30 \text{ patients} \times}{200 \text{ tablets}} =$ <u>6,000</u> tablets	$\frac{7 \text{ patients} \times}{270 \text{ tablets}} =$ <u>1,890</u> tablets	$\frac{16 \text{ patients} \times}{200 \text{ tablets}} =$ <u>3,200</u> tablets	<u>11,090</u> tablets
E 400 mg	$\frac{30 \text{ patients} \times}{200 \text{ tablets}} =$ <u>6,000</u> tablets	$\frac{7 \text{ patients} \times}{530 \text{ tablets}} =$ <u>3,710</u> tablets	$\frac{16 \text{ patients} \times}{200 \text{ tablets}} =$ <u>3,200</u> tablets	<u>12,910</u> tablets
S injection		$\frac{7 \text{ patients} \times}{60 \text{ vials}} =$ <u>420</u> vials		<u>420</u> vials

Module 8: Exercise 1 Answer Sheets (continued)

Amount of Tablets or Vials of Each Drug Needed for Lebedyansky Raion For the Quarter Beginning April 2002

Drug	Total Amount of Tablets or Vials Needed to Treat Patients (a)	Multiply the Amount of Tablets or Vials Needed by 2 for Reserve Stock (a) × 2 = (b)	Stock as of Last Day of Previous Quarter (c)	Subtract (b) from (c) to Obtain the Total Amount of Tablets or Vials to Order (b) – (c) = (d)
H	28,820	57,640	18,500	39,140
R	26,880	53,740	16,200	37,540
Z	11,090	22,180	10,250	11,930
E	12,910	25,820	6,750	19,070
S	420	840	140	700

3. Ask the participants to do Exercise 2.

Answers to Exercise 2

In this exercise participants answer questions about distributing and maintaining an adequate supply of drugs to the health units.

Participants answer 5 questions about how to determine the amount of drugs to distribute to a health unit, how to make sure health units have an adequate supply of drugs, what to do if a health unit: a) does not have enough drugs or b) has too large a supply of drugs, how to prevent health units from dispensing drugs that have expired, and how to account for drugs in stock. When participants complete their work, they will bring it to a facilitator for review.

Review the participant's work. If a participant answers any question incorrectly, refer him to the appropriate pages in the module so he can review the procedures. Make sure the participant understands how to distribute and maintain an adequate supply of drugs to the health units and corrects any mistakes he or she might have made.

Once the participant has successfully completed Exercise 2, ask the participants to begin reading the next section of the module.

1. What steps do you take to determine the amount of tablets and dosages of drugs to distribute to a health unit?

- *Determine the number of tuberculosis patients the health unit treated last quarter for each treatment regimen.*
- *Determine the approximate amount of tablets or grams of each drug needed to treat one patient per treatment regimen.*
- *For each health unit, determine the total amount of tablets or grams of each drug needed to treat patients in all treatment regimens.*
- *Allow for reserve stock of the health unit.*
- *Account for drugs currently in stock at the health unit.*

2. How do you ensure that every health unit in your district has an adequate supply of drugs?

During supervisory visits to a health facility, the Raion TB Coordinator should make sure there are enough drugs to meet the needs of the facility. The Raion TB Coordinator should evaluate current supplies and stock supplies to ensure there are enough drugs to last until the end of the quarter, and that there is an adequate reserve stock of drugs.

3. What should you do if a health facility:

a) does not have enough drugs

If a health facility has too low a supply of drugs, possible reasons for the increased drug needs should be explored. Typically, an increased demand for drugs can be attributed to the treatment of substantially more cases than usual. When this happens, the Raion TB Coordinator should check the health facility records to verify the need for additional drugs. Raion TB Coordinators should always be aware of the possible misuse of drugs as well.

b) has too large a supply of drugs?

If a health facility has too large a supply of drugs, the Raion TB Coordinator should take the excess supply back, and add it to the overall Raion storage. Alternately, the extra drugs can be stored at the health facility, and deducted from drug distributions in the future.

4. How do you prevent health facility from dispensing drugs that have expired?

The TB Coordinator should make sure that health facilities within the Raion use the old stock of drugs before the new stock. During supervisory visits, the Raion TB Coordinator should

- *Show the health workers how to find the expiration date printed on the bottles of drugs.*
- *Remind health care workers that when they store new supplies of drugs, they should place the new drugs behind the old drugs on the shelf.*
- *Check the expiration dates on the drug bottles to verify that the older drugs are being used first and that none of the drugs have expired.*

5. Look at the table below and describe what you and the Regional Tuberculosis Coordinator should be concerned about.

Drug	Stock on 1st day of previous quarter (a)	Amount of tablets received from the Oblast TB Coordinator last quarter (b)	Amount of tablets distributed to treatment units last quarter (c)	Stock on last day of previous quarter [should equal approximately (a + b) – c]
H	8,000 tablets	16,000 tablets	14,000 tablets	10,000 tablets
R	6,500 tablets	15,000 tablets	12,500 tablets	7,200 tablets
Z	2,000 tablets	8,000 tablets	3,500 tablets	6,500 tablets
E	7,000 tablets	18,000 tablets	14,000 tablets	11,000 tablets

There were 6,500 R tablets in stock on the first day of last quarter + 15,000 tablets received = 21,500 tablets. 21,500 tablets – 12,500 distributed = 9,000 tablets in stock. There should be approximately 9,000 tablets of R remaining in stock, but there are only 7,200 tablets. 9,000 tablets – 7,200 tablets = 1,800 tablets missing.

1,800 ÷ 9,000 = .2.

.2 x 100 = 20%.

There were 20% of the tablets missing.

4. Ask the participants to do Exercise 3.

Answers to Exercise 3

In this exercise participants calculate the amount of needles and syringes needed by a district for streptomycin injections.

Participants use case information to calculate the amount of needles and syringes needed by a district for streptomycin injections. They are given worksheets to record their answers. When participants complete their work, they will bring it to a facilitator for review.

If participants have difficulty with the calculation, refer them to the example in the module which describes each step of the calculation.

Review the participant's work. If a participant recorded the wrong amounts to order, refer the participant to the appropriate pages in the module for a review the procedures for calculating the amount of needles and syringes needed by a district for streptomycin injections.

Once the participant has successfully completed Exercise 3, ask the participant to begin reading the next section of the module.

Module 8: Exercise 3 Answer Sheets**Needles**

Step	Description of Step	Resulting Number
1	Determine the number of patients registered and prescribed Category 2 treatment regimens last quarter. <i>Last quarter, 20 patients were prescribed Category 2 treatment regimen.</i>	20
2	Multiply the number obtained in Step 1 by the number of needles needed per patient. $20 \times 2 = 40$	40
3	Allow for reserve stock. $40 \times 2 = 80$	80
4	Account for the needles in stock. <i>There are 30 needles in stock. $80 - 30 = 50$</i>	50 (This is the amount of needles to order.)

Answer the following question:

1. How many needles should be ordered for Mirsky raion?

The District Tuberculosis Coordinator needs to order 50 needles for Mirsky raion.

Module 8: Exercise 3 Answer Sheets (continued)

Syringes

Step	Description of Step	Resulting Number
1	Determine the number of patients registered and prescribed Category 2 treatment regimens last quarter. <i>Last quarter, 20 patients were prescribed Category 2 treatment regimens.</i>	20
2	Multiply the number obtained in Step 1 by the number of syringes needed per patient. $20 \times 1 = 20$	20
3	Allow for reserve stock. $20 \times 2 = 40$	40
4	Account for the syringes in stock. <i>There are 12 syringes in stock. $40 - 12 = 28$</i>	28 (This is the amount of syringes to order.)

Answer the following question:

1. How many syringes should be ordered for Mirsky raion?

The Raion Tuberculosis Coordinator needs to order 28 syringes for Mirsky raion.

5. Ask the participants to do Exercise 4.

Answers to Exercise 4

In this exercise participants answer questions about maintaining an adequate supply of needles and syringes in a district.

Participants answer 2 questions about how to make sure that every health unit which administers the intensive phase of treatment has an adequate supply of materials for streptomycin injections, and what to do if a health unit: a) does not have enough needles and syringes or b) has too large a supply of needles and syringes. When participants complete their work, they will bring it to a facilitator for review.

Review the participant's work. If a participant answered any question incorrectly, refer him to the appropriate pages in the module so he reviews the information on how to maintain an adequate supply of needles and syringes and corrects any mistakes he might have made.

Once the participant has successfully completed Exercise 4, ask the participant to begin reading the next section of the module.

Answer the questions below:

1. How do you ensure that every health unit which administers the intensive phase of treatment has an adequate supply of materials for streptomycin injections?

When Raion TB Coordinators conduct supervisory visits to a health facility that administers streptomycin, they should confirm that there are enough needles and syringes to meet the needs of the treatment facility. On supervisory visits, the Raion TB Coordinator should

- *Ask the health workers if they think the supply is adequate.*
- *Look to see if the supply is sufficient to last until the end of the quarter, including an adequate reserve stock.*

2. What Should You Do if a Health Unit:

a) *does not have an adequate supply of needles and syringes?*

If a health facility is treating more cases in a particular quarter than usual, it is the Raion TB Coordinator's role to make sure the facility receives the additional supplies.

b) *has too large a supply of needles and syringes?*

If you find that a health unit has too many needles or syringes, either take the excess supply back to your storage area, or keep the material at the unit. If you leave the needles and syringes at the health unit, deduct the excess amount from the amount you would distribute to that health unit the following quarter.

6. Ask the participants to do Exercise 5.

Answers to Exercise 5

The purpose of this exercise is to give participants an opportunity to practice calculating the amount of sputum containers and slides needed by a district for a quarter.

Participants read case information and then use case information and a worksheet to calculate the amount of sputum containers needed for diagnosis and follow up examinations. Then they answer questions about how many sputum containers and slides are needed for the quarter.

If participants have difficulty with the calculation, refer them to example in the module which describes each step of the calculation.

Review the participant's work. If a participant recorded the wrong amounts to order, refer him to the appropriate pages in the module that reviews how to calculate the number of amount of sputum containers and slides needed by a district for a quarter.

Once the participant has successfully completed Exercise 5, ask the participant to begin reading the next section of the module.

Module 8: Exercise 5 Answer Sheets

Step	Description of Step	Resulting Number
1	Determine the number of New pulmonary smear-positive patients registered and treated last quarter. <i>80</i>	80
2a	Multiply the number of New pulmonary smear-positive cases by 10. This is the approximate number of symptomatic cases you will have next quarter. <i>$80 \times 10 = 800$</i>	800
2b	Multiply the number of symptomatic cases you might have next quarter (Step 2a) by 3 (the number of specimens taken for each symptomatic). This is the approximate number of sputum containers you will need for diagnosis next quarter. <i>The number from Step 2a is 800. Multiply 800 by 3. $800 \times 3 = 2,400$</i>	2,400
3	Determine the total number of pulmonary smear-positive new and relapse cases and pulmonary smear-negative new and relapse cases treated last quarter. Multiply this by 6 (3 sputum exams x 2 specimens). This is the approximate number of sputum containers you will need for follow up examinations next quarter. <i>$80 + 22 + 5 + 2 = 109$ $109 \times 6 = 654$</i>	654
4	Add the amount of sputum containers needed for diagnosis to the amount of sputum containers needed for follow-up examinations. <i>$2,400 + 654 = 3,054$</i>	3,054
5	Account for the sputum containers in stock. <i>$3,054 - 120 = 2,934$</i>	2,934

Answer the questions below:

1. How many sputum containers should you order for Barvikhinsky raion?

2,934

2. How many slides should you order for Barvikhinsky raion?

2,934

7. Conduct a Group Discussion about the Maintaining Regular Drug Supplies and Other Materials Module

When everyone has finished reading the module, conduct a group discussion about the module *Maintaining Regular Drug Supplies and Other Materials*. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- What can you do to help the treatment units in your district maintain adequate supplies of drugs?
- In addition to maintaining an adequate drug supply, what other supplies and materials should be maintained?
- What are the steps for determining the amount of needles and syringes to order for your district for the quarter?
- What should you do if a health unit does not have enough drugs?
- What should you do if a health unit has too large a supply of drugs?
- How do you prevent health units from dispensing drugs that have expired?
- What are the steps for calculating the amount of drugs needed for your district for a quarter?
- What are the steps for determining the amount of sputum containers and slides needed for diagnosis and follow up examinations for your district for a quarter?
- What are the types and amounts of forms and registers to order once a year?

8. Conclude the Module and Continue to the Next Module, Supporting Laboratory Services.

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Supporting Laboratory Services*.

Guidelines for Module 9: Supporting Laboratory Services

Procedures	Feedback
1. Distribute the module <i>Supporting Laboratory Services</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1. Ask the participants to continue reading after they have completed Exercise 1	Individual Feedback
3. Ask the participants to do Exercise 2. Ask the participants to continue reading after they have completed Exercise 2.	Individual Feedback
4. Ask the participants to do Exercise 3.	Individual Feedback
5. Conduct a group discussion about the <i>Supporting Laboratory Services</i> module.	Group Discussion
6. Conclude the module and continue to the next module, <i>Supporting Laboratory Services</i> .	-----

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how support laboratory services in the raion.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the points outlined below are a suggestion of some important key points that can be reviewed.

Explain: The Intent of Module 9, Supporting Laboratory Services

This training module is NOT designed to be a comprehensive guideline or manual that provides a description of the tasks associated with the day-to-day work of laboratory technicians of microbiology laboratories. Rather, this material is designed to highlight the role of the TB Raion coordinator in supporting and supervising laboratory services within a Raion.

Explain: Who is Responsible for Supporting Laboratory Services?

The Raion TB Coordinator, or the TB Coordinator's designee. The Raion TB Coordinator may appoint a designee or TB Laboratory Supervisor to monitor laboratory services within the Raion. For the purpose of this training material the title of Raion TB Coordinator is used to ensure that laboratory activities are carried out as planned, and that quality assurance measures are in place to monitor laboratory activities. The Raion TB Coordinator should conduct routine supervisory visits to laboratories within the Raion to

- Monitor the *TB Laboratory Register (TB 04)*
- Ensure proper documentation of microscopy examinations
- Ensure maintenance and adequate supply of materials
- Monitor quality assurance activities

Explain: The Laboratory Examinations that Highlighted in Module 9, Supporting Laboratory Services

Within a national TB program, there are different levels of laboratory services. The activities performed at each level of laboratory service vary in terms of technical complexity. Within the Raion, laboratory services can occur in the general medical service sector and in the specialized TB service sector. At the Raion level, laboratory examinations should focus primarily on smear microscopy examination for diagnosis of tuberculosis and monitoring of treatment progress. More complex bacteriological examinations such as culture and drug sensitivity testing take place at laboratories at the regional or Oblast TB Control Institutions.

This training material focuses on the responsibility of the Raion TB Coordinator, to supervise and support laboratory services at the Raion level. As such, this training material focuses on sputum smear examinations and not culture and drug sensitivity testing.

Explain: The Responsibility of the Laboratory Services at the Raion Level

Laboratories within the Raion should:

- Conduct smear microscopy examination on sputum samples for diagnostic and treatment monitoring
- Maintain timely and accurate communication of examination results to treatment facilities
- Maintain accurate *TB Laboratory Register (TB 04)*
- Conduct quality assurance measures
- Train staff on a regular basis

Explain: The Importance the TB Laboratory Register (TB 04)

The *TB Laboratory Register (TB 04)* is used to record the results of laboratory examinations, specifically, sputum smear examinations.

During supervisory visits to laboratories, the Raion TB Coordinator should evaluate the *TB Laboratory Register (TB 04)* and ensure that it is completely and correctly filled out.

For example, the Raion TB Coordinator should ensure that the correct number of sputum specimens were examined for diagnosis and treatment-monitoring purposes. In addition, during supervisory visits the sputum examination results from the *TB Patient Register (TB 03)* should be cross-referenced. If a patient's sputum examination results do not match, the results should be verified by viewing the slide used to determine the sputum examination result, and forms should be updated accordingly

Explain: The Importance of Quality Assurance of Microscopy Examinations

Quality control of microscopy is a process of effective and systematic internal monitoring of the performance of activities in the laboratory. Although the Raion TB Coordinator may not be directly involved in creating quality assurance measures, the Raion TB Coordinator should ensure that each laboratory in the Raion has quality assurance measures in place, and that they are followed on a routine basis.

Quality assurance ensures that the information generated by the laboratory is accurate, reliable and reproducible. This is accomplished by assessing the quality of specimens, by monitoring the performance of microscopy procedures, reviewing microscopy results and by documenting the validity of microscopy methods.

Explain: The Importance of Maintaining Adequate Supply of Laboratory Materials in Good Condition.

The Laboratory Supervisor is responsible for determining the amount of reagents and other materials the laboratory will need each quarter. During supervisory visits, the Raion TB Coordinator should ensure that the laboratory supervisor is maintaining an adequate supply of reagents and other materials. Orders should be placed four times a year based on the approximate number of sputum specimens the laboratory examined the previous quarter.

During supervisory visits, the Raion TB Coordinator should also make sure the reagents are in good condition. Any reagents that are too old or not properly kept should be discarded. Laboratory workers cannot perform proper sputum examinations with reagents that are not in good condition.

Explain: The Importance of Conducting Routine Supervisory Visits.

The Raion Tuberculosis Coordinator should conduct routine supervisory visits to ensure that laboratory activities related to tuberculosis detection and sputum smear monitoring are being correctly performed by the laboratory technicians. The Raion TB Coordinator or the designated lab supervisor should ensure that laboratory activities are carried out as planned. Supervisory visits involve continuous monitoring, identification of problems, followed by action to address identified problems.

Supervisory visits from the Raion TB Coordinator should be planned carefully and the laboratory supervisor should keep a checklist of the items to be evaluated during supervisory visits.

2. Ask the participants to do Exercise 1.

Answers to Exercise 1

In this exercise there are two different cases presented, which highlight different scenarios that may result from monitoring of the *TB Laboratory Register (TB 04)*.

- Review the participant's work. If the participant had any difficulties with the exercise, refer the participant to the appropriate page(s) in the module so he can review the procedure(s). Make sure the participant corrects any mistakes.
- Once the participant has successfully completed Exercise 1, ask participant to continue reading module.

Module 9: Exercise 1 Answer Sheets

Case 1

During your visit to a laboratory in your Raion, you review the *TB Laboratory Register (TB 04)*. You notice that every month the laboratory technicians are beginning with a new Laboratory Serial Number. You also notice that the address column for New patients is never completed, and that there are only two sputum samples examined for each patient who is diagnosed with TB

- 1. Describe in the space below what the technicians in the microscopy laboratory are doing incorrectly. Also include what you should tell the technicians about the importance of maintaining an accurate Tuberculosis Laboratory Register.**

The laboratory technicians are beginning with a new Laboratory Serial Number every month. In the beginning of each year, and the number of each examination is continuous throughout the year (e.g., 1, 2, 3, 4, ...). The numbers should not start over each month. The results of the follow-up examinations recorded in the TB Patient Register (TB03) are the same as the results in the TB Laboratory Register (TB 04).

Case 2

Based on the review the sample *TB Laboratory Register (TB 04)* in Module 9, participants must make sure new patients had their sputum specimens examined the correct number of times.

- 1. List the names of New patients who can be classified as smear-positive cases.**

Korolev Semen
Rusova Valentina
Frolova Olga
Rasov Ivan

3. Ask the participants to do Exercise 2.

Answers to Exercise 2

In this exercise participants answer questions about maintaining an adequate supply of reagents and other materials.

Participants read a list of reagents and other supplies that were found in inventory during a visit to a microscopy laboratory. They have to list what is missing from the laboratory's stock. Participants are then asked a question about how the District Tuberculosis Coordinator and the Laboratory Supervisor should make sure the microscopy laboratory has an adequate supply of reagents and other materials. When participants complete their work, they will bring it to a facilitator for review.

Review the participant's work. If a participant answered any question incorrectly, refer him to the appropriate pages in the module to review the information on how to maintain an adequate supply of reagents and other materials.

Once the participant has successfully completed Exercise 2. Ask participants to read the next section in the module.

Module 9: Exercise 2 Answer Sheets

1. The following is a list of reagents and supplies for the laboratory:

Fuchsin	Marking Pencils
Methylene Blue	Slide Rack
Sulphuric Acid	Bunsen burner
Xylene	Wire Loops and Wire Loop Holders
Phenol Liquid	Slides (preferably disposable)

What, if anything, is missing from the laboratory's stock?

Ethanol
Immersion oil
Boxes for storing slide
Tweezers
Filtering Paper
Funnel

2. How should you and the Laboratory Supervisor make sure the microscopy laboratory has an adequate supply of reagents and other materials?

During supervisory visits, the Raion TB Coordinator should ensure that that the laboratory supervisor is maintaining an adequate supply of reagents and other materials. Orders should be placed four times a year based on the approximate number of sputum specimens the laboratory examined the previous quarter.

4. Ask the Participants to do Exercise 3

Answers to Exercise 3

The purpose of this exercise is to give participants the opportunity to prepare for a supervisory site visit to a laboratory. Working together, in groups of 5, participants will discuss and then develop a checklist they will use during a supervisory site visit to a laboratory.

Participant should use the blank sheet of paper in the module to prepare their checklist. They are given a list of items to include on the checklist. When participants complete their work they should discuss their work with a facilitator.

During the group discussion, review the group's work. If the participants omitted an important question on the checklist, discuss the question that is missing, and why it is important to include it on the checklist.

Once the participants have successfully completed the exercise, ask them to read the module summary.

Each group's checklist should contain questions which address the following issues that laboratory technicians should know how to do:

- Prepare sputum-smear slides for Ziehl-Neelsen microscopy
- Read slides and record results
- Complete the *TB Laboratory Register (TB 04)* and accurately report the results in a timely manner to health facilities
- Cross-check information from the *TB Laboratory Register (TB 04)* with the *TB Patient Register (TB 03)*
- Limit administrative errors in the identification of patients (for example, linking sputum examination results with the proper *Request for Sputum Microscopy Examination Form (TB 05)* and slides
- Keep a box of all smear-positive slides and another of selected 10% smear-negative slides for supervisory evaluation
- Maintain adequate supply of sputum containers, slides, reagents, forms and other laboratory materials
- Check that the binocular microscope is in good working order

In addition, during supervisory visits, the Raion TB Coordinator should:

- Observe general laboratory hygiene and safety practices.
- Check that written standard operating procedures are in place and are easily accessible.
- Check that service and maintenance records and equipment are up to date.

- Check that negative and positive controls are used during microscopy examination.
- Check that a box of all smear- positive slides and 10% of smear-negative slides exist for evaluation.

5. Conduct a group discussion about the Registering Cases module

When everyone has finished reading the module, conduct a group discussion about the *Registering Cases* module. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- What form should be used to request sputum smear examinations, and report examination results?
- What form should be used to request culture and drug sensitivity examinations, and report examination results?
- What is the *TB Laboratory Register (TB 04)*?
- What should you do during visits to the microscopy laboratory to make sure that the *TB Laboratory Register (TB 04)* is complete and accurate?
- How many sputum specimens are examined as part of diagnosis?
- How many sputum specimens are examined as part of treatment monitoring?
- What are some quality assurance measures for microscopy examination with respect to: 1) laboratory equipment, 2) specimens and forms, 3) reagents and stains, staining and smear examination, and reporting and administration?
- What are some infection control measures that should be performed in the laboratory?
- How often should you visit the laboratory to conduct supervisory visits?
- What should be evaluated during supervisory visits to the laboratory?

**6. Conclude the module and continue to the next module,
Conducting Supervisory Visits.**

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Conducting Supervisory Visits*.

Guidelines for Module 10: Conduction Supervisory Visits

Procedures	Feedback
1. Distribute the module <i>Conducting Supervisory Visits</i> . Introduce the module.	-----
2. Conduct a group discussion about the <i>Conducting Supervisory Visits</i> module.	Individual
3. Conclude the module and continue to the next module, <i>Conducting Supervisory Visits</i> .	Group Discussion

1. Introducing the Module

Distribute the module to participants. Explain that this module describes how to register TB patients.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the points outlined below are a suggestion of some important key points that can be reviewed.

Explain: Why it is Important to Regularly Conduct Supervisory Visits to Health Units.

Throughout this course, there have been many references to the Raion TB Coordinator conducting supervising visits. This module will focus on supervisory visits within the Raion to the local health facilities. Supervisory visits to health units give the Raion TB coordinator the opportunity to assess health worker performance and to provide technical advice and guidance to health workers so that they can correctly perform activities related to detecting, referring and treating tuberculosis patients.

Supervision is the systematic process for increasing the efficiency of health workers by developing their knowledge, perfecting their skills, improving their attitudes towards their work, and increasing their motivation.

Regular supervisory visits in which the Raion TB Coordinator places an emphasis on *helping* health workers identify and solve problems will create a good working relationship between the Raion TB Coordinator and the health workers in the district.

Supervisory visits give health workers the opportunity to talk with the Raion TB Coordinator and give the Raion TB Coordinator the opportunity to see and better understand the problems health workers face.

Explain: The Goals of a Supervisory Visit

During supervisory visits the Raion TB Coordinator should:

- Observe and reinforce correct performance
- Identify and inadequate performance before it becomes a major problem

Explain: The Basic Principles of Supervision

- Although there may be differences in the content of supervision, there are several basic principles of supervision.
 - Supervision should be intensified after training
 - Supervisor's personality is important
 - Supervisory visits must be planned carefully
 - Health units or health offices should be notified in advance

Explain: The Frequency with which Supervisory Visits Should Occur

Supervisory visits should be made regularly. Some health units will need more supervision than others. In general hospitals and health facilities with a large number of patients should be visited more frequently than health facilities with few patients. In addition, some health facilities may need more frequent supervision than others if their performance is disappointing.

Explain: Methods for Collecting Information during Supervisory Visits

There are five ways to collect information during a supervisory visit:

1. Talk with health workers.
2. Review the Tuberculosis Treatment Cards.
3. Observe health workers.
4. Talk with tuberculosis patients.
5. Examine supplies.

In addition, checklists should be used to guide Supervisory visits

Explain: Problem-Solving Techniques that can be Used During Supervisory Visits

The Raion TB Coordinator can follow the steps outlined below to address problem discovered as part of supervisory visits.

- Describe the problems which were found
- Identify possible causes
- Identify and implement solutions
- Write a supervisory visit report
- Add any additional points you wish to make when you introduce the module.

2. Conduct a Group Discussion about the Registering Cases Module

When everyone has finished reading the module, conduct a group discussion about the *Conducting Supervisory Visits* module. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- What are the goals of conducting supervisory visits?
- What are some basic principles of supervision?
- What facilities within the raion should be visited for supervisory visits?
- How often should supervisory visits take place?
- What are some common methods that can be used collect information during t supervisory visits (for example, review *TB Patient Treatment Cards (TB 01)* and the *TB Patient Register (TB 03)*, observe health workers, talk with patients, review records, evaluate supplies, etc).
- What is the role of checklist in supervisory visits?
- What are some common methods for problem solving that can be used during a supervisory visit?

For further discussion, ask participants for suggestions of questions. They may want to ask during a visit to a health unit providing treatment for patients in the intensive phase. For example: What are some important items to check when you visit a health unit which provides treatment to patients in the intensive phase? The list of questions below can be used to facilitate discussion.

- Are more than 95% of pulmonary smear-positive patients converting to smear-negative by the end of the intensive phase?
- Are patients on the correct treatment regimens?
- Do health workers closely supervise drug administration to pulmonary smear-positive patients until the patients convert to smear-negative?
- Are the drugs administered correctly by the health workers? For example, are streptomycin injections correctly given?
- Is there an adequate drug supply?
- Are sputum smears monitored at the end of the intensive phase?
- Do the patients understand what tuberculosis is, how it is transmitted, and how it is cured? Do patients know the types and colors of their prescribed drugs?
- Are patients who stop coming for treatment located?
- Do the health workers in the health unit's diagnostic services know what to do when they suspect individuals of having tuberculosis?
- Do all new tuberculosis patients have TB Patient Treatment Cards?
- Are all tuberculosis patients registered in the Tb Patient Register?

Likewise, ask participants about possible questions that they may want to ask when conducting supervisory visits to a health unit which provides the continuation **phase** of treatment. For example: What are some important items to check when you visit a health unit which provides treatment to patients in the continuation phase? The list of questions below can be used to facilitate discussion.

- Are all patients who were originally diagnosed as pulmonary smear-positive monitored by sputum smear examinations at 5 months and end of treatment?
- Do patients regularly receive their drug supply at appropriate times?
- Are patients who stop coming for treatment located?
- Do the health workers in the health unit's diagnostic services know what to do when they suspect individuals of having tuberculosis?

3. Conclude the Module and Continue to the Next Module, *Patient Education*.

Ask the group if they have any questions.

Ask participants to begin reading the next module, *Patient Education*.

Guidelines for Module 11: Patient Education

Procedures	Feedback
1. Distribute the module <i>Patient Education</i> . Introduce the module.	-----
2. Ask the participants to do Exercise 1. Ask the participants to continue reading after they have completed Exercise 1	Group Discussion
3. Ask the participants to do Exercise 2, part A and B.	Group Discussion
4. Ask the participants to do Exercise 3	Individual Feedback and Group Discussion
5. Conduct a group discussion about the <i>Patient Education</i> module.	Group Discussion
6. Conclude the module.	-----

1. *Introducing the Module*

Distribute the module to participants. Explain that this module describes how to conduct patient education.

Provide a brief introduction of the content that will be covered in the module. Begin the introduction by reviewing the Table of Contents with the participants.

Review the list of learning objectives.

Introduce some of the key concepts to be covered in the module. As a facilitator, you should be familiar with the content in each module. It is not possible to provide a thorough review of the module, however the topics outlined below are a suggestion of some important key points that can be reviewed.

Explain: The Importance of Health Education in the Treatment of Tuberculosis

Education of the patient is a critical part of treating tuberculosis. The health worker must communicate with a patient clearly and supportively from the time of diagnosis, throughout the long treatment process, and until the patient is cured. The patient's family will also need information, advice, and support.

At the time of diagnosis, patients need basic information about tuberculosis and how it is spread. They may be afraid and need reassurance that TB can be cured. They need an explanation of the treatment process and the necessity of directly observed treatment. In some cases, health workers may have to persuade patients who feel that daily treatment will be too time-consuming and inconvenient.

Daily or thrice-weekly interactions with patients for directly observed treatment offer many opportunities for health education. At every visit health workers need to show a welcoming and supportive attitude so that patients will be willing to return for the next treatment.

Explain: When Patient Education Should Occur.

Patient education is very important in the intensive phase of treatment, however it is vital to a successful treatment outcome that patient education be an ongoing process throughout the duration of treatment.

Explain: The Effective Communication Skills that can be Used in all Patient Interactions.

- Effective communication is needed to provide health education about TB and its treatment and to encourage patients to continue treatment without interruption. The following communication skills should be used when providing health education about TB:
 - Ask questions and listen
 - Encourage the patient to ask questions
 - Make the interaction with the patient a positive experience
 - Speak clearly and simply
 - Use the appropriate language level
 - Limit the amount of information
 - Discuss the most important topics first and last
 - Repeat important information
 - Use concrete examples
 - Encourage the patient to ask questions
 - Ask checking questions

Explain: Importance of Using Open-ended Questions in Patient Interactions.

An open-ended question is one that cannot be answered with a simple “yes” or “no.” Open-ended questions are designed to learn about the patient’s knowledge, feelings, and beliefs by beginning with words that elicit an explanation, such as “who,” “what,” “when,” “why,” and “how.” In addition, phrases that begin with “Tell me about” or “Explain to me” may be helpful in eliciting information from the patient. Such questions are used when a health care worker needs to explore complex issues that do not have a finite or predetermined set of responses.

Explain: The Importance of Making Interactions with Patients a Positive Experience.

It’s not only *what* is said and done, but *how* it is said and done, that will help the patient understand health education messages, and adhere to treatment. The health care worker should make interactions with patients a positive experience by being encouraging and supportive throughout the treatment process.

By demonstrating a caring and respectful attitude toward the patient, the patient will be more likely to return each day for treatment. A caring attitude can be demonstrated through actions, words, body language, tone of voice, and eye contact.

When health care workers interact with patients they should address the patient by name, and respect the patient's time by attending to the patient as soon as possible.

Explain: The Importance of Asking Checking Questions.

Checking questions are questions intended to find out what a person has learned, in order to provide more information or clarify instructions as needed. Checking questions should be used at the end of an explanation to ensure that the patient understands the health education messages given. Checking questions can also be used at the end of a visit to ensure that the patient understands what to do next.

Explain: What are Some Common Topics that Should be Covered in the Initial Health Education Session with Patients.

- The initial meeting with the patient provides the opportunity to communicate essential information about TB and its treatment. At the first meeting with a TB patient, the following important topics should be discussed:
 - What is Tuberculosis
 - TB can be cured
 - Treatment of TB
 - Necessity of directly observed treatment
 - How tuberculosis spreads
 - Symptoms of TB
 - How to prevent tuberculosis from spreading
 - Importance of completing treatment
 - What to expect; what to do next

Care should be taken not to overwhelm the patient. The patient could possibly be overwhelmed and may be experiencing fear over the diagnosis of TB disease.

The health care worker should be aware of the patient's ability to pay attention and absorb health education messages and should schedule follow-up education sessions with the patients as needed.

Explain: What Some Common Topics Are that should be Emphasized in Patient Education Sessions as Treatment Continues.

- Patient education is a continuous process throughout treatment. After the initial meeting with the TB patient, health care workers should continue to give health education messages at subsequent meetings with the TB patient, and reinforce previous messages and discuss the following topics as relevant:
 - Type and color of prescribed drugs/injections
 - Amount and frequency of drugs/injections
 - Side effects of drugs/injection
 - Treatment during the continuation phase
 - Frequency and importance of sputum exams, and the meaning of their results
 - Treatment during the continuation phase
 - What happens if the patient takes only some of the drugs or stops treatment?
 - What happens if the patient plans to move while on treatment?

Explain: The Importance of Patient Adherence to Treatment.

Adherence to treatment means that a patient is following the recommended course of treatment by taking all the prescribed medications for the entire length of time necessary. Adherence is important because TB is nearly always curable if patients adhere to their TB treatment regimen. However, because of the ramifications of TB if left untreated, the concern is not with adherence, but rather with non-adherence to treatment.

Non-adherence is the patient's inability or refusal to take TB drugs as prescribed. When medical treatment is complicated or lasts for a long time, as in the treatment for TB disease, patients often do not take their medication as instructed. This behavior is one of the biggest problems in TB control and can lead to serious consequences. A non-adherent patient with TB disease may:

- Remain sick longer or have more severe illness,
- Spread TB to others,
- Develop and spread drug-resistant TB, and
- Die as the result of interrupted treatment.

Patients and health care workers are both responsible for ensuring patients' adherence. Patients must decide every day or week whether or not to take their medicine. What they decide often depends on how much help they get from the health care workers they see.

2. Ask the Participants to do Exercise 1.

Exercise 1

Divide participants into groups of three for the role play.

Review the instructions given in the module for Exercise 1 with the participants. In the role play one participant will act as the health worker, one the patient, and one the observer. By repeating the role play, each person will take a turn in each role. Instructions for each role are given in the module.

This role play will only cover the messages outlined in section 11.2 of the module.

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

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

When everyone has had a turn as the health worker, bring the entire group together to conclude the exercise. Briefly discuss any common problems that you observed, any techniques that were used especially well, etc. Answer any questions that participants may have.

Ask participants to continue to read the module.

3. Ask the Participants to do Exercise 2.

Exercise 2

This role play is organized like previous role play. Again divide participants into groups of three.

Review the instructions given in the module with the participants. Each participant will have a turn to act as the health worker, the patient, and the observer.

This role play covers some of the messages outlined in section 11.3 of the module

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

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

When everyone has had a turn as the health worker, bring the entire group together to conclude the exercise. Briefly discuss any common problems that you observed, any techniques that were used especially well, etc. Reinforce use of the content covered in section 11.3 of the guide. Answer any questions that participants may have.

Ask participants to continue to read the module.

4. Ask the Participants to do Exercise 3.

Exercise 3

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

Participants should write brief answers individually first. When everyone is ready, lead a group discussion. For each situation, ask a participant what she or he would say or do. Then ask if anyone else has another idea. Several different ideas may be suggested for each situation.

Remind participants of the need to find out the causes of a problem before identifying a solution. Note that many of the answers on the answer sheet begin, “Find out why....”

After the discussion, ask the participants to read the summary of the module.

Module 11: Answers to Exercise 3

For each situation listed in the left column, the participant should briefly describe what to say or do. When everyone is finished there should be a group discussion to share ideas.

What would you say or do if...?	Briefly write your ideas below:
The patient no longer feels sick, and wants to stop taking medicine.	Explain that TB symptoms can improve dramatically during the initial phase of treatment (the first 8 weeks). However, unless patients continue treatment for at least 6 months, some tubercle bacilli may survive, putting patients at risk for a relapse of TB disease and the development of drug-resistant organisms. Even though the patient feels better it is still important to take the medicine.
A new patient wants to take the drugs unsupervised at home.	Ask questions to determine why the patient wants to take the drugs at home. Explain that most new patients will be hospitalized for the intensive phase of treatment to closely monitor treatment. During the continuation phase, if it is very inconvenient to come to the health center, discuss the possibility of possible treatment supporters. Explain that it is a firm policy to insist on directly observed treatment. It is the only way to get the drugs.
The patient has missed 2 days of treatment during the continuation phase.	Find out why the patient missed the doses. Attempt to solve any problems. Remind the patient of the need to take all of the doses for the prescribed time.
The patient does not want to have a sputum exam after five months' treatment.	Explain the need for the exam. Tell the patient that it is important to be sure that the treatment is progressing successfully.
The patient says her husband, who has cough, does not have time to be tested for TB.	Find out if the patient has told her husband about her illness. Explain that it is important for him to be tested. He could spread TB to others and re-infect her. Offer to visit the husband or arrange for another health care worker to visit the husband and explain the need for testing.
The patient is afraid to tell her family that she has TB.	Offer to talk with the family about TB. Reassure the family that the patient will typically not be infectious after 2-3 weeks of treatment, as long as she continues treatment. Explain how TB is spread and how it can be prevented.

What would you say or do if...?	Briefly write your ideas below:
The patient feels the medicine is making him sick and wants to stop taking the medicine	Determine if the patient's symptoms are caused by the TB drugs and whether they are major or minor side effects. If they are major side effects, stop treatment at once, and refer the patient to the Oblast TB Dispensary. If they are minor side effects, help the patient manage the side effect so he can continue on treatment.
The patient doesn't have transportation to get to the health clinic	Find out why the patient cannot obtain transport to the clinic. Try to work with the patient to identify solutions to the transportation barrier. Consider working with local organizations to provide transport or transportation resources as an incentive to the patient to continue treatment.

5. Conduct a Group Discussion about the Monitoring Treatment Module

After all of the participants have finished reading the module, conduct a group discussion about the *Monitoring Treatment* module. Begin the discussion by reviewing the summary section at the end of the module with the participants.

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

In addition, the following questions can be used to generate group discussion:

- Why is patient education a critical part of treating tuberculosis?
- What are some effective communication techniques that can be used with patients throughout treatment?
- What are open-ended questions and why should they be used?
- What are some examples of open-ended questions?
- Why is it important to make interactions with the patient a positive experience?
- What are checking questions and why should they be used?
- What are some examples of checking questions?
- What are some common topics that should be covered in the initial health education session with patients?
- As treatment continues, what are some topics that should be emphasized in patient education sessions?
- What happens if a patient moves while on treatment?

- What happens if a patient takes only some of the drugs or stops treatment?
- What are some of the minor and major side effects patients may experience while taking treatment?
- What are some common reasons why patients become non-adherent?
- What are some methods to improve patient adherence to treatment?

6. Conclude the Module

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