

# **Management of collaborative TB/HIV activities:**

## **Training for managers at the national and subnational levels**

---

**Guide for facilitators**

---



**World Health  
Organization**

**© World Health Organization 2005**

All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The named authors alone are responsible for the views expressed in this publication.

# **Management of collaborative TB/HIV activities:**

## **Training for managers at the national and subnational levels**

**Guide for facilitators**

Geneva, 2005

## *Acknowledgements*

This manual is part of a set of materials for the management of collaborative TB/HIV activities: training for managers at the national and subnational levels prepared by the Stop TB Department of the World Health Organization. It is designed to assist countries in developing and organizing country-specific TB/HIV courses for national and subnational TB and HIV/AIDS managers. This project was coordinated by Rafael Alberto López of the Stop TB Department of the World Health Organization. The training package was designed by Giovanni Battista Migliori of the WHO Collaborating Centre for Tuberculosis and Lung Diseases, Fondazione S. Maugeri, Care and Research Institute, Tradate, Italy and Karin Bergstrom and Pierre-Yves Norval of the Stop TB Department of the World Health Organization. All contributed to developing the content along with Alberto Matteelli of the University of Brescia, Italy.

The following people also provided technical input:

Akiiki Bitalabeho, Department of HIV/AIDS, WHO  
Caterina Casalini, Ministry of Health, Ethiopia  
Rhehab Chimzizi, Ministry of Health, Malawi  
Nickolas De Luca, United States Centers for Disease Control and Prevention, USA  
Anthony Harries, Ministry of Health, Malawi  
Haileyesus Getahun, Stop TB Department, WHO  
Massimo Ghidinelli, WHO Country Office for Cambodia  
Daniel Kibuga, WHO Regional Office for Africa  
Fabio Luelmo, consultant, the Netherlands  
Paul Nunn, Stop TB Department, WHO  
Rose Pray, Stop TB Department, WHO  
Gilles Pומרol, Department of HIV/AIDS, WHO  
Alasdair Reid, Stop TB Department, WHO  
Felix Salaniponi, Ministry of Health, Malawi  
Igor Toskin, Stop TB Department, WHO  
Jan van den Hombergh, WHO Country Office for Ethiopia  
Marco Vitoria, Department of HIV/AIDS, WHO

The training package was field-tested in five TB/HIV courses organized in Addis Ababa, Ethiopia and Sondalo, Italy in 2004 and 2005.

**Management of collaborative TB/HIV activities:  
Training for managers at the national and subnational levels  
*Guide for facilitators***

**Contents**

	<b>Page</b>
Introduction to this facilitator guide .....	5
Guidelines for all units .....	10
I. Facilitator techniques .....	10
II. When participants are working .....	14
III. When leading a plenary discussion .....	14
IV. When providing individual feedback .....	15
Matrix of the course .....	17
Agenda of the course .....	20
Facilitator guidelines for Unit 1: Introduction to the course .....	21
Facilitator guidelines for Unit 2: How to prepare a plan for implementing collaborative TB/HIV activities .....	25
Facilitator guidelines for Unit 3: Epidemiology .....	29
Facilitator guidelines for Unit 4: Principles for controlling TB and HIV/AIDS .....	39
Facilitator guidelines for Unit 5 part 1: The DOTS strategy for controlling TB .....	49
part 2: Clinical management of TB .....	51
Facilitator guidelines for Unit 6: part 1: Universal access to antiretroviral therapy .....	59
part 2: Clinical management of HIV/AIDS .....	61
Facilitator guidelines for Unit 7: Drug management for controlling TB and HIV/AIDS .....	69
Facilitator guidelines for Unit 8: The interim policy on collaborative TB/HIV activities .....	73
Facilitator guidelines for Unit 9: Recording and reporting for the implementation of collaborative TB/HIV activities .....	77

	<b>Page</b>
Facilitator guidelines for Unit 10: Surveillance of HIV prevalence among people with TB disease.....	81
Facilitator guidelines for Unit 11: Human resource development for implementing collaborative TB/HIV activities .....	85
Facilitator guidelines for Unit 12: Monitoring and evaluating the implementation of collaborative TB/HIV activities .....	89
Facilitator guidelines for Unit 13: Costing and budgeting for implementation of collaborative TB/HIV activities .....	93
Facilitator guidelines for Unit 14: Case study on delivering services for TB and HIV/AIDS – the example of Malawi .....	97
Facilitator guidelines for Unit 15: Field visit to a local health facility providing preventive, diagnostic and treatment services for TB and HIV/AIDS .....	101
Facilitator guidelines for Unit 16: Individual finalization of plans for implementing collaborative TB/HIV activities .....	103
Facilitator guidelines for Unit 17: Discussion of plans for implementing collaborative TB/HIV activities.....	105
Facilitator guidelines for Unit 18: Course evaluation.....	107

# INTRODUCTION TO THIS FACILITATOR GUIDE

## *For whom is this course intended?*

This course is designed for TB and HIV managers operating at a national or subnational level who are responsible for planning, organizing, implementing and evaluating activities within tuberculosis (TB) control programmes and/or HIV/AIDS programmes.

The manager at the national or subnational level is usually a physician. He or she works at the health ministry at a national or subnational level, within the national TB control programme or national HIV/AIDS programme. Usually he or she does not have clinical duties, the job being primarily administrative and managerial. Although the manager must be thoroughly familiar with clinical guidelines for the national TB control programme and/or national HIV/AIDS programme, he or she is primarily responsible for enabling and monitoring the implementation of these guidelines rather than actually managing treatment.

## *What methods of instruction does this course use?*

This course uses a variety of methods of instruction, including presentations, exercises, discussions, exchange of experience among facilitators and participants and a field visit to a local health facility offering TB and HIV/AIDS services. Practice, whether in problem-solving exercises, discussions, exchange of experience among facilitators and participants or in the health facility, is considered a critical element of instruction.

- Presentations are designed to introduce the topics of the units, discussions and/or exercises.
- Exercises are based on data from Fictitia, an imaginary country in which the expansion phase of DOTS is being completed that is facing the effects of a growing HIV/AIDS epidemic. Annex 1 of the manual for participants is a concise background document including the description of the country, its infrastructure, epidemiological and financial data as well as other information needed for the exercises.
- Other interactive activities are conducted to facilitate the full comprehension of new information and the development of skills. Presentations and discussions are based on selected country experiences (such as Malawi) and on the participants' own experiences.
- A field visit is organized to a health facility where services for people with TB/HIV are provided. Senior counsellors and health care staff from the health facility facilitate the visit.

## *How is the course conducted?*

- Facilitators lead and assist small groups of participants as they work through the course units. The facilitators are not lecturers, as in a traditional classroom. Their role, besides introducing the unit, delivering a presentation, and explaining the group work, includes answering questions, providing individual feedback on exercises and leading discussions.
- The units provide the basic information to be learned.

- The units are designed to help each participant develop specific skills necessary for planning and implementing collaborative TB/HIV activities, based on the WHO-recommended TB and HIV/AIDS control strategies and the WHO interim policy on collaborative TB/HIV activities.
- Each participant discusses any problems or questions with facilitators and receives prompt feedback on problem-solving exercises. Feedback includes reviewing and discussing the plan with the participant.

### ***What is a facilitator?***

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

As a facilitator, you need to be very familiar with the material being taught. It is your job to deliver presentations, introduce exercises, give explanations, answer questions, lead group discussions, tutor plan preparation and generally give participants any help they need to successfully complete the course. You are not only expected to deliver presentations, although this is the teaching method to which you are most accustomed.

### ***What, then, does a facilitator do?***

As a facilitator, you do three basic things:

#### 1. You instruct.

- Introduce the unit you had been assigned, deliver clearly the presentation and explain the corresponding exercise.
- Make sure that each participant understands the key messages of your presentation, how to work through the materials and what is expected in the unit and each exercise.
- Answer the participants' questions as they arise.
- Explain any information that the participants find confusing, and help the participants understand the main purpose of each exercise.
- Lead group activities, such as group discussions and the visit to a health facility, to ensure that learning objectives are met.
- Provide additional explanations or practice to improve skills and understanding.
- Help participants to understand how to use the skills taught in the course in their own settings.
- Exchange your experience in implementing collaborative TB/HIV activities with participants.

#### 2. You motivate.

- Compliment participants on correct answers, improvements or progress.

- Make sure that there are no major obstacles to learning (such as too much noise or not enough light).
3. You manage.
- Organize the unit for which you are responsible, ensuring adequate time management.
  - Plan ahead and obtain all supplies needed each day, so that they are in the classroom when needed.
  - Monitor the progress of each participant.

***How do you do these things?***

- Show enthusiasm for the topics covered in the course and for the work 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, and whenever possible, also outside them.
- Watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space or not being active in group work or discussion sessions. 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 participants' concerns, rather than rapidly giving the "correct" answer.
- Always take enough time with each participant to answer questions completely (that is, so that both you and the participant are satisfied).

***What NOT to do...***

- During times scheduled for course activities, do not work on other projects or discuss matters not related to the course.
- In discussions with participants, avoid using facial expressions or making comments that could cause participants to feel embarrassed.
- Do not review text paragraph by paragraph. (This is boring and suggests that participants cannot read for themselves.) As necessary, review the highlights of the text during individual feedback or group discussions.
- Do not be condescending. In other words, do not treat participants as some people may treat 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. Be focused. This facilitator guide will help you remember what to say. Just use it!

### *How can this facilitator guide help you?*

This facilitator guide will help you manage the course units. For each unit, this facilitator guide includes the following:

- a list of the procedures to complete the unit, highlighting the type of feedback to be given after each activity; and
- guidelines describing:
  - how to deliver presentations
  - how to introduce exercises
  - points to make in group discussions
  - how to lead a visit to a health facility.

Before the guidelines for each unit, this facilitator guide has a section entitled “guidelines for all units”. This section describes training techniques to use when working with participants during the course. It provides suggestions on how to work with a co-facilitator. It also includes important techniques to use when:

- participants are working individually
- you are providing individual feedback
- you are leading a group discussion.

The facilitator guide also includes a sample course agenda and matrix, which the course director will update and adapt to the local situation.

To prepare yourself for each unit, you should:

- read the unit and review the exercises;
- read in this facilitator guide all the information provided about the unit;
- plan with your co-facilitator how work on the unit will be carried out and what major points to make;
- collect any necessary supplies for exercises in the unit;
- make any slides or overhead transparencies needed;
- think about sections that participants might find difficult and questions they may ask;
- plan ways to help with difficult sections and answer possible questions; and
- plan questions that will encourage participants to think about using the skills taught in their own settings.

## Checklist of instructional materials needed in each small group

Item needed	Number needed
Facilitator guide	One for each facilitator
Manual for participants	One for each facilitator and participant
CD with complete set of course materials (electronic version)	One for each facilitator and participant
Copy of agenda	One for each facilitator and participant
List of participants and facilitators	One for each facilitator and participant
For reference as needed, a complete set of the reference material listed in the manual for participants (printed versions or downloaded from the Internet)	One set for each small group

## Checklist of supplies needed for work on units

Supplies needed for each person include:

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

Supplies needed for each group include:

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

Further, it is optimal to have computers available for participants or to encourage them to bring laptops to the course if they have them. This will facilitate preparing the plan and presenting the conclusions of group work.

# **GUIDELINES FOR ALL UNITS**

## **I. Facilitator techniques**

### **A. Techniques for motivating participants**

#### **Encourage interaction**

1. During the first day you will have several opportunities to talk with participants individually (for example, during coffee breaks or free time) or during plenary discussions. If you are friendly and helpful during these first interactions, the participants are likely:
  - to overcome their shyness;
  - to realize that you want to talk with them; and
  - to interact with you more openly and productively throughout the course.
2. Look carefully at each participant's contribution to group work and plenary discussions. Check to see whether participants are having any problems, even if they do not ask for help. If you show interest and give each participant undivided attention, the participants will feel more eager to do the work. Further, if the participants know that someone is interested in what they are doing, they are more likely to ask for help when they need it.
3. Be available to talk with participants as needed.

#### **Keep participants involved in discussions**

4. When you deliver presentations, frequently ask questions to check participants' understanding and to keep them actively thinking and participating. Questions that begin with "what," "why," or "how" require more than just a few words to answer. Avoid questions that can be answered with a simple "yes" or "no".

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

5. Acknowledge all participants' responses with a comment, a "thank you" or a definite nod. This will make the participants feel valued and encourage participation. If you think a participant has missed the point, ask for clarification or ask whether another participant has a suggestion. If a facilitator ridicules or ignores a comment, the participant may withdraw from the discussion entirely or not speak voluntarily again.
6. Answer participants' questions willingly, and encourage participants to ask questions when they have them rather than to keep the questions until later.
7. Do not feel compelled to answer every question yourself. Depending on the situation, you may turn the question back to the participant or invite other participants to respond. You may need to discuss the question with the course

director or another facilitator before answering. Be prepared to say “I don’t know but I’ll try to find out.”.

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

### **Keep the session focused and lively**

10. Keep your presentations lively.
  - Present information conversationally rather than read it.
  - Speak clearly. Vary the pitch and speed of your voice.
  - Use examples from your own experience, and ask participants for examples from their experience.
11. Write key ideas on a flipchart as they are offered. (This is a good way to acknowledge responses. The speaker will know that the idea has been heard and will appreciate having it recorded for the entire group to see.)

When recording ideas on a flipchart, use the participant’s own words if possible. If you must be briefer, paraphrase the idea and check it with the participant before writing it. You want to be sure the participant feels that you understood and recorded the idea accurately.

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

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

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

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

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

Thank participants whose comments are brief and to the point.

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

## **Manage any problems**

14. Some participants may talk too much. Here are some suggestions on how to handle an overly talkative participant:
- Do not call on this person first after asking a question.
  - After a participant has gone on for some time, say: “You have had an opportunity to express your views. Let’s hear what some of the other participants have to say on this point.” Then rephrase the question and invite other participants to respond, or call on someone else immediately by saying “Dr Samua, you had your hand up a few minutes ago.”
  - When the participant pauses, break in quickly and ask to hear from another member of the group or ask a question of the group, such as, “What do the rest of you think about this point?”
  - Record the participant’s main idea on the flipchart. As the participant continues to talk about the idea, point to it on the flipchart and say, “Thank you, we have noted your idea.” Then ask the group for another idea.
  - Do not ask the talkative participant any more questions. If the same participant answers all the questions directed to the group, ask for an answer from another individual specifically or from a specific subgroup. (For example, ask “Does anyone on this side of the table have an idea?”.)
15. Try to identify participants who have difficulty understanding or speaking the course language. Speak slowly and distinctly so you can be more easily understood, and encourage the participant’s efforts to communicate.

Discuss with the course director any language problems that seriously impair the ability of a participant to understand the written material or the discussions. It may be possible to arrange help for the participant.

Discuss disruptive participants with your co-facilitator or with the course director. (The course director may be able to discuss matters privately with the disruptive individual.) The facilitators’ meeting is the ideal place to discuss and solve these problems.

## **Reinforce participants’ efforts**

16. As a facilitator, you will have your own style of interacting with participants. However, a few techniques for reinforcing participants’ efforts include:
- avoiding the use of facial expressions or comments that could cause participants to feel embarrassed;
  - sitting or bending down to be on the same level as participants when talking to them;
  - answering questions thoughtfully rather than hurriedly;
  - encouraging participants to speak to you by allowing them time; and
  - appearing interested, saying “That’s a good question or suggestion.”

17. Reinforce participants who:
- try hard;
  - ask for an explanation of a confusing point;
  - do a good job on an exercise;
  - participate in plenary discussions; or
  - help other participants (without distracting them by talking at length about irrelevant matters).

## **B. Techniques for relating units to participants' jobs**

1. Discuss the use of procedures taught or discussed in preceding units, and ask participants whether they can apply them in their own professional context. This will help participants begin to think about how to apply what they are learning.
2. Reinforce participants who discuss or ask questions about using the procedures in their own professional context. Acknowledge and respond to their concerns.

## **C. Techniques for co-facilitators to work together**

1. Spend some time with the co-facilitator when assignments are first made. Exchange information about prior teaching experiences and individual strengths, weaknesses and preferences. Agree on roles and responsibilities and how you can work together as a team.
2. Assist one another in conducting plenary discussions. For example, one facilitator may lead a plenary discussion, and the other may record the important ideas on the flipchart. The second facilitator could also check the facilitator guide and add any points that have been omitted.
3. Each day, review the teaching activities that will occur the next day and agree who will do what (lead the discussion, collect the supplies, present an example using the overhead projector, etc.).
4. Work together on each unit rather than taking turns having sole responsibility for a unit. The facilitators' meeting is the ideal place to discuss and plan what is mentioned above.

## **II. When participants are working**

- Look available, interested and ready to help. Visit the groups from time to time during the group work.
- Watch the participants as they behave during group work, and offer individual help if you see a participant looking troubled, staring into space or not contributing to the discussion. These are clues that the participant may need help.
- Encourage participants to ask you questions whenever they need some help.
- If important issues or questions arise when you are talking with an individual, make note of them to discuss later with the entire group.
- If a question arises that you cannot answer adequately, obtain assistance as soon as possible from another facilitator or the course director.
- Review the points in this facilitator guide so you will be prepared to discuss the next exercise with the participants.

## **III. When leading a plenary discussion**

- Plan to conduct the plenary discussion at a time when you are sure that all participants will have completed the preceding group 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 plenary discussion and the major points to make.
- Begin the plenary discussion by reminding the participants of the objectives of the unit. Then ask the group rapporteurs to summarize the main conclusions of the group.
- The problems of Fictitia can be solved in different ways in the exercises. Be sure that the conclusions of each group are reasonable and that all participants understand how the conclusions were reached.
- Try to get most of the group members involved in the discussion. Record key ideas on a flipchart as they are mentioned. Keep your participation to a minimum but ask questions to keep the discussion active and on track.
- At the end of the discussion, summarize the group's conclusions or important points that were made. If possible, collect the electronic version of all group reports. They will be included in the final version of the CD to be distributed to participants. Give participants a copy of the answer sheet, if one is provided. Otherwise, distribute them a photocopy of the transparency used by the rapporteurs.

- 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; and
  - praising them for their ability to work together as a group.

#### **IV. When providing individual feedback**

- Before giving individual feedback, refer to the appropriate notes in this guide to remind yourself of the major points to make.
- You might have to provide feedback in front of the participants or written feedback after the course.
- Fill in the evaluation form provided adequately and use the criteria recommended for evaluation.
- Always reinforce the participant for good work by (for example):
  - commenting on how well the participant has understood how to prepare a plan;
  - showing enthusiasm for the participant’s ideas in preparing a plan for implementing collaborative TB/HIV activities;
  - mentioning that you enjoyed the opportunity to review the participant’s plan; and
  - commenting that the participant’s hard work is appreciated.
- Start filling in the “strengths” column of the evaluation sheet.
- After that fill in the “weaknesses” column of the evaluation sheet.
- Use an encouraging attitude in proposing recommendations.



## MATRIX OF THE COURSE

Unit	Title	Number of hours	Description
1	Introduction to the course	1.5	Icebreaker session: introduction of facilitators and participants  Plenary presentation of the course methods, style and objectives  Plenary discussion
2	How to prepare a plan for implementing collaborative TB/HIV activities	1.5	Plenary presentation and discussion on 1) why, when and how to write and update a plan and 2) how to implement collaborative TB/HIV activities within TB and HIV programmes  Presentation of the recommended template
3	Epidemiology	1.5	Plenary presentation and discussion of epidemiological data on TB, HIV/AIDS and TB/HIV, with focus on the country-specific data
4	Principles for controlling TB and HIV/AIDS	3.0	Plenary presentation and discussion on the principles of controlling TB and HIV/AIDS
5 part 1	The DOTS strategy for controlling TB	1.5	Plenary presentation and discussion on the WHO-recommended strategy for TB control (DOTS)
5 part 2	Clinical management of TB	1.5	Plenary presentation, group work and discussion on the main issues related to the clinical management of TB (case study)
6 part 1	Universal access to antiretroviral therapy	1.5	Plenary presentation and discussion on the “3 by 5” Initiative, presently considered equivalent to the recommended strategy for controlling HIV/AIDS
6 part 2	Clinical management of HIV/AIDS	2.0	Plenary presentation, group work and discussion on the main issues related to the clinical management of HIV/AIDS (case study)

<b>Unit</b>	<b>Title</b>	<b>Number of hours</b>	<b>Description</b>
7	Drug management for controlling TB and HIV/AIDS	1.5	Plenary presentation, group work and discussion on drug management for controlling TB and HIV/AIDS
8	The WHO interim policy on collaborative TB/HIV activities	2.0	Plenary presentation, group work and discussion on the principles of the WHO <i>Interim policy on collaborative TB/HIV activities</i>
9	Recording and reporting for implementation of collaborative TB/HIV activities	1.5	Plenary presentation and discussion on relevant country experiences of recording and reporting for TB and HIV/AIDS
10	Surveillance of HIV prevalence among people with TB disease	2.0	Plenary presentation, group work and discussion on the key issues on surveillance (case study)
11	Human resources development for implementing TB/HIV collaborative activities	2.5	Plenary presentation, group work and discussion on human resource development for developing collaborative TB/HIV activities (case study)
12	Monitoring and evaluating the implementation of collaborative TB/HIV activities	3.0	Plenary presentation, group work and discussion on how to monitor and evaluate the implementation of collaborative TB/HIV activities
13	Costing and budgeting for the implementation of collaborative TB/HIV activities	2.5	Plenary presentation, group work and discussion on budgeting for the implementation of TB/HIV collaborating activities, Global Fund to Fight AIDS, Tuberculosis and Malaria format (case study)
14	Case study on delivering services for TB and HIV/AIDS – the example of Malawi	3.0	Plenary presentation and discussion on the materials developed by a pilot country (such as Malawi) and/or by the country organizing the course
15	Field visit to a local health facility providing preventive, diagnostic and treatment services for TB and HIV/AIDS	5.0 <sup>a</sup>	Field visit to TB/HIV services, preceded by a presentation of their structure, followed by plenary discussion on how they are organized and might be improved

<b>Unit</b>	<b>Title</b>	<b>Number of hours</b>	<b>Description</b>
16	Individual finalization of plans for implementing collaborative TB/HIV activities	3.0	Tutored individual finalization of plans
17	Discussion of plans for the implementation of collaborative TB/HIV activities	2.0	Plenary presentation and discussion of two plans
18	Course evaluation	2.0	Discussion on the strengths, weaknesses and outcomes of the course

**Note:** 30 minutes is scheduled daily to allow participants to work on their own plan.

<sup>a</sup> The timing of Unit 15 may depend on local circumstances, the locations and hours of health facilities to be visited, etc.

## AGENDA OF THE COURSE

An example of an agenda is presented below:

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Session 1	<u>Registration</u> <u>Unit 1:</u> Introduction to the course	<u>Unit 5, part 1:</u> The DOTS strategy for controlling TB	<u>Unit 8:</u> The WHO interim policy	<u>Unit 12:</u> Monitoring and evaluation	<u>Unit 15:</u> Field visit	<u>Unit 16:</u> continued <u>Unit 17:</u> Discussion of selected plans
<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
Session 2	<u>Unit 2:</u> How to prepare a plan <u>Unit 3:</u> Epidemiology	<u>Unit 5, part 2:</u> Clinical management of TB <u>Unit 6, part 1:</u> The “3 by 5” Initiative	<u>Unit 9:</u> Recording and reporting <u>Unit 10:</u> Surveillance of HIV prevalence among people with TB disease	<u>Unit 12:</u> continued <u>Unit 13:</u> Costing and budgeting	<u>Unit 15:</u> continued	<u>Unit 17:</u> continued <u>Unit 18:</u> Course evaluation
<i>Lunch</i>	<i>Lunch</i>	<i>Lunch 13–14</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
Session 3	<u>Unit 4:</u> Principles for controlling TB and HIV/AIDS	<u>Unit 6, part 2:</u> Clinical management of HIV/AIDS	<u>Unit 11:</u> Human resource development	<u>Unit 13:</u> continued <u>Unit 14:</u> Case study (Malawi)	<u>Unit 15:</u> continued	
<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	
Session 4	<u>Unit 4:</u> continued	<u>Unit 7:</u> Drug management	<u>Unit 11:</u> continued	<u>Unit 14:</u> continued	<u>Unit 16:</u> Individual finalization of plans	

# **FACILITATOR GUIDELINES FOR UNIT 1: INTRODUCTION TO THE COURSE**

<b>Procedures</b>
1. Participate in the inauguration of the course.
2. Conduct the icebreaker session.
3. Introduce Unit 1: Introduction to the course.
4. Explain your role as facilitator.
5. Give the presentation in Document 1.1.
6. Lead the plenary discussion and answer questions.
7. Carry out any necessary administrative tasks.
8. Summarize the unit.

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

## **1. Participate in the inauguration of the course**

According to the needs and the country-specific traditions, an official opening ceremony can be organized. In agreement with the course director, help to coordinate this procedure, ensuring that it is kept within the time allocated.

## **2. Conduct the icebreaker session**

Introduce and animate the icebreaker session. Distribute the list of participants and facilitators before starting the icebreaker session. Leave a copy of the list of names where everyone can see it. This will help you and the participants learn each other's names during the icebreaker session.

Participants are paired randomly. Each pair has five to eight minutes to get to know each other regarding the following:

- name
- preference on how to be addressed during the course
- country or region of origin
- job or expertise
- main characteristic, feature or quality
- main hobby
- what he or she can teach or add to the group.

Each participant will introduce his or her partner, mentioning the above characteristics. Choose the couples randomly, alternating participants and facilitators.

Explain to participants that you would like to learn more about participants' experience and responsibilities within the national TB control programme and/or national HIV/AIDS programme. This will help you understand their situations and be a better facilitator for them. During the course you will further discuss what they do in their respective programmes.

Consider using 45 minutes for this icebreaker. The time for each pair to get to know each other will depend on the number of participants.

### **3. Introduce Unit 1: Introduction to the course**

Ask the participants to read Unit 1 of the manual for participants, to familiarize themselves with the manual (and unit) structure and content. Explain that each unit starts by listing the objectives of the unit. Then the methods used in the unit are listed. Finally, the materials necessary to complete the unit are presented. Each material is numbered with the unit number, followed by the progressive number of the unit document. In Unit 1 the first document (Introduction to the course) is Document 1.1. The second document (Course evaluation form) is 1.2/18.1. It has a double number, as it is also the first document of Unit 18.

Explain to participants that they have an electronic version of the working documents in a CD to be provided in the course.

Explain that these materials, like all the materials 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.

### **4. Explain your role as facilitator**

Explain to participants that, as facilitator, your role as well as other facilitators throughout this course will be:

- to guide them through the course activities;
- to clarify information they find confusing;
- to give feedback on exercises where indicated;
- to lead group discussions and answer questions;
- to lead a field visit at a health facility; and
- to exchange your experience in implementing collaborative TB/HIV activities with them.

### **5. Give the presentation in Document 1.1**

Give presentation 1.1. The notes on the slides for presentations are at the end of each unit.

Three important issues to be raised are the following:

- Introduce Fictitia, the imaginary TB/HIV country with a high burden of TB and HIV in which the exercises of this training course are based. Explain that proposing solutions to the problems Fictitia is facing will stimulate participants to find solutions to the problems of their own countries or regions. The map of the country shows Fictitia's geography. Additional information on Fictitia is available in Annex 1 of the manual for participants.
- The method of evaluating the course includes the questionnaire (course evaluation form, Document 1.2/18.1). Encourage participants to fill in this form at the conclusion of each unit. If it is filled at the end of the course, the quality of answers and suggestions will deteriorate, as many details will be forgotten. Remind participants daily about that.
- Participants are requested to prepare a plan for implementing collaborative TB/HIV activities by the end of the course. The plan template to be completed is shown in slide 17, Document 2.1. The following unit is designed to explain how this plan should be prepared.

## **6. Lead the plenary discussion and answer questions**

Allow participants to raise any question related to the course methods, style and learning objectives or Unit 1. It is important to solve any problem arising as soon as possible.

Have the participants remain seated. You should ask the questions and have the participant answer you, as in a conversation. It is very important at this point that the participants feel relaxed and not intimidated or put on the spot.

See the guidelines for all units in this guide for further suggestions.

## **7. 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, transport of participants or per diem payments.

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

Distribute the course agenda and point out when sessions start and close, at what time breaks are, etc.

## **8. Summarize the unit**

## Notes for the slides for Unit 1

Document No. 1.1

### *Introduction to the course*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 1 are reported as presented in the manual for participants.

#### **Slide 3: Goal of the course**

The slide is self-explanatory. The goal of the course is reported as presented in the manual for participants.

#### **Slide 4: Objectives of the course – 1**

The slide is self-explanatory. The objectives of the course are reported as presented in the manual for participants. The first objective of the course is to analyse data on the key components of national TB control programmes and national HIV/AIDS programmes, as listed on the slide.

#### **Slide 5: Objectives of the course – 2**

The slide is self-explanatory. The objectives of the course are reported as presented in the manual for participants. The second objective of the course is to identify gaps and priorities in TB/HIV collaboration and propose solutions to facilitate the implementation of collaborative TB/HIV activities. The third course objective is to prepare a plan for implementing collaborative TB/HIV activities.

#### **Slide 6: Course management**

The course is designed to be interactive, being based on exercises. The exercises are based on problem-solving. They refer to Fictitia, an imaginary country with a high burden of TB and HIV where training activities are based. While proposing solutions to the problems Fictitia is facing, participants are stimulated to find solutions to the problems of their own countries or regions. By the end of the course, participants should prepare a plan for implementing collaborative TB/HIV activities, capturing what was discussed during the course.

#### **Slide 7: Materials provided**

The slide is self-explanatory. All materials listed on the slide are reported in the manual for participants.

#### **Slide 8: Map of Fictitia, a country with a high burden of TB and HIV**

The map of the country shows how Fictitia is. Additional information on Fictitia is available in Annex 1 of the manual for participants.

#### **Slide 9: Course evaluation**

The slide focuses on the evaluation performed by participants (completing the course evaluation form, see Document 1.2 of the manual for participants) and by facilitators (evaluating the participants' plans).

#### **Slide 10: Course evaluation form**

The slide shows the section of the course evaluation form to be filled in by participants daily.

## **FACILITATOR GUIDELINES FOR UNIT 2: HOW TO PREPARE A PLAN FOR IMPLEMENTING COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 2: How to prepare a plan for implementing collaborative TB/HIV activities.
2. Give the presentation in Document 2.1.
3. Lead the plenary discussion and answer questions.
4. Summarize the unit.

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

### **1. Introduce Unit 2: How to prepare a plan for implementing collaborative TB/HIV activities**

Ensure that a full-page A4 printout of the plan template is distributed to participants (from Document 2.1). If participants have access to a computer, the use of the Word file (Document 2.2) is recommended.

Ask the participants to read the first page of Unit 2 of the manual for participants to become familiar with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 2.1 of the manual for participants.

### **2. Give the presentation in Document 2.1**

Give presentation 2.1. The notes for the presentation are at the end of this unit. To animate the presentation, pose questions using slide animation such as when to start planning and what to write on the plan. Important issues to be raised are the following:

- Remind participants that the plan to be prepared by the end of the course is an exercise. The planning exercise will hopefully stimulate them to contribute with concrete actions in implementing collaborative TB/HIV activities in their own working context, following existing policies, plans and guidelines.
- List the basic contents of the plan as explained in detail in slide 7.
- Introduce for the first time the 12 collaborative activities of the *Interim policy on collaborative TB/HIV activities* (divided into three main groups: establishing mechanisms for collaboration, decreasing the burden of TB among people living with HIV/AIDS and decreasing the

burden of HIV among people with TB disease) following slide 11. They are discussed further in Unit 8.

- Introduce for the first time the definitions of monitoring and evaluation as suggested in slide 13. The topic is further discussed in Unit 12.
- The recommended template for the plan is available as a print-out from the slide kit (Document 2.1) or as a Word file from the CD (Document 2.2).
- The plan, prepared on a daily basis, should be ready by the last day. Some time is allocated for individual finalization of the plans (see Unit 16). Two plans will be selected for plenary discussion on the last day of the course (see Unit 17).
- Explain that 30 minutes is scheduled daily at the end of every afternoon session to allow participants to prepare their plans.

### **3. Lead the plenary discussion and answer questions**

To illustrate and discuss different aspects of the plan, you may propose three or more of the following:

- Ask which of the regions represented have a regional TB/HIV plan (2 minutes).
- Organize a didactic explanation on how to prepare the introduction of a plan (one participant is requested to give an example; total time 5 minutes for the presentation and 10 minutes of discussion based on the previous presentation).
- Select pairs of participants, pairing them randomly.
- Encourage the pairs of participants to state the goals (such as to have a functioning collaborative TB/HIV mechanism in place), objectives (such as to establish a mechanism for TB/HIV collaboration) and targets (such as develop a plan for collaborative TB/HIV activities by ...) on the following statement: “Establish the mechanism for collaboration” (suggested time: 2 minutes to state and 8 minutes to present and discuss).
- Guide a couple of participants to discuss in front of the group the resources and partners for collaborative TB/HIV activities (suggested time: 5 minutes for discussion between two participants and 5 minutes for plenary discussion).
- Divide the participants into groups of four people (two pairs together). They are assigned 1000 gold pieces to be allocated to only 4 of the 12 collaborating activities for the next year. They should decide where to allocate them and why (suggested time: 5 minutes to decide and 10 minutes to present the findings in plenary discussion).

Thus, make sure that the participants clearly understand what they should prepare during the week (the plan for implementing collaborative TB/HIV activities) as a product of the course.

See the guidelines for all units in this guide for further suggestions.

### **4. Summarize the unit**

## Notes for the slides for Unit 2

Document No. 2.1

### *How to prepare a plan for implementing collaborative TB/HIV activities*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 2 are reported as presented in the manual for participants.

#### **Slide 3: Outline of the presentation**

The slide introduces the outline of the presentation. Each topic listed in the slide is further explained in detail.

#### **Slide 4: Context**

The slide is self-explanatory. The plan to be prepared by the end of the course is an exercise. The planning exercise will hopefully encourage participants to contribute concrete actions in implementing collaborative TB/HIV activities in their own working context, following existing policies, plans and guidelines.

#### **Slide 5: Initial questions – 1**

The slide shows the questions participants might be asking themselves.

#### **Slide 6: Initial questions – 2**

What should be planned? The implementation of collaborative TB/HIV activities. The main reason to plan is to allow the effective use of available resources (human, financial, technical, etc.).

#### **Slide 7: Content of the plan**

The slide is self-explanatory. The contents of the plan are listed and are further explained in detail in slides 8 to 14.

#### **Slide 8: Background**

The background should be brief. It should describe the context of the implementation plan (for example, country, region, district, etc.). The recent and current situation should be described, focusing on TB and HIV/AIDS. A few relevant data on both diseases should be mentioned (such as incidence, prevalence, etc.). Actors and actions taken should be also described.

#### **Slide 9: Goal, objectives and targets**

Goal, objectives and targets are defined, from the broader to the more narrow perspective.

#### **Slide 10: Activities**

Activities are the actions to be performed or delivered to achieve the proposed objectives.

#### **Slide 11: Collaborative TB/HIV activities**

The slide shows the 12 collaborative activities (divided into three main groups: establishing mechanisms for collaboration, decreasing the burden of TB among people living with HIV/AIDS and decreasing the burden of HIV among people with TB disease) of the *Interim policy on collaborative TB/HIV activities*. They are discussed further in Unit 8.

**Slide 12: Resources and partners**

The slide is self-explanatory. Examples of resources and partners to be included in the plan are listed.

**Slide 13: Monitoring and evaluation**

Monitoring and evaluation are defined. The topic is discussed further in Unit 12.

**Slide 14: Budget**

The slide suggests that the amount of money needed should be listed for each activity according to quarter, further specifying the appropriate category.

**Slides 15–18: Plan preparation – 1, 2 and 3**

The slides are self-explanatory. Slide 16 emphasizes the importance of drafting the plan on a daily basis.

Slide 17 shows the plan template to be completed by the end of the course. The left section of the template includes three columns (objectives, main activities and indicators and responsible person or agency). The right section of the template includes the activities to be performed (and their related budget) by quarter. The template (derived by the one used to plan the activities related to the Global Fund to Fight AIDS, Tuberculosis and Malaria) is also available in an electronic format (Word file) as Document 2.2.

**Slides 19: Plan presentation**

The plan, prepared on a daily basis, should be ready by the last day. Some time will be allocated for individual finalization of the plans (see Unit 16). Two plans will be selected for plenary discussion on the last day of the course (see Unit 17).

## **FACILITATOR GUIDELINES FOR UNIT 3: EPIDEMIOLOGY**

<b>Procedures</b>
1. Introduce Unit 3: Epidemiology.
2. Give the presentations in Documents 3.1, 3.2 and 3.3.
3. Lead the plenary discussion and answer questions.
4. Summarize the unit.

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

### **1. Introduce Unit 3: Epidemiology**

Ask the participants to read the first page of Unit 3 of the manual for participants, to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Documents 3.1, 3.2 and 3.3 in the manual for participants.

### **2. Give the presentation in Documents 3.1, 3.2 and 3.3**

Give presentations 3.1, 3.2 and 3.3. The notes for the presentations are at the end of this unit.

To animate the presentations, pose questions related to the epidemiology of TB, the epidemiology of HIV/AIDS and the epidemiology of TB/HIV. Examples of questions are the following:

- Document 3.1:  
Slide 3: What was the main determinant of the downward trend in the annual risk of TB infection?  
Slide 7: What is happening in Kenya over time?
- Document 3.2:  
Slide 12: Why is TB only the seventh leading cause of death?  
Slide 14: Can HIV seroprevalence be reduced among pregnant women in Africa?
- Document 3.3:  
Slides 3 and 6: What are the three mechanisms by which HIV fuels the TB epidemic?  
Slide 5: What is the annual and lifetime risk for HIV- positive and -negative individuals to develop TB disease given TB infection?

Important issues to be raised are the following:

- Document 3.1
  - Improvement of the socioeconomic conditions is the main factor responsible for the downward trend in TB in affluent countries. HIV is the main factor responsible for the increase in the number of people with TB disease in sub-Saharan Africa. The increase is particularly important for sputum smear-negative cases.
  - The global increase in TB notifications is related to the HIV-related increase in the number of people with TB disease in sub-Saharan Africa.
- Document 3.2

The numbers related to the HIV/AIDS epidemic are dramatic. AIDS has, among other effects, that of determining a relevant economic loss of the households affected. There is evidence of the effectiveness of prevention programmes in Africa, Asia and Europe.
- Document 3.3

Latent TB infection is the most powerful risk factor for the development of TB disease. People living with HIV/AIDS have more than a 30% lifetime risk of developing TB disease given TB infection. The estimated annual TB incidence per 100 000 adults increases proportionally to the HIV prevalence among adults 15–49 years of age. When HIV prevalence increases by 1%, the TB incidence increases by 26 per 100 000 population per year.

### **3. Lead the plenary discussion and answer questions**

To manage the discussion, you may propose the following:

- Ask participants to describe the characteristics of TB, HIV/AIDS and TB/HIV epidemiology in their own setting (national or subnational).
- Emphasize the following teaching points and ask participants to comment.
  - HIV dramatically contributes to the worsening of the TB epidemic.
  - There are epidemiological reasons for TB/HIV collaboration.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this Guide for further suggestions.

### **4. Summarize the unit**

## Notes for the slides for Unit 3

Document No. 3.1

### *Epidemiology of TB*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the presentation**

The slide is self-explanatory. The objectives of the presentation are reported as presented in the manual for participants.

#### **Slide 3: Risk of TB infection in European countries**

The annual risk of TB infection has declined over time in European countries. Socioeconomic improvement was initially the main determinant of the downward trend in the annual risk of TB infection. Then the different interventions of TB control programmes (including chemotherapy) contributed to accelerating this downward trend. In the Netherlands, for example, the decline exceeded 10% per annum. In several developing countries (especially those with a high prevalence of HIV), the decline in the annual risk of TB infection is much less evident. Documents 3.2 and 3.3 describe this topic further.

#### **Slide 4: Age-specific prevalence of TB infection in Switzerland, 1920–1990**

The slide shows that in 1920, in Switzerland, the vast majority of individuals at the age of 20 years were already infected by *Mycobacterium tuberculosis*. Progressively, over years, the old generations of infected individuals were followed by new generations less and less infected by *M. tuberculosis*, especially in younger age groups. As a result of the diminished circulation of bacilli, the probability of becoming infected (very low in younger age groups) increased with age, remaining much lower than that of the older cohorts. For example, in Switzerland, at the age of 20 years the proportion of infected individuals was less than 20% in 1978 and near zero in 1990. As infection is the essential prerequisite to developing TB disease, and TB is becoming more and more frequently a disease of elderly people in low-incidence countries. In contrast, in high-incidence countries the present situation is similar to that of Switzerland in 1920. The presence of a high prevalence of TB infection among young individuals and a high prevalence of HIV in the same age groups will lead to a rapid deterioration of the TB situation.

#### **Slide 5: TB reported in Switzerland by age, 1990**

In low-incidence countries, fewer and fewer TB cases will be observed over time in the native population (and among them, elderly people will prevail), whereas more and more cases will be detected among (young) immigrants from countries with high TB prevalence.

#### **Slide 6: Reported incidence of TB in African countries, 1990–2002**

What is described above explains why the incidence of notified TB cases is increasing so dramatically in African countries.

#### **Slide 7: TB case notifications, sputum smear-positive and all forms of TB in Kenya, 1990–2002**

The slide shows how the number of sputum smear-positive cases in Kenya is increasing less rapidly than the total number of TB cases. This is because the proportion of smear-negative cases is increasing over time in high-HIV prevalence countries, posing additional problems to the TB programme such as case detection.

**Slide 8: Global epidemiology of TB**

The slide is self-explanatory. Note that 80% of the total burden of cases and the vast majority of deaths occur in the 22 high-burden countries.

**Slide 9: TB notification rates, 2002**

The slide shows where the majority of TB cases are notified. Note that, comparing the map of slide 9 with that of slide 10 (estimates), the vast majority of countries are changing colour: the estimated case notification rates are, in general, higher than the observed ones.

**Slide 10: 2002: highest estimated TB rates per capita were in Africa**

The slide is self-explanatory. The TB rates in sub-Saharan Africa are impressive. As we will see, they will drive the overall trend.

**Slide 11: 2002: most TB cases were in India and China**

Asia accounts for 59% of the overall burden of cases (mainly China and India), 21% in Africa and 10% in Europe (mainly eastern Europe).

**Slide 12: Trends in notification rates in four other regions: decreases and increases**

The slide shows how TB is declining in industrialized countries and in the Middle East and North Africa while increasing in Africa (countries with a high prevalence of HIV), in countries in the former Soviet Union and in selected central European countries (Bulgaria and Romania).

**Slide 13: Growth of TB in Africa and eastern Europe**

The slides recalls the same concept described in slide 12, showing how the growth of TB cases is much less evident in African countries with a low incidence of HIV.

**Slide 14: Prevalence of multi-drug-resistant TB in new cases: 1994–2003**

The slide shows the areas where the prevalence of multi-drug-resistant TB is epidemiologically relevant. A special approach is necessary when, for example, one new case in ten is multi-drug-resistant, as observed in some territories of China and the former Soviet Union.

**Slide 1: Title**

**Slide 2: Objectives of the presentation**

The slide is self-explanatory. The objectives of the presentation are reported as presented in the manual for participants.

**Slide 3: Global estimates for adults and children, end 2003**

Based on these numbers (really impressive), considering HIV/AIDS a global emergency is realistic.

**Slide 4: The global AIDS epidemic, 1990–2003**

Globally the trend is increasing both in absolute numbers and HIV prevalence. The epidemic has not yet plateaued at the global level.

**Slide 5: Estimated regional HIV prevalence trends**

To derive the HIV prevalence trends shown in this slide, assumptions were made as to when extensive (measurable) HIV prevalence first occurred in each region. Then a curve was fitted to the estimates published by UNAIDS/WHO for the years 1995, 2000, 2001 and 2002. Few HIV infections were estimated to have occurred during the 1970s. The increasing HIV prevalence in sub-Saharan Africa that began prior to the 1980s is evident in this slide. By 2001, about 9% of the people 15–49 years old in sub-Saharan Africa were infected with HIV. The region with the next highest prevalence rate is the Caribbean, where more than 2% of those 15–49 years old were estimated to be living with HIV/AIDS in 2002. Heterosexual HIV transmission predominates in sub-Saharan Africa and in the Caribbean and to a lesser extent in South and South-East Asia, where the regional prevalence reached 0.6% in the year 2001.

**Slide 6: Adults and children estimated to be living with HIV/AIDS as of end 2003**

In 2003, an estimated 40 million adults and children were living with HIV/AIDS. The map shows how they are distributed by region.

**Slide 7: Estimated number of adults and children newly infected with HIV during 2003**

Five million people were newly infected with HIV during 2003. The map shows how they are distributed by region.

**Slide 8: About 14 000 new HIV infections per day in 2003**

And the numbers of these people are increasing: 14 000 new HIV infections per day in 2003. More than 95% are in low- and middle-income countries, almost 2000 are among children under 15 years of age, about 12 000 are among people 15–49 years old, of whom almost 50% are women, and about 50% are 15–24 years old.

**Slide 9: Estimated adult and child deaths from HIV/AIDS during 2003**

Three million people died from HIV/AIDS during 2003.

**Slide 10: Proportion of people with HIV/AIDS living in each global region**

The same concept already presented in the map is presented here in a different format. The contribution of sub-Saharan Africa is impressive.

**Slide 11: Leading causes of disease burden in Africa, 2000**

AIDS is the leading cause of disease burden in Africa, representing 20.6% of the total. The figure on the upper right side of the slide shows, in absolute numbers, the progression of the epidemic in sub-Saharan Africa.

**Slide 12: Leading causes of death in Africa, 2000**

Similarly, AIDS represents also the leading cause of death in Africa. The number of people who died is shown, in absolute numbers, in the upper right side of the slide. Note that the people who die from TB who have AIDS (as TB is an AIDS-defining condition) are notified as AIDS deaths. This explains why TB is only the seventh leading cause of death.

**Slide 13: HIV prevalence among adults in sub-Saharan Africa, 1986–2001**

The slide shows the trend in HIV prevalence among adults in the general population over time in countries in sub-Saharan Africa. The initial spread in western and eastern Africa, in more recent years, has been overtaken by the epidemic's growth in the southern part of the continent.

There are now seven countries – all in southern Africa, where more than one in five adults is living with HIV. And yet, a decade ago, the prevalence in most of these countries was well under 5%.

**Slide 14: Declining HIV seroprevalence among pregnant women in selected urban areas of Africa: 1985–2002**

Empirical evidence from several countries shows that HIV transmission can be prevented on a large scale, especially among young people. The best evidence is from Uganda, where the HIV prevalence has continued to fall, nationwide, from the highs reached in the late 1980s. Uganda's success is well known and was built on a combination of strong leadership from above, including the outspoken AIDS fight mounted by President Museveni, together with strong community action through organizations such as The AIDS Support Organization (TASO). Joining the evidence from Uganda, there is also evidence for sustained falls in HIV among young women in Ethiopia and Rwanda, although confined to the capital cities of these countries, reflecting the distribution to date of efforts against AIDS.

**Slide 15: HIV prevalence (%) among 15- to 24-year-olds in selected countries in sub-Saharan Africa, 2001–2003**

The prevalence of HIV in sexually active age groups is significantly higher among women. This is the typical pattern of heterosexual transmission of the disease, with most cases being transmitted during non-fixed partnerships.

**Slide 16: HIV prevalence among adults in Asia: 1986–2001**

The progression of the HIV epidemic in Asia is presented similarly to slide 13.

**Slide 17: Estimated number of new HIV infections in Thailand by year and changing mode of transmission, 1985–2002**

The slide provides evidence that prevention efforts can be successful. In Thailand in 1990–1991 (when new infections peaked), 90% of the infections occurred among sex workers, whereas spouses accounted only 5% of the infections. Ten years later, with much lower numbers, the situation reversed. Only 15% of the infections were among sex workers (who were the target of the prevention campaign) and 50% among spouses, since prevention efforts took more time to be effective in preventing heterosexual transmission of HIV in cohabiting partnerships.

**Slide 18: HIV prevalence rates among sex workers and injecting drug users in selected sites in Indonesia, 2000–2001**

Indonesia is a classic case where the warning signs of a major epidemic are visible. Having seemingly escaped the epidemic until recently, new evidence since 2000 has shown increasing rates of HIV among both sex workers and, in particular, the increasing number of injecting drug users.

**Slide 19: HIV prevalence among adults in Latin America and the Caribbean, 1986–2001**

The progression of the HIV epidemic in Latin America and the Caribbean is presented similarly to slides 13 and 16.

**Slide 20: AIDS cases notified by area in the European Region of WHO, 1995–2002**

In the European Region, the patterns of the epidemic (and also the results of prevention efforts) differ in the western, central and eastern parts of the Region. AIDS cases are growing in eastern Europe (upper right corner of the slide) and declining in central and western Europe. Note that the absolute number scales reported in the vertical axis differ.

**Slide 21: AIDS incidence trends in the European Union, 1980–1999**

According to the estimates of EuroHIV (the surveillance unit in Europe for HIV/AIDS), the overall incidence of HIV was declining, but it may now have stabilized. Similarly, after the introduction of highly active antiretroviral therapy (HAART), the AIDS incidence trend is declining. The estimated trend of AIDS incidence without highly active antiretroviral therapy (upwards) is also indicated.

**Slide 22: Number of deaths reported among people living with HIV/AIDS cases in western Europe, 1997–2001**

The number of deaths reported among people living with HIV/AIDS in western Europe is declining over time as a result of prevention measures and of antiretroviral therapy.

**Slide 23: New HIV infections notified by area, WHO European Region, 1995–2002**

In central Europe, notifications of new HIV infections are declining again after having stabilized in 1999. In western Europe the numbers and rates are increasing in contrast to eastern Europe. Note that the absolute number scales reported in the vertical axis differ.

**Slide 24: Adult mortality attributable to HIV, community-based studies in Africa, 1990–1996**

According to community-based studies performed in Africa in the 1990s, the excess mortality due to HIV (right section of the bars, measured as mortality per 1000 person–years) is relevant and increasing with HIV seroprevalence.

**Slide 25: Changes in life expectancy in selected African countries with high and low HIV prevalence, 1950–2005**

The difference in life expectancy between countries at high and low prevalence of TB is increasing over time.

**Slide 26: Children orphaned by AIDS: trends in selected African countries**

In sub-Saharan Africa, there are already 11 million children orphaned by AIDS and their number is expected to grow to 20 million by 2010.

**Slide 27: Percentage of workforce lost to AIDS by 2005 and 2020 in selected African countries**

The impact of AIDS on workforce loss in countries with a high HIV prevalence is relevant and expected to grow in the future. The slide shows the estimated percentage of the workforce lost by 2005 (shorter bars) and 2020 (taller bars).

**Slide 28: Reduction in production in a household with an AIDS death, Zimbabwe**

According to data available (an example from Zimbabwe is reported in the slide), the reduction in household output ranges from 30 to 60% for the different crops examined.

**Slide 1: Title**

**Slide 2: Objectives of the presentation**

The slide is self-explanatory. The objectives of the presentation are reported as presented in the manual for participants.

**Slide 3: HIV fuels the TB epidemic (1)**

The slide is self-explanatory. The commonest mechanism by which HIV fuels the TB epidemic is represented by the enhanced progression of latent (or recently acquired) infection to TB disease. This risk has been measured, being 3–13% per year. The concept is further discussed in the following two slides.

**Slide 4: Incidence of TB among people infected with TB: HIV-positive versus HIV-negative**

Among HIV-negative individuals, the risk of progression from infection to disease is 5% in the first two years and less than 10% during life.

**Slide 5: Incidence of TB among people infected with TB: HIV-positive versus HIV-negative**

The second slide shows that the lifetime risk among HIV-positive individuals exceeds 30%.

**Slide 6: HIV fuels the TB epidemic (2)**

This slide reports the other two mechanisms by which HIV fuels the TB epidemic: the increased rates of recurrence and the increased risk of TB transmission within the general population determined by the extra cases generated by HIV through mechanisms 1 and 2.

**Slide 7: Evidence of the interaction between TB and HIV epidemiology (1)**

Several observations provide evidence for the interaction between the HIV and TB epidemic. First, we are going to discuss the proportion of people infected with HIV among people with TB disease.

**Slide 8: Estimated HIV prevalence among people with TB disease, 2002**

The map reports the estimated HIV prevalence among people 15–49 years old who have TB disease. Several countries in sub-Saharan Africa have proportions exceeding 50%.

**Slide 9: Estimated prevalence of HIV among people with TB disease per 100 000 population, 2000**

This other map presents the global estimates of HIV prevalence among people with TB disease, showing how sub-Saharan Africa contributes 9.5 million and South-East Asia 2.3 million people infected with both.

**Slides 10 and 11: Countries ranked by number of TB cases attributable to HIV and rate**

Countries are ranked by the number of TB cases (in thousands) attributable to HIV and the number of TB cases attributable to HIV per 100 000 population. Note that 80% of total number of cases are above the red line and 90% of the total number are above the blue line.

**Slide 12: Evidence of the interaction between TB and HIV epidemiology (2)**

The second level of evidence derives from the increase in rates of TB in settings with high HIV prevalence.

**Slide 13: Estimated TB incidence versus HIV prevalence in high-burden countries**

The estimated annual TB incidence per 100 000 adults increases proportionally with the HIV prevalence among adults 15–49 years of age. When HIV prevalence increases by 1%, the TB incidence increases by 26 per 100 000 population per year.

**Slide 14: TB epidemic driven by HIV: Nairobi**

As shown by the observations in Nairobi, a mounting HIV epidemic (red curve) heralds a mounting TB epidemic (blue curve), and the delay is about six years.

**Slide 15: Evidence of the interaction between TB and HIV epidemiology (3)**

The third level of evidence is provided by the frequency of deaths and diseases caused by TB and among people living with HIV/AIDS.

**Slide 16: TB is the main killer among people living with HIV/AIDS in autopsy studies**

The slide is self-explanatory. TB is the main killer in Côte d'Ivoire and the Democratic Republic of the Congo.

**Slide 17: TB case-fatality rates: Africa**

In Africa the TB case-fatality rate among people living with HIV/AIDS is 3.5 times higher than that among HIV-negative people.

**Slide 18: Proportions of people with TB disease who died according to their HIV status**

The same concept is shown in this slide. The cumulative death rate is much higher for HIV-positive than for HIV-negative people with TB disease in this 36-month follow-up study in Ethiopia.

**Slide 19: TB incidence rates in HIV-infected populations in Africa**

TB morbidity is also hugely increased among people living with HIV/AIDS. The annual incidence rates of TB in HIV-infected populations in Africa are presented in a sample of countries. They range from 2% to 10%. The bars indicate 95% confidence intervals.

**Slide 20: TB is the main opportunistic infection among people with advanced HIV/AIDS in Thailand, five sentinel sites, 1992–1993**

The slide is self-explanatory. TB (38% of the total) is the main opportunistic infection in Thailand.

**Slide 21: Top five diseases indicating AIDS, WHO European Region, 2002**

TB is the third most prevalent AIDS-defining disease in western Europe, the first in central Europe and the second in eastern Europe.

**Slide 22: Smear-positive case detection is falling in some African countries with high HIV prevalence**

HIV also changes the clinical presentation of TB. One important phenomenon is the reduction in the proportion of smear-positive pulmonary TB. This and the increase in extrapulmonary TB makes TB diagnosis more difficult in settings with a high HIV prevalence.

**Slide 23: To address the TB/HIV burden, reduce:**

The slide is self-explanatory, listing major approaches required to reduce HIV transmission, TB transmission, TB reactivation in among HIV-positive people, HIV progression and TB incidence.

**Slide 24: Efficacy of six months of isoniazid preventive therapy among people living with HIV/AIDS during follow-up in Uganda**

One of the most burning issues is preventive therapy of latent TB infection among people living with HIV/AIDS. People receiving isoniazid preventive therapy are less likely to develop TB than those receiving placebo. The cumulative incidence is lower for the regimen including two or three drugs for three months (rifampicin and isoniazid (RH) or including pyrazinamide (RHZ)) than for the regimens including isoniazid for six months (6H). The benefit of isoniazid is lost after a few years.

**Slide 25: Antiretroviral therapy and the incidence of TB**

Two large observational studies performed in Europe and the United States (settings with low HIV and low TB prevalence and use of highly active antiretroviral therapy) obtained 60–80% reduction of the incidence of active TB. Similarly, in a setting with high TB/HIV transmission like Brazil, the incidence of active TB was also reduced by 80% using highly active antiretroviral therapy.

**Slide 26: TB among people living with HIV/AIDS in Brazil**

The annual incidence of pulmonary and disseminated TB declined among people living with HIV/AIDS in Brazil. This decrease was gradually more evident as the number of antiretroviral drugs increased from one to three.

## **FACILITATOR GUIDELINES FOR UNIT 4: PRINCIPLES FOR CONTROLLING TB AND HIV/AIDS**

<b>Procedures</b>
1. Introduce Unit 4: Principles for controlling TB and HIV/AIDS.
2. Give the presentations in Documents 4.1 and 4.2.
3. Lead the plenary discussion and answer questions.
4. Summarize the unit.

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

### **1. Introduce Unit 4: Principles for controlling TB and HIV/AIDS**

Ask the participants to read the first page of Unit 4 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Documents 4.1 and 4.2 in the manual for participants.

### **2. Give the presentation in Documents 4.1 and 4.2**

Give presentations 4.1 and 4.2. The notes for the presentations are at the end of this unit.

To animate the presentation, pose questions related to control of TB and HIV/AIDS. Examples of questions are the following:

- Document 4.1:
  - Slide 3: What are the core elements of the strategy for controlling TB?
  - Slide 26: What poor application of effective intervention should be avoided at any cost?
  - Slide 29: Is early diagnosis and treatment alone sufficient to control TB in settings with a high HIV prevalence?
- Document 4.2:
  - Slide 3: What are the three main ways in which HIV infection is transmitted and options for preventing this?
  - Slide 5: Which of the various methods of transmission discussed above has the highest probability of transmission per contact?
  - Slide 14: What are the universal precautions?

Important issues to be raised are the following:

- Document 4.1
  - Prompt diagnosis and effective treatment are the core elements of the strategy for controlling TB.
  - Implementing irregular treatment is much more dangerous to the overall epidemiological situation than no intervention at all.
  - Even technically sound early diagnosis and treatment, in the absence of antiretroviral therapy, is not sufficient to improve the overall TB epidemiology in settings with a high HIV prevalence. People living with HIV/AIDS must receive antiretroviral therapy.
- Document 4.2
  - The main route for transmission of HIV infection is through infected blood. Blood transfusion is the most powerful means of transmission.
  - Adopting the universal precautions (considering any individual as potentially infected and adopting all appropriate policies and guidelines to reduce the risk of HIV infection) is highly recommended.
  - HIV/AIDS can be effectively prevented, and people living with HIV/AIDS can be treated with antiretroviral drugs.

### **3. Lead the plenary discussion and answer questions**

To manage the discussion, you may propose the following:

- Ask participants to describe the characteristics of TB and HIV/AIDS control in their own setting (national or subnational).
- Emphasize the following teaching points and ask participants to comment.
  - TB control benefits from longstanding experience in programme management.
  - TB/HIV control is developing a similar programmatic approach.
  - There are opportunities for collaborative TB/HIV activities.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **4. Summarize the unit**

## Notes for the slides for Unit 4

Document No. 4.1

### ***Priorities, targets and interventions in controlling TB***

#### **Slide 1: Title**

#### **Slide 2: Objectives of the presentation**

The slide is self-explanatory. The objectives of the presentation are reported as presented in the manual for participants.

#### **Slide 3: Strategy for controlling TB: priorities**

The first priority in controlling TB is to diagnose infectious cases to cure them in order to break the chain of transmission. The programme should not insist on expanding case-finding until it can cure all the cases detected. Registering, reporting and analysing data is a priority to measure how good the programme is in diagnosing and treating infectious cases. All the other aspects are relevant as activities supporting the priority ones.

#### **Slide 4: Deaths and infectious cases prevented according to strategy, the United Republic of Tanzania and Viet Nam**

In two different countries, both death and infectious cases prevented by treating sputum smear-positive cases, smear-negative cases or administering isoniazid preventive therapy per 100 000 population are consistent. Treating infectious cases is the most efficient intervention.

#### **Slide 5: TB manager: priorities (1)**

The slide shows the priorities of TB managers. Analysing reports, validating data and reviewing organization and inputs allows gaps to be identified and solutions proposed to solve them.

#### **Slide 6: TB manager: priorities (2)**

Remember which operational indicators are routinely available: case notifications and treatment outcomes, workload and quality of the laboratory network and coverage of health facilities. The manager may be asked to measure the impact of the programme in terms of reduced morbidity, mortality and transmission.

#### **Slide 7: Targets of national TB control programmes**

The targets planned to reduce transmission by 40% are detecting 70% of the estimated sputum smear-positive cases and curing 85% of them. The first target can be estimated, and the second is calculated by performing cohort analysis of treatment results.

#### **Slide 8: TB interventions over time (1)**

The different interventions available are reported on a line indicating the declining incidence of TB. They start with the isolation of infectious cases in sanatoriums in 1857, followed by introduction of drugs, BCG vaccination, screening by mass-miniature X-ray (MMR), DOTS and special interventions applied in low-incidence countries to address outbreaks and risk groups. The bottom of the slide tracks the main determinants of decline in TB (socioeconomic improvement, sanatoriums, drugs and screening).

#### **Slide 9: TB interventions over time (2)**

The same figure shows that problems affecting a national TB control programme (HIV, insufficient funding, etc.) may result in a resurgence of TB incidence.

**Slide 10: Chain of transmission**

The slide presents the interventions available to prevent an index case from infecting a contact and preventing a contact from developing TB and becoming an index case.

**Slides 11–15: Interventions**

The various interventions are presented in a self-explanatory way: diagnosis, treatment, environmental control, preventive chemotherapy and BCG vaccination.

Slide 14: Note that in most documents presenting collaborative TB/HIV activities, chemotherapy is called isoniazid preventive therapy. This is also called treatment of latent TB infection to focus on treatment of the infection more than on prevention.

**Slides 16–17: TB transmission (1 and 2)**

Slide 16 introduces the aims of the TB programme.

Slide 17 raises the question: What are the factors that can influence transmission? Can they be influenced? Can the changes be measured?

**Slide 18: TB transmission (3)**

Slides 18–29 explain, in a simplified manner, how TB is transmitted in various epidemiological settings based on Styblo's model.

Incidence is the result of prevalence times breakdown. The breakdown rate can be influenced by such factors as malnutrition, HIV, BCG immunization and chemoprophylaxis or isoniazid preventive therapy.

**Slide 19: TB transmission (4)**

Prevalence is the result of incidence times duration. The influencing factors are mentioned below.

**Slide 20: TB transmission (5)**

Transmission (and the annual risk of TB infection) is the result of prevalence times contact. The influencing factors are mentioned below.

**Slide 21: TB transmission (6)**

Mortality is the result of incidence times the risk of death. The influencing factors are mentioned below.

**Slide 22: TB transmission model (1)**

In the absence of intervention (imagine an isolated island where no control programme activities are available), one source of infection on average infects 10 people per year (20 people in two years). Of the 20 people infected, with a 10% breakdown rate, 50% will become sputum smear positive. So one source produces one source.

**Slide 23: TB transmission model (2)**

In the absence of intervention, but with HIV (imagine an isolated island where no control programme activities are available but HIV is present), one source of infection on average only infects 10 people (his or her life is shorter). Of the 10 people infected, with a 50% breakdown rate, 40% will become sputum smear positive. So one source produces two sources.

**Slide 24: TB transmission model (3)**

In the absence of interventions but with other influencing factors (imagine an isolated island where no control programme activities are available but such factors as malnutrition, stress and diabetes are present), one source of infection on average infects 10 people per year (20 people in two years). Of the 20 people infected, with a 20% breakdown rate, 50% will become sputum smear positive. So one source produces two sources.

**Slide 25: TB transmission model (4)**

In the presence of interventions (imagine an isolated island where treatment is available), one source of infection on average infects 10 people in one year (the period of infectivity is reduced). Of the 10 people infected, with a 10% breakdown rate, 50% will become sputum smear positive. So one source produces 0.5 sources.

**Slide 26: TB transmission model (5)**

In the presence of interventions (imagine an isolated island with irregular treatment), one source of infection on average infects 10 people per year (30 people in three years as the period of infectivity is increased). Of the 30 people infected, with a 10% breakdown rate, 50% will become sputum smear positive. So one source produces 1.5 sources.

**Slide 27: TB transmission model (6)**

In the presence of interventions (imagine an isolated island where early diagnosis and good treatment are available), one source of infection on average infects 10 people per year (five people in 0.5 years). Of the five people infected, with a 10% breakdown rate, 50% will become sputum smear positive. So one source produces 0.25 sources.

**Slide 28: TB transmission model (7)**

In the presence of interventions (imagine an isolated island where early diagnosis and good treatment are available but with malnutrition, stress and diabetes), one source of infection on average infects 10 people per year (five people in 0.5 years). Of the five people infected, with a 20% breakdown rate, 50% will become sputum smear positive. So one source produces 0.50 sources.

**Slide 29: TB transmission model (8)**

In the presence of interventions (imagine an isolated island where early diagnosis and good treatment are available, plus HIV), one source of infection on average infects 10 people per year (five people in 0.5 years). Of the five people infected, with a 50% breakdown rate, 40% will become sputum smear positive. So one source produces one source.

This schematic modelling explains what should be implemented (early diagnosis plus good treatment) and what should be avoided (irregular or poor treatment and delayed diagnosis) to decrease transmission.

**Slide 1: Title**

**Slide 2: Objectives of the presentation**

The slide is self-explanatory. The objectives of the presentation are reported as presented in the manual for participants.

**Slide 3: Risks of transmission**

The factors determining the risk of HIV transmission are summarized for each route of transmission (sexual intercourse, blood and mother-to-child transmission).

**Slide 4: Exposure category of reported AIDS cases: selected countries: mid-1990s**

HIV, similar to other sexually transmitted infections, is distributed heterogeneously between groups with differing exposure in different countries. This slide illustrates differences in the epidemic in selected countries. For example, injecting drug use has been especially important in Spain, whereas heterosexual transmission predominates in developing countries. Brazil is unusual in reporting bisexuality for a large proportion of its AIDS cases.

**Slide 5: Probability of HIV transmission per contact**

This slide presents the probability of HIV transmission per contact (or infectivity per contact, expressed in a log scale). The highest probability is represented by blood transfusion and the lowest by female-to-male transmission. The bars represent confidence intervals, which are larger when the probability is lower.

**Slide 6: Number of secondary cases generated by each primary case of sexually transmitted infection (basic reproduction rate ( $R_0$ ))**

The basic reproduction rate ( $R_0$ ) derives from multiplying the number of sexual partners, the transmission efficiency and the duration of the infective period.

**Slide 7: Preventing HIV infection**

Methods of prevent sexual transmission are reported.

**Slide 8: Increase in reported condom use with non-regular partners in selected districts in Uganda, 1996–2000**

Condom use can be increased, as demonstrated by the Uganda experience (1997 versus 1999 in four selected districts).

**Slide 9: HIV prevalence and reported consistent condom use among female sex workers, Abidjan, Côte d'Ivoire, 1992–1998**

This slide reports the experience of Côte d'Ivoire. The increased use of condoms correlates with the decreasing prevalence of HIV.

**Slide 10: Incidence of sexually transmitted diseases in Thailand, 1982–2000**

The experience of Thailand: increasing the use of condoms reduces the incidence of all sexually transmitted diseases.

**Slide 11: Preventing HIV infection**

The methods of preventing the transmission of HIV infection through blood and blood products are reported.

**Slide 12: Three essential elements for safe blood supply**

The slide presents these elements. The slide is self-explanatory.

**Slide 13: Minimizing the risk of occupational HIV infection**

The slide is self-explanatory. The importance of the universal precautions is underlined. Universal precautions are explained in slide 14.

**Slide 14: Universal precautions**

They are clearly explained in the slide.

**Slide 15: Sterilization and disinfection**

The slide presents the principles of sterilization and disinfection. Steam under pressure is the preferred option for sterilization. Boiling for more than 20 minutes is the best option for sterilization at sea level. At altitude more time is necessary, as water boils at a temperature lower than 100 °C.

**Slide 16: Strategies for prevention: harm reduction among injecting drug users**

The slide presents the principles of the strategy. Without supportive policy, legislation and advocacy, the principles of the strategy will not be implemented successfully.

**Slide 17: HIV transmission does not occur at random**

Within a social, economic, cultural and epidemiological context, transmission occurs in special places (trading centres, bars, brothels, prisons etc.), involving defined people (younger age groups, migrants and people living with HIV/AIDS), with definite types of behaviour (multiple sex partners, sex work, male-to-male sex and injecting drug use).

**Slide 18: Reducing risk behaviour and vulnerability requires a strategic HIV/AIDS prevention mix**

Solving the problem requires providing condoms, injection equipment, services for sexually transmitted infections in the places identified as having a higher risk of transmission because of the behaviour occurring there, working with people at risk and trying to increase skills and knowledge to modify behaviour. Reducing stigma and creating an enabling environment is also important.

**Slide 19: Preventing HIV infection among infants and young children**

The slide presents the principles of the strategy. The slide is self-explanatory.

**Slides 20–21: Strategies for prevention: mother-to-child transmission**

The slides present the three principles of the strategy: antiretroviral therapy and/or prophylaxis, safer infant delivery and infant feeding. For infant feeding, it is necessary to balance the risk that a seronegative child acquires HIV through breastfeeding versus the risk that he or she dies because of malnutrition or diarrhoeal diseases.

**Slide 22: The offer and uptake of HIV testing are rate-limiting steps for preventing mother-to-child transmission of HIV**

This slide summarizes the experience of the UNICEF-supported demonstration projects implemented in nine African countries, in which classic approaches to testing and counselling were applied in the antenatal clinic setting. Dropout rates were high in the first two steps: the process of counselling and identifying positive women in need of services. Reports from field sites indicate that the reasons services fail to be taken up include limitations in the capacity of antenatal clinics to provide key services and women declining key interventions (such as testing).

Of the overall 137 575 women who sought antenatal services in these projects until the end of 2001, only 62% received pretest counselling and, of those, only 70% accepted HIV testing, losing more than half of the potentially infected women before any interventions could be applied.

The good news is that the dropout rates have been significantly reduced in some centres or countries that have developed approaches for the delivery of testing and counselling better adapted to busy antenatal clinic settings, such as Thailand.

**Slide 23: Khayelitsha: availability of decentralized antiretroviral therapy, advocacy and multidisciplinary support services dramatically increases the demand for testing and counselling**

Expanding access to HIV prevention and treatment is critical, as currently only 10% of those who need voluntary counselling and testing have access to it. Stigma and discrimination continue to prevent people from taking an HIV test. The experience of Khayelitsha is presented: the availability of antiretroviral therapy coupled with advocacy and multidisciplinary support services increased the demand for testing and counselling.

**Slide 24: Underpinning principles of testing: the three C's**

The three C's are confidentiality, counselling and (informed) consent.

**Slide 25: UNAIDS/WHO recommend that the following four types of HIV testing be clearly distinguished**

They are initiated by either the client (voluntary counselling and testing) or provider (routine offer of HIV testing by health care providers, diagnostic HIV testing or mandatory testing).

**Slides 26–31: Client- and provider-initiated HIV testing**

The slides are self-explanatory. The four types of HIV testing mentioned in slide 25 are described. UNAIDS/WHO do not support mandatory testing of individuals on public health grounds, as explained in slide 30. Slide 31 summarizes the recommendations on mandatory testing (for immigration or military purposes).

**Slide 32: HIV testing and counselling in the context of clinical TB care**

The slide shows how relevant the TB services are as an entry point for universal access to antiretroviral therapy and which contribution is expected from them. Units 8, 14 and 15 discuss this topic in detail.

**Slide 33: Testing and counselling and TB services**

The ProTEST initiative suggested that 1) HIV testing and counselling can be expanded and strengthened in the context of TB services and 2) the TB component can be strengthened in the context of HIV detection and management services.

**Slide 34: What is required?**

What is required is presented in detail. The slide is self-explanatory.

**Slide 35: The rapid test**

The slide presents details on the rapid test. The rapid test is a powerful tool that needs to be adequately implemented.

**Slide 36: Algorithm for use of HIV rapid tests in testing and counselling services**

The algorithm is presented. A positive rapid test should be confirmed by means of a second one. The algorithm clearly explains what to do if the results are inconclusive.

**Slide 37: Care of people living with HIV/AIDS**

Providing care requires both specific treatment for the illness and treatment to relieve symptoms. As stated in the *Interim policy on collaborative TB/HIV activities* (see Unit 8), access to health care for people living with HIV/AIDS is a basic human right including the provision of clinical care as part of a continuum of a comprehensive strategy for providing HIV/AIDS care. The care strategy includes clinical management (prophylaxis, early diagnosis, rational treatment and follow-up care of opportunistic

infections), nursing care (including hygiene promotion and nutritional support), palliative care, home care (including education for care providers and patients' relatives and promotion of universal precautions), counselling and social support. A complete set of reference materials is available on this topic. They are presented in slides 38–40.

**Slide 38: IMAI (Integrated Management of Adolescent and Adult Illness) materials**

IMAI basic guidelines offer detailed references for clinical care.

- The module on acute care provides guidance in classifying the illness and providing specific treatment based on signs and symptoms. It includes a section aimed at managing emergency signs (sections on quick check and emergency treatment).
- The module on chronic HIV care with antiretroviral therapy provides useful information on how to manage antiretroviral therapy at the primary health facility level.
- The module on palliative care provides valuable information on symptom management and end-of-life care.
- The module on general principles of good chronic care provides general principles on good chronic care that can be applied, among other diseases, to HIV/AIDS.

**Slide 39: TB/HIV clinical manual**

Provides detailed clinical information on diagnosis and care of both TB and HIV/AIDS.

**Slide 40: Scaling up antiretroviral therapy in resource-limited settings**

The document provides valuable guidelines for scaling up antiretroviral therapy in resource-limited settings based on a public health perspective.

Unit 6 (Document 6.3: Clinical management of HIV/AIDS) gives further details on the care of people living with HIV/AIDS and antiretroviral therapy.



# FACILITATOR GUIDELINES FOR UNIT 5, PART 1: THE DOTS STRATEGY FOR CONTROLLING TB

Procedures
1. Introduce Unit 5, part 1: The DOTS strategy for controlling TB.
2. Give the presentation in Document 5.1.
3. Lead the plenary discussion and answer questions.
4. Summarize the unit.

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

## 1. Introduce Unit 5, part 1: The DOTS strategy for controlling TB

Ask the participants to read the first page of Unit 5, part 1 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 5.1 in the manual for participants.

## 2. Give the presentation in Document 5.1

Give presentation 5.1. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to controlling TB and HIV/AIDS. Examples of questions are the following:

Slide 5: What are the five elements of the DOTS strategy?

Slide 5: What are the differences between DOTS and DOT?

Slide 12: What are the three phases to gradual DOTS implementation?

Important issues to be raised are the following:

- DOTS is the brand name of the WHO-recommended strategy of TB control.
- DOT is part of one of the elements of the strategy.
- The maintenance phase of DOTS is the most difficult to achieve.

## 3. Lead the plenary discussion and answer questions

To manage the discussion, you may propose the following:

- Ask participants to describe the characteristics of the implementation of the DOTS strategy in their own setting (national or subnational).
- Emphasize the following teaching points and ask participants to comment:

- DOTS is a brand name, not an acronym.
- TB/HIV is an integral component of DOTS.
- There are opportunities for TB/HIV collaboration.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

#### **4. Summarize the unit**

## **FACILITATOR GUIDELINES FOR UNIT 5, PART 2: CLINICAL MANAGEMENT OF TB**

<b>Procedures</b>
1. Introduce Unit 5, part 2: Clinical management of TB.
2. Give the presentation in Document 5.2.
3. Introduce the exercise in Document 5.3.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 5, part 2: Clinical management of TB**

Ask the participants to read the first page of Unit 5, part 2 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 5.2 in the manual for participants.

### **2. Give the presentation in Document 5.2**

Give presentation 5.2. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to controlling TB and HIV/AIDS. Examples of questions are the following:

Slide 5: What are the differences between diagnosis and case detection?

Slide 17: What potential do sputum smear examination, culture and radiology have in diagnosing TB?

Important issues to be raised are the following:

- Diagnosis is a clinical activity and case detection a control programme activity.
- Smear examination allows rapid detection of sources to reduce the risk of infection and monitor treatment.
- Culture allows confirmation of TB disease and, where applicable, of treatment monitoring.
- Radiology: helps clinical diagnosis and screening of high-risk groups.

### **3. Introduce the exercise in Document 5.3**

Ask the participants to read Document 5.3 of the manual for participants to familiarize themselves with the methods and purpose of the exercise.

Remind participants to read the assigned pages in the report on Fictitia in Annex 1.

Remind participants to nominate a rapporteur for each group and prepare a short report (in a bullet format using transparencies or, if available, PowerPoint presentations) for the plenary session.

Thirty minutes is allocated to discuss the exercise and 30 minutes to report the group work in the plenary session.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in document 5.3.

You may propose the following:

- Ask participants to describe how clinical management of TB is organized in their own setting (national or subnational).
- Emphasize the following teaching points and ask participants to comment:
  - Bacteriology is the basis of TB diagnosis.
  - TB treatment is standardized.
  - Diagnosing and treating an individual with TB is a public health intervention.
  - Clinical management of TB offers opportunities to implement collaborative TB/HIV activities.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **4. Summarize the unit**

## Notes for the slides for Unit 5

Document No. 5.1

### *The DOTS strategy for controlling TB*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the subunit**

The slide is self-explanatory. The objectives of Unit 5, part 1 are reported as presented in the manual for participants.

#### **Slide 3: History of DOTS**

The history of DOTS is discussed, starting from Styblo's definition of the International Union against Tuberculosis and Lung Diseases model TB control programme in the United Republic of Tanzania in the 1980s. WHO launched DOTS as a brand name in 1995.

#### **Slide 4: DOTS: the definition**

The definition is given in the slide, which is self-explanatory.

#### **Slide 5: DOTS, the five elements**

The DOTS strategy is presented in the slide, which is self-explanatory. DOT and DOTS are two different things. DOTS is the WHO-recommended strategy for controlling TB. DOT (directly observed therapy) is a component of the third element of the strategy. Unfortunately, these two terms are often used incorrectly, also among specialists.

#### **Slide 6: Aspects of DOTS**

The aspects of DOTS (technical, logistical, operational and political) are introduced. They are discussed in detail in the following slides.

#### **Slide 7: Technical**

The main technical aspects of DOTS are presented (case detection and diagnosis, standardized short-course chemotherapy, direct observation during the initial phase of treatment (DOT), recording and reporting of progress and cure). They are further discussed in Unit 5.2.

#### **Slide 8: DOT**

The rationale behind DOT is presented, as described by John Sbarbaro in 1990.

#### **Slide 9: Logistical**

The main technical aspects of DOTS are presented, including drug and diagnostic supply, the development of a quality network of laboratories for sputum microscopy and training and supervision of health workers.

#### **Slide 10: Operational**

The slides underline that implementation of the five core elements of DOTS should be flexible.

#### **Slide 11: Political**

Without political commitment, TB cannot be controlled. The key activities demonstrating government commitment include formulating sound policies and mobilizing adequate resources for controlling TB.

**Slide 12: Three phases to gradual DOTS implementation**

The usual phases are the pilot project phase, the expansion phase and the maintenance phase. The last is probably the most difficult to manage. Discussing this with participants is important.

**Slide 13: A strategy for quality**

The slide compares the difference between DOTS and non-DOTS programmes in terms of case detection, diagnosis, allocating people with TB disease to treatment categories, selecting treatment, follow-up, recording and reporting, cure and result.

**Slide 14: DOTS is more than:**

DOT, only the five components, strictly the five components. Discussing this with participants is important.

**Slide 15: Treatment outcomes by WHO region: DOTS versus non-DOTS**

The outcomes of DOTS (reported by WHO region) are consistently better than those of non-DOTS areas.

**Slide 16: Dynamics of pulmonary TB in Peru**

The success of TB control in Peru is shown from 1980 to 2000. After DOTS was introduced in 1990, case-finding of pulmonary TB first increased and then plateaued and finally started decreasing at 6% per year. In 10 years, the incidence of notified cases declined by about 50%.

**Slide 17: Progress towards the 70/85 targets**

The slide shows that more effort should be made to reach the 70% case-finding targets, while many countries are approaching the 85% success rate target.

**Slides 18–20: WHO-recommended global strategy to stop TB and reach the Millennium Development Goals for 2015**

The slides present the five original components of DOTS plus the additional components that will support reaching the Millennium Development Goals.

**Slide 21: Quality TB care for all: ensure a high standard**

The slide focuses on the quality of TB care as a means of controlling TB.

**Slide 1: Title**

**Slide 2: Objectives of the subunit**

The slide is self-explanatory. The objectives of Unit 5, part 2 are reported as presented in the manual for participants.

**Slide 3: Organization of clinical management: objective**

The objective is the regular intake of the drug regimen until cure.

**Slide 4: Organization of clinical management: factors**

The main factors in organization include determining the patient's access to health services, regular drug supply, duration and periodicity of treatment, DOT and drug presentation.

**Slides 5–6: Diagnosis versus case detection**

The slides (self-explanatory) underline the difference between diagnosis (health care activity directed to people consulting health care services for symptoms and signs) and case detection (control programme activity, mainly aimed at finding sources of infection in the community).

**Slide 7: Case-detection – passive**

The slide defines passive case-finding. This activity is not passive at all, as health services should be alerted to identify people with chronic cough self-reporting because of symptoms.

**Slides 8–12: Case detection – sputum smear, culture and chest radiography**

The different diagnostic means available are discussed in detail.

Slide 8 presents the characteristics of sputum smear examination.

Slide 9 gives additional details on the method. Smear positivity depends on the number of bacilli (infectivity, cavities and advanced disease). Its effectiveness diminishes when TB is rare and detected early; it is lower in active case detection than among self-referred people. Positivity is usually very high in specialized TB health facilities where patients arrive late and with severe TB.

Slide 10 presents the characteristics of culture, and slides 11–12 discuss the characteristics of chest radiology as a diagnostic and monitoring tool.

**Slides 13–15: Case detection**

Slide 13 explains where to identify infectious sources in the community and in high-risk groups.

Slide 14 underlines the scenario expected in outpatient departments.

Slide 15 shows that the best indicator of case detection is the number of people with cough examined for diagnosis at the district level. Unit 9 on recording and reporting discusses the register of people suspected of having TB.

**Slide 16: Case detection: definitions**

The definitions of TB suspected, TB case and definite TB case are presented.

**Slide 17: Case detection: conclusions**

The slide summarizes the conclusions on the diagnostic value of sputum smear, culture and radiology.

### **Slide 18: Standardized treatment regimens**

The regimen recommended for each person is based on his or her diagnostic category. This slide shows the WHO-recommended regimens for each diagnostic category.

Direct observation (DOT) is required for the initial phase of treatment (two months) in sputum smear-positive cases, whenever intermittent regimens are used and always when rifampicin is used. The continuation phase (4–6 months) of isoniazid + ethambutol does not require direct observation. The aim of this policy is to limit as much as possible the development of rifampicin resistance. In the United Republic of Tanzania, for example, where six months of isoniazid + ethambutol is used, very low rates of rifampicin resistance (and therefore of multi-drug resistant TB) have been observed. However, this regimen is associated with a higher treatment failure and relapse rate compared with six months of isoniazid + rifampicin. But it is expected to cure the large majority of people adhering to treatment, allowing rifampicin-based re-treatment regimens to be saved in cases of treatment failure or relapse. Another benefit is that six months of isoniazid + ethambutol can be used concomitantly with antiretroviral therapy.

Whenever treatment is not observed, fixed-dose combination tablets should be used. Fixed-dose combinations reduce prescribing errors, decrease the number of tablets people with TB disease need to swallow and prevents them from selecting which pills to ingest.

The treatment categories are as follows:

Category 1: Sputum smear-positive and –negative cases with extensive parenchymal disease, severe forms of extrapulmonary TB – particularly meningeal, pericardial, disseminated or miliary TB. In TB meningitis, streptomycin should replace ethambutol.

Category 2: Whenever possible, drug susceptibility testing is recommended before prescribing category 2 treatment in failure cases. People with proven multi-drug-resistant TB disease should be treated as category 4 regimens.

Category 3: This regimen is the same as that for category 1, so the distinction is more for setting priorities (DOT and monitoring by sputum smear). However, WHO adds the caveats that, for this category, ethambutol may be omitted during the initial phase for those with non-cavitarian sputum smear-negative TB who are known to be HIV-negative.

In conjunction with Partners in Health and Harvard Medical School, the Peru programme introduced individualized regimens to treat multi-drug-resistant cases. It has shown to be highly effective, reaching cure rates of about 70%. In the Russian Federation, in conjunction with the United States Centers for Disease Control and the University of Alabama among others, standardized regimens are being tested also with notable success.

### **Slides 19–21: Organization of treatment (1–3)**

Slides 19–20: With today's very effective regimens, there is no reason to hospitalize people with TB disease. Inpatient treatment of people with TB disease is justified on various grounds:

- clinical severity (best managed in general hospitals);
- no access to DOT (mainly when the ambulatory system is not yet efficiently organized);
- complications (anaemia or pneumothorax) or comorbidity (HIV or diabetes);
- drug toxicity and initial treatment with second-line drugs in multi-drug-resistant cases.

The duration will depend on the reason for hospitalization.

In general, one bed–year is sufficient for 3–4 patients, and about 20% of the patients require hospitalization at some time during the treatment period. Wards in general hospitals or infectious disease hospitals are more flexible than sanatoriums. TB hospitals in large cities have diversified to pneumonology (cancer, chronic disease), infectious diseases or internal medicine and surgery.

In many affluent countries TB is now a rare disease and treatment is ambulatory. As sanatoriums were built in isolated areas, many could not be used for other purposes and have become monuments to the past.

Most choices are made at the national level, to achieve effective standard regimens that facilitate the purchase and quality assurance of TB drugs, staff training and adherence to treatment.

Slide 21: “Daily” may mean every day, as in hospitalized cases or self-administered second phase with isoniazid + ethambutol, or six times per week (rarely five), excluding Sundays if health facilities are closed. National programmes may decide to give the Sunday dose for self-administration or just skip the day.

The standard presentation of Global Drug Facility drugs comprises 28 doses per month, which should last 28–33 days depending on Sunday procedures.

**Slide 22: Treatment delivery process**

It is clearly described in the slide.



# **FACILITATOR GUIDELINES FOR UNIT 6, PART 1: UNIVERSAL ACCESS TO ANTIRETROVIRAL THERAPY**

<b>Procedures</b>
1. Introduce Unit 6, part 1: Universal access to antiretroviral therapy.
2. Give the presentation in Document 6.1.
3. Lead the plenary discussion and answer questions.
4. Summarize the unit.

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

## **1. Introduce Unit 6, part 1: Universal access to antiretroviral therapy**

Ask the participants to read the first page of Unit 6, part 1 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 6.1 in the manual for participants.

## **2. Give the presentation in Document 6.1**

Give presentation 6.1. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to universal access to antiretroviral therapy. Examples of questions are the following:

Slide 14: What are the five pillars of universal access to antiretroviral therapy?

Slide 19: What are the main technical assistance areas requested by countries within universal access to antiretroviral therapy?

Important issues to be raised are the following:

- “3 by 5” is a strategy to reach a common global target for providing antiretroviral therapy to 3 million people with HIV/AIDS by the end of 2005, with the goal of achieving universal access. Significant results have been already achieved, although the target will not be reached.
- At the time this guide was finalized, WHO was developing the official recommended strategy for controlling HIV/AIDS that will follow the “3 by 5” strategy. It will lead towards universal access to antiretroviral therapy. When WHO officially promotes the new WHO-recommended strategy for controlling HIV/AIDS, the title of the unit and the related

presentation (6.1) should be modified in all documents and the new content incorporated in the training materials.

### **3. Lead the plenary discussion and answer questions**

To manage the discussion, you may propose the following:

- Ask participants to describe the extent to which their countries have adhered to universal access to antiretroviral therapy at the national or subnational levels.
- Emphasize the following teaching points and ask participants to comment:
  - Universal access to antiretroviral therapy is an initiative based on five pillars;
  - The collaboration with the TB programme will enhance its effectiveness.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **4. Summarize the unit**

## **FACILITATOR GUIDELINES FOR UNIT 6, PART 2: CLINICAL MANAGEMENT OF HIV/AIDS**

<b>Procedures</b>
1. Introduce Unit 6, part 2: Clinical management of HIV/AIDS.
2. Give the presentation in Document 6.3.
3. Introduce the exercise in Document 6.4.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 6, part 2: Clinical management of HIV/AIDS**

Ask the participants to read the first page of Unit 6, part 2 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 6.3 in the manual for participants.

### **2. Give the presentation in Document 6.3**

Give presentation 6.3. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to the clinical management of HIV/AIDS. Examples of questions are the following:

Slides 6, 10 and 11: What are the methods for assessing eligibility for antiretroviral therapy?

Slides 7–9: What are the stages of the WHO staging system for HIV infection?

Slide 16: What are the WHO-recommended first and second-line antiretroviral regimens?

Slide 22: What are the peculiarities of antiretroviral therapy among people with TB disease?

Important issues to be raised are the following:

- Antiretroviral therapy eligibility criteria may vary according to the setting.

- Laboratory-confirmed HIV infection (such as by rapid test, confirmed by a second one) is necessary. Clinical assessment based on the WHO staging system is recommended in resource-constrained settings.
- The standard first-line antiretroviral regimen is relatively easy to manage (see also the Malawi experience, Unit 14).

### **3. Introduce the exercise in Document 6.4**

Ask the participants to read the document 6.4 of the manual for participants to familiarize themselves with the methods and purpose of the exercise.

Remind participants to read the assigned pages in the report on Fictitia in Annex 1.

Remind participants to nominate a rapporteur for each group and prepare a short report (in a bullet format using transparencies or, if available, PowerPoint presentations) for the plenary session.

Thirty minutes is allocated to discuss the exercise and 30 minutes to report the group work in the plenary session.

Provide support while participants work.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in Document 6.4.

You may propose the following:

- Ask participants to describe how the clinical management of HIV/AIDS is organized in their own setting (national or subnational).
- Ask participants to describe the clinical and laboratory eligibility criteria for antiretroviral therapy and antiretroviral regimens used in their own settings.
- Emphasize the following teaching points and ask participants to comment:
  - Antiretroviral therapy is the key intervention.
  - Not all the clinical details are relevant for course participants, who are public health staff.
  - The essential information to keep is that relevant for public health implementation.
  - There are opportunities for implementing collaborative TB/HIV activities.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **5. Summarize the unit**

## Notes for the slides for Unit 6

Document No. 6.1

### *Universal access to antiretroviral therapy*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the subunit**

The slide is self-explanatory. The objectives of Unit 6, part 1 are reported as presented in the manual for participants. WHO is developing the official recommended strategy for controlling HIV/AIDS that will follow the “3 by 5” strategy. It will lead towards universal access to antiretroviral therapy. When WHO officially promotes the new WHO-recommended strategy for controlling HIV/AIDS, the title of the unit and the related presentation (6.1) should be modified in all documents and the new content incorporated in the training materials.

#### **Slide 3: Myths about antiretroviral therapy**

The slide is self-explanatory. As we will see, although some of these myths are based on real facts, many changes have already taken place in developing countries. New opportunities are now available.

#### **Slide 4: Why now?**

There is a discrepancy between the need for antiretroviral therapy and what is offered as well as unprecedented global political commitment and funding. The momentum should be utilized. The slide is self-explanatory.

#### **Slide 5: Antiretroviral therapy coverage in low- and middle-income countries, June 2005**

The slide shows the antiretroviral therapy coverage in low- and middle-income countries as of June 2005. The average coverage is only 15%.

#### **Slides 6–10: Estimated percentage of people covered among those needing antiretroviral therapy and coverage by WHO region**

Slides 6–7 present the coverage of antiretroviral therapy at the global level in 2004 and 2005.

The map shows that the coverage of antiretroviral therapy is still low in the vast majority of countries with a high prevalence of HIV infection.

Slide 8 summarizes the number of people receiving antiretroviral therapy in low- and middle income countries from the end of 2002 to mid-2005.

Slide 9 presents the need for antiretroviral therapy by country (focusing on high-burden countries) expressed as the percentage of the global need.

Slide 10 presents the estimated number of people receiving antiretroviral therapy and the percentage coverage in 20 countries with the highest unmet needs as of June 2005.

#### **Slide 11: Mortality and use of antiretroviral therapy**

The slide gives clear evidence of the impact of introducing highly active antiretroviral therapy (expressed as a percentage of person-days receiving highly active antiretroviral therapy) on mortality (expressed as deaths per 100 000 person-years) in industrialized countries.

#### **Slide 12: Widening gap in AIDS treatment**

The slide shows the impact on AIDS deaths in western Europe following the introduction of highly active antiretroviral therapy. The curve of AIDS deaths in Africa is still increasing dramatically.

**Slide 13: Prices (US\$ per year) of a first-line antiretroviral regimen in Uganda, 1998–2001**

The slide clearly indicates the considerable decrease in the cost of the first-line regimen in Uganda following negotiations with the pharmaceutical industry.

**Slides 14–15: Universal access to antiretroviral therapy**

Slide 14 presents the guiding principles of universal access to antiretroviral therapy.

Slide 15 presents the strategic framework for universal access to antiretroviral therapy.

**Slide 16: Accelerating prevention**

The slide (self-explanatory) underlines the need to scale up treatment and prevention of HIV/AIDS.

**Slide 17: Influence of TB lessons**

Many principles guiding the “3 by 5” Initiative are derived from the TB control experience, as presented in the slide. This topic is discussed in detail in Unit 14 (the Malawi experience).

**Slide 18: Treatment scale-up**

The map shows the countries requesting assistance within the Initiative as of March 2004.

**Slide 19: Technical assistance needs identified**

The slide presents the proportion of countries requesting assistance for each field of technical assistance.

**Slide 20: Conclusions**

The slide is self-explanatory. Unit 12 discusses monitoring and evaluation aspects in detail.

**Slide 1: Title**

**Slide 2: Objectives of the subunit**

The slide is self-explanatory. The objectives of the subunit are reported as presented in the manual for participants. Note that the objectives are focused on the treatment guidelines for HIV/AIDS (see References).

**Slide 3: Principles of the revised guidelines**

The slide is self-explanatory.

**Slides 4–5: *Scaling up antiretroviral therapy in resource-limited settings: key elements (1 and 2)***

The slides are self-explanatory. The six key elements are introduced.

1. Antiretroviral therapy eligibility – slides 6–11.
2. First- and second-line regimens – slides 12–18.
3. Importance of fixed-drug combinations and co-blister packs to improve adherence, limit emergence of drug resistance and facilitate logistics – slides 19–21.
4. Treatment monitoring requirements (including the definition of treatment failure) – slides 22–32.
5. Criteria for identifying and managing toxicity – slides 33–42.

**Slides 6–11: Eligibility for antiretroviral therapy**

Slides 6–11 present the criteria guiding eligibility for antiretroviral therapy.

Criteria for assessing eligibility for antiretroviral therapy (slide 6) first require laboratory confirmation of HIV infection. Clinical criteria are available: WHO has developed a staging system that is presented in detail in slides 7–9. Useful criteria also include the CD4 cell count (see slide 10) and the total lymphocyte count (see slide 11). Viral load determination (see slide 28) is not necessary to start treatment.

Slide 7 describes WHO clinical stage 1 and 2, HIV infection and disease in adults and adolescents. The stages are based on simple criteria, including weight loss, signs and symptoms and performances.

Slide 8 describes stage 3, HIV infection and disease.

Slide 9 describes stage 4 (severe disease: AIDS).

Slide 10 describes the recommendations for initiating antiretroviral therapy among adults and adolescents with documented HIV infection, based on the clinical stage and on the CD4 count.

Slide 11 describes the recommendations for initiating antiretroviral therapy among adults and adolescents with documented HIV infection when CD4 count is not available (total lymphocyte count is necessary).

**Slides 12–18: First- and second-line antiretroviral drugs**

Slide 12 is introductory. Slides 13–18 present the definitions of first- and second-line regimens.

Slide 13 presents the criteria used to choose a first-line antiretroviral regimen. The most important criteria are side-effects profile; availability of fixed-drug combinations, which increases predicted adherence; and costs and availability.

Slide 14 shows the main “families” of antiretroviral drugs, according to the mechanism of action against the HIV virus. Note that the drugs active against reverse transcriptase (such as zidovudine, didanosine and stavudine) and viral protease (such as saquinavir,

ritonavir and indinavir) are those available. In contrast, the drugs active against fusion (T20) and viral protease are still undergoing the experimental phase.

Slide 15 presents the recommended antiretroviral drugs and their abbreviations (for example, lamivudine is abbreviated as 3TC and efavirenz as EFZ).

Slide 16 shows which are the WHO-recommended first and second-line regimens. Lopinavir with a ritonavir boost and saquinavir with a ritonavir boost require a cold chain.

Slide 17 presents the problems related to the use of second-line regimens.

Slide 18 summarizes the available first-line antiretroviral regimens with dosages, availability of fixed-drug combinations, preferred use, necessity of laboratory monitoring and cost.

### **Slides 19–21: Fixed-drug combinations to facilitate compliance**

Slides 19–21 present the importance of fixed-drug combinations and co-blister packs to improve adherence, limit emergence of drug resistance and facilitate logistics.

Slide 19 summarizes the advantages of fixed-drug combinations.

Slide 20 presents the available two- and three-drug fixed-drug combinations.

Slide 21 shows the most common fixed-drug combinations and shows that, when fixed-drug combinations are not available, the preparation of blister packs containing efavirenz-based regimens can facilitate adherence.

Slide 22 describes the recommendations for initiating antiretroviral therapy among people with TB disease, in settings where the CD4 count is available and is not available.

### **Slides 23–32: Starting antiretroviral therapy and monitoring treatment**

Slides 23–32 report the details on the recommended laboratory investigations required to monitor safety and efficacy (including the definition of treatment failure).

Slide 23 shows the recommended evaluations to perform at baseline.

Slide 24 shows the recommended evaluations to perform while on therapy according to the first-line regimen.

Slide 25 summarizes which tests should be performed at baseline and on therapy according to the regimen used at the peripheral or district level of the health system.

Slide 26 recommends the tests to implement in laboratories at levels 1, 2 and 3.

Slide 27 shows that the use of appropriate laboratory technology and the introduction of simple investigations is strongly encouraged.

Slide 28 shows the expected impact of antiretroviral therapy on virological, immunological and clinical parameters.

Slide 29 presents the definitions of treatment failure based on clinical evaluation and on CD4 criteria.

Slide 30 explains that treatment failure must be differentiated from the immune reconstitution syndrome. The syndrome is defined in this slide.

Slide 31 shows the correlation between adherence and the proportion of patients with virological failure. This slide demonstrate that virological failure (and selection of resistance strains) can be prevented only by a very high rate of adherence to treatment (>95%).

Slide 32 recalls that mutation of resistant mutants and natural selection are part of Darwinian evolution.

Slide 33 adds further details on mutations producing HIV resistance.

Slide 34 suggests that resistance is a phenomenon related to the use of drugs, to be monitored as performed for TB drugs. Drug resistance is likely to spread, but this is not a reason to limit expanded access to antiretroviral therapy. Surveillance of emergence of drug resistance is recommended, by means of supranational or regional networking systems.

**Slides 35–42: Identifying and managing side-effects**

Slides 35–42 report the criteria to identify and manage toxicity.

Slide 35 summarizes the class-specific adverse effects and slide 36 the drug-specific side-effects.

Slide 37 summarizes the main side-effects for the first-line antiretroviral regimens.

Slides 38–42 summarize how to manage the main side-effects of the main first- and second-line antiretroviral regimens in use.



# **FACILITATOR GUIDELINES FOR UNIT 7: DRUG MANAGEMENT FOR CONTROLLING TB AND HIV/AIDS**

<b>Procedures</b>
1. Introduce Unit 7: Drug management for controlling TB and HIV/AIDS.
2. Give the presentation in Document 7.1.
3. Introduce the exercise in Document 7.2.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

## **1. Introduce Unit 7: Drug management for controlling TB and HIV/AIDS**

Ask the participants to read the first page of Unit 7 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 7.1 in the manual for participants.

## **2. Give the presentation in Document 7.1**

Give presentation 7.1. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to the drug management for TB and HIV/AIDS control. Examples of questions are the following:

Slides 7 and 8: What are main differences between the management of drugs for controlling TB and HIV/AIDS?

Slide 10: What are the features of the quantification of HIV/AIDS drugs?

Important issues to be raised are the following:

- TB drug procurement is standardized.
- Basically only TB drugs and simple reagents for sputum smear microscopy are necessary.
- HIV/AIDS procurement is much less standardized.
- Curative drugs (including antiretroviral drugs, those for opportunistic infections, palliative care, AIDS-related cancer and opioid dependence),

preventive drugs (isoniazid and co-trimoxazole) and more sophisticated diagnostics are required.

### **3. Introduce the exercise in Document 7.2**

Ask the participants to read Document 7.2 of the manual for participants to familiarize themselves with the methods and purpose of the exercise.

Remind participants to nominate a rapporteur for each group and prepare a short report (in a bullet format using transparencies or, if available, PowerPoint presentations) for the plenary session.

Thirty minutes is allocated to discuss the exercise and 30 minutes to report the group work and discuss in the plenary session.

Provide support while participants work.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in document 7.2.

You may propose the following:

- Ask participants to describe how drug management for controlling TB and HIV/AIDS is organized in their own setting (national or subnational).
- Emphasize the following teaching points and ask participants to comment:
  - TB drug management is standardized and experience or expertise exists for it.
  - HIV/AIDS drug management is not standardized yet and experience or expertise for it should be developed.
  - Unit 14 discusses a specific approach to drug procurement used in Malawi.
  - There are opportunities for implementing collaborative TB/HIV activities.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **5. Summarize the unit**

## Notes for the slides for Unit 7

Document No. 7.1

### *Drug management for controlling TB and HIV/AIDS*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 7 are reported as presented in the manual for participants.

#### **Slide 3: Pharmaceutical management cycle**

The pharmaceutical management cycle is presented. Selection, procurement, distribution and use require proper management support to function. The entire cycle is governed by policy, regulations and laws.

#### **Slide 4: Pharmaceutical management**

Pharmaceutical management is defined.

#### **Slide 5: Stakeholders involved in the drug management cycle**

The various stakeholders (private sector, public sector partners and patients) are linked in different ways from the international to the community level.

#### **Slide 6: Standardized treatment regimens and uninterrupted drug supply are basic principles of the DOTS strategy**

The slide recalls the basic principles of the DOTS strategy. Two of them (in red) are related to drug management.

#### **Slide 7: TB drug supply**

The slide lists the characteristics of TB drug supply.

#### **Slide 8: HIV supplies management**

The slide lists the key principles of HIV supplies management.

#### **Slide 9: Selection**

The main issues related to selection are presented. The complexity of procuring antiretroviral drugs is demonstrated by the need to consider antiretroviral therapy, drugs to manage opportunistic infections, palliative care, opioid dependence, as well as preventive drugs (isoniazid and co-trimoxazole), HIV diagnostic kits and CD4 and viral load equipment. The notes underline the main differences between antiretroviral and TB drugs.

#### **Slide 10: Quantification**

The main issues related to quantification are presented. The notes underline how antiretroviral drugs are much more complicated to quantify than TB drugs.

#### **Slide 11: Distribution**

The scheme for distribution is similar. Specific topics to consider are the need for a cold chain and security for antiretroviral drugs and the importance of creating a system of distribution at the national level taking into account the model of collaborative TB/HIV activities selected.

**Slide 12: Use**

Again, the scheme for use is similar. Specific topics to discuss are: the economic burden of user charges for antiretroviral drugs on families; the need for lifetime antiretroviral therapy (continuous motivation and surveillance of side-effects); and the lack of experience with and formulations for antiretroviral therapy for children.

**Slide 13: Tender**

The slide presents the different options (open, restricted and selected) for tender.

**Slides 14–15: TRIPS and the Doha Declaration**

The TRIPS agreement and the Doha Declaration are presented. The slides are self-explanatory.

**Slides 16–19: The WHO AIDS Medicines and Diagnostics Service (AMDS)**

AMDS is presented.

## **FACILITATOR GUIDELINES FOR UNIT 8: THE INTERIM POLICY ON COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 8: The interim policy on collaborative TB/HIV activities.
2. Give the presentation in Document 8.1.
3. Introduce the exercise in Document 8.2.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 8: The interim policy on collaborative TB/HIV activities**

Ask the participants to read the first page of Unit 8 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this Unit are presented in Document 8.1 in the manual for participants.

### **2. Give the presentation in Document 8.1**

Give presentation 8.1. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to the *Interim policy on collaborative TB/HIV activities*. Examples of questions are the following:

Slide 12: What are the goal and objectives of the interim policy?

Slide 13: How many activities does the *Interim policy on collaborative TB/HIV activities* specify and what are they?

Important issues to be raised are the following:

There are 12 activities divided into three main groups (A, B and C).

Activities B and C will never be implemented without the existence of a coordinating body, surveillance, planning and monitoring and evaluation (group A activities).

The *Interim policy on collaborative TB/HIV activities* is the pivotal document towards implementing collaborative TB/HIV activities. It is really able to guide implementation step by step.

### **3. Introduce the exercise in Document 8.2**

Ask the participants to read Document 8.2 of the manual for participants to familiarize themselves with the methods and purpose of the exercise.

Remind participants to nominate a rapporteur for each group and prepare a short report (in a bullet format using transparencies or, if available, PowerPoint presentations) for the plenary session.

Twenty minutes is allocated to discuss the exercise and 30 minutes to report the group work and discuss in the plenary session.

Provide support while participants work.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in Document 8.2.

- Emphasize the following teaching points and ask participants to comment.
  - Countries should plan their activities based on the thresholds described in slide 17.
  - All countries should have surveillance in place.
    - Whenever further activities are to be implemented, a coordinating body for TB/HIV activities should be implemented at all levels.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **5. Summarize the unit**

## Notes for the slides for Unit 8

Document No. 8.1

### *Interim policy on collaborative TB/HIV activities*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 8 are reported as presented in the manual for participants.

#### **Slide 3: Background on AIDS and ProTEST**

The slide summarizes background information on AIDS and the development of the ProTEST initiative.

#### **Slides 4–7: ProTEST**

The slides present the ProTEST initiative, with its objective (slide 4), interventions (slide 5), results (slide 6), and lessons learned (slide 7). The ProTEST initiative provided the rationale for proposing collaborative TB/HIV activities.

#### **Slide 8: Rationale for joint TB/HIV activities**

The slide presents the rationale, showing that TB is not just part of the problem but also part of the solution.

#### **Slide 9: Principles**

The slides presents the principles. It is self-explanatory.

#### **Slide 10: Sequence of TB/HIV policy development**

The interim policy document states what countries should do to develop collaborative TB/HIV activities.

#### **Slide 11: Process for the interim policy**

The document resulted from extensive collaborative work by experts, policy-makers, people living with HIV/AIDS, programme managers and donors.

#### **Slide 12: Goal and objectives**

The slide presents the goal and objectives of the interim policy.

#### **Slide 13: The 12 activities**

The slide presents 12 collaborative TB/HIV activities divided into three groups: A) Establish mechanisms for collaboration (A1–A4); B) Decrease the burden of TB among people living with HIV/AIDS (B1–B3); C) Decrease the burden of HIV among people with TB disease (C1–C5).

#### **Slides 14–16: Collaborative TB/HIV activities**

The three groups of activities (A, B and C) are presented in detail.

#### **Slide 17: Threshold to collaborative TB/HIV activities**

Countries are divided into three categories based on their national or subnational adult HIV prevalence rate and the prevalence of HIV among people with TB disease. For each category, specific priority collaborative TB/HIV activities are recommended.

#### **Slide 18: Targets**

The slide presents targets for different country categories .

**Slides 19–20: TB and HIV activities**

In slide 19 TB and HIV are separate vertical programmes, without connections. Slide 20 shows which links can be established between them, allowing each programme to be an entry point for the other programme's prevention and curative activities.

**Slide 21: Possible HIV/TB structure and referral flows at the district level**

The slide summarizes the possible links between various health services at the district level.

**Slide 22: Keep in mind**

The slide presents conclusions.

## **FACILITATOR GUIDELINES FOR UNIT 9: RECORDING AND REPORTING FOR THE IMPLEMENTATION OF COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 9: Recording and reporting for the implementation of collaborative TB/HIV activities.
2. Give the presentations in Documents 9.1 and 9.2.
3. Lead the plenary discussion and answer questions.
4. Summarize the unit.

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

### **1. Introduce Unit 9: Recording and reporting for the implementation of collaborative TB/HIV activities**

Ask the participants to read the first page of Unit 9 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Documents 9.1 and 9.2 in the manual for participants. Explain also that Document 9.3 (handout) presents TB and HIV/AIDS forms.

### **2. Give the presentation in Documents 9.1 and 9.2**

Give presentations 9.1 and 9.2. The notes for the presentations are at the end of this unit. Refer to the forms presented in Document 9.3 (handout).

To animate the presentation, pose questions related to recording and reporting for controlling TB and HIV/AIDS. Examples of questions are the following:

- Document 9.1:  
Slide 3: What are the determinants and case definitions of TB?  
Slide 4: What forms comprise the core package for TB recording and reporting?
- Document 9.2:  
Slides 6–7: What additional pieces of information should the HIV/AIDS recording and reporting system capture?

Important issues to be raised are the following:

The TB system for recording and reporting is well standardized. The basic core package consists of nine forms called TB 01 to TB 09. Two additional forms aim at monitoring the proportion of people suspected of having TB screened and the proportion of sputum smear-positive cases converted after the initial phase of treatment has been introduced.

TB forms should capture new information on HIV/AIDS, including:

- HIV test offered;
- person counselled and tested;
- HIV test result positive or negative;
- given co-trimoxazole;
- referred for HIV care and support; and
- given antiretroviral therapy during or at the end of TB treatment.

Pre-antiretroviral therapy and antiretroviral therapy registers have been developed from the HIV/AIDS side.

### **3. Lead the plenary discussion and answer questions**

To manage the discussion, you may propose the following:

- Ask participants to explain whether TB forms currently capture HIV/AIDS information in their countries at the national or subnational level and how the HIV/AIDS forms are designed.
- Emphasize the following teaching points and ask participants to comment.
  - TB forms are standardized and easy to use.
  - Standard TB forms to monitor collaborative TB/HIV activities have started to be revised.
  - HIV/AIDS forms are more complicated and difficult to use, as antiretroviral therapy is for life and more information is needed.
- Mention that Unit 14 discusses the simple approach of Malawi to TB/HIV recording and reporting.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **4. Summarize the unit**

## Notes for the slides for Unit 9

Document No. 9.1

### ***Recording and reporting for controlling TB***

#### **Slide 1: Title**

#### **Slide 2: Objectives of the presentation**

The slide is self-explanatory. The objectives of the presentation are reported as presented in the manual for participants.

#### **Slide 3: TB determinants and case definitions**

The WHO-recommended system of case definition is extremely simple. A TB case is defined (left) as extrapulmonary or pulmonary based on the site of disease, as sputum smear positive or negative based on smear microscopy results and severe if some conditions are met (see green box: “severity”). On the right side the case is either a new or a previous case (see blue box: “previous treatment”).

#### **Slides 4–5: Core package for TB recording and reporting**

All the forms discussed are available in the package.

The package includes nine forms (TB 01–TB 09, slide 4). *Management of tuberculosis – training for health facility staff* (Geneva, WHO, 2003) introduces two additional forms: the register of people suspected of having TB and the form to evaluate the sputum smear conversion after the intensive phase of treatment. Slide 5 divides the forms into three groups based on their function (managing the people with TB disease and monitoring the programme at the district and national levels).

#### **Slide 6: Indicators for analysing TB case-finding**

The slide presents them in detail.

#### **Slide 7: Indicators for analysing TB treatment results**

The slide presents them in detail.

#### **Slide 8: Cohort analysis**

The slide presents the principles of cohort analysis.

#### **Slide 9: Results expected in a good TB programme**

They are explained in the slide.

#### **Slides 10–11 TB forms and HIV/AIDS (1 and 2)**

Slide 10 lists the additional information necessary to complete the TB recording and reporting system to allow TB/HIV collaboration. Slide 11 suggests that, more than using confidentiality as a reason not to collaborate, it is better to improve the confidentiality of the TB register (independently from the specific content related or not related to HIV information).

**Slide 1: Title**

**Slide 2: Objectives of the presentation**

The slide is self-explanatory. The objectives of the presentation are reported as presented in the manual for participants.

**Slide 3: Patient tracking data serve multiple needs**

The needs of patient tracking data are essential for direct care, drug supply management and for monitoring and evaluation.

**Slide 4: Contribution of patient tracking to the milestones on universal access to antiretroviral therapy**

The slide presents “3 by 5” milestones 9 and 11. They can be evaluated through the forms presented here.

**Slide 5: TB experience...**

The slides shows which elements of the TB recording and reporting system had been used to develop the HIV/AIDS one.

**Slides 6-8: HIV care (pre-antiretroviral therapy) and antiretroviral therapy registers**

The registers discussed should be available in countries. The links between the pre-antiretroviral therapy and the antiretroviral therapy registers is ensured by five variables. Slide 6 lists the variables collected in the pre-antiretroviral therapy register. Slide 7 summarizes the variables collected in the antiretroviral therapy register, showing those used for follow-up.

**Slide 8: Consistent definitions for why an antiretroviral drug or regimen is changed**

They are listed in the slide (codes 1 to 10).

**Slide 9: Outcomes**

They are listed in the slide (six outcomes).

**Slide 10: Consistent definitions for why antiretroviral therapy is stopped – reason codes**

They are listed in the slide (codes 1–10).

**Slide 11: HIV care registers**

Their function is explained.

**Slide 12: Cohort analysis report**

The slide summarizes the indicators to be calculated (and the frequency of calculations).

**Slide 13: Optional indicators**

They are presented in the slide.

**Slides 14–17: Malawi experience**

Slide 15 describes the system used in Malawi. The master card is used to update the facility register every three months. Every three months, cohort analysis is performed using the register. Slide 16 shows how two types of analysis are performed: survival analysis and cumulative treatment outcomes. Slide 17 shows an example of the Malawi antiretroviral therapy quarterly cohort analysis form. A pill count in the bottle of eight or less is considered equivalent to 95% adherence.

## **FACILITATOR GUIDELINES FOR UNIT 10: SURVEILLANCE OF HIV PREVALENCE AMONG PEOPLE WITH TB DISEASE**

<b>Procedures</b>
1. Introduce Unit 10: Surveillance of HIV prevalence among people with TB disease
2. Give the presentation in Document 10.1.
3. Introduce the exercise in Document 10.2.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 10: Surveillance of HIV prevalence among people with TB disease**

Ask the participants to read the first page of Unit 10 of the manual to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 10.1 in the manual for participants.

### **2. Give the presentation in Document 10.1**

Give presentation 10.1. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to the surveillance of HIV prevalence among people with TB disease. Examples of questions are the following:

Slide 5: What are the main strategies for conducting surveillance of HIV prevalence among people with TB disease?

Slides 7–13: What are advantages and disadvantages of the various methods?

Important issues to be raised are the following:

There are three main methods of conducting surveillance of HIV prevalence among people with TB disease:

- routine HIV testing of people with TB disease;
- sentinel methods; and
- periodic surveys.

They should be adopted according to the category of the country (I, II or III), taking into account advantages and disadvantages.

### **3. Introduce the exercise in Document 10.2**

Ask the participants to read Document 10.2 of the manual for participants to familiarize themselves with the methods and purpose of the exercise.

Remind participants to read the assigned pages in the report from Fictitia in Annex 1 of the manual for participants.

Remind participants to nominate a rapporteur for each group and prepare a short report (in a bullet format using transparencies or, if available, PowerPoint presentations) for the plenary session.

Thirty minutes is allocated to discuss the exercise and 30 minutes to report the group work and discuss in the plenary session.

Provide support while participants work.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in Document 10.2.

Emphasize the following teaching points and ask participants to comment.

- Countries should plan their surveillance activities based on the thresholds described in slide 6.
- All countries should have surveillance in place.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **5. Summarize the unit**

## Notes for the slides for Unit 10

Document No. 10.1

### *Surveillance of HIV prevalence among people with TB disease*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 10 are reported as presented in the manual for participants.

#### **Slide 3: *Guidelines for HIV surveillance among TB patients*, 2nd edition**

The guidelines are presented. In sub-Saharan Africa, the best option is to perform unlinked, anonymous seroprevalence survey of HIV infection among adults with newly diagnosed TB.

#### **Slide 4: Why is surveillance of HIV prevalence among people with TB disease important?**

The reasons why are explained in the (self-explanatory) slide.

#### **Slide 5: Surveillance methods**

The three surveillance methods are explained in the (self-explanatory) slide.

#### **Slide 6: Surveillance methods for use in different HIV and TB prevalence settings**

The recommended surveillance methods are presented by country category (I, II and III).

#### **Slide 7: Methods for measuring HIV prevalence among people with TB disease**

The slide describes periodic (special) surveys, sentinel surveillance and data from routine care.

#### **Slides 8–9: Periodic (special) survey (1 and 2)**

Slides 8–9 give details on description, eligibility, data collection, specimen tested, HIV testing, data management and the advantages and disadvantages of periodic (special) surveys.

#### **Slide 10: Ethical issues in HIV surveillance**

The slide summarizes the most important ethical issues.

#### **Slide 11: Methodological issues**

The slide gives details on the use of sputum samples in HIV surveillance.

#### **Slide 12: Sentinel surveillance**

The slide gives details on the advantages and disadvantages of sentinel surveys.

#### **Slide 13: HIV testing from routine care**

The slide describes the advantages and disadvantages of routine testing.

#### **Slide 14: Data collection form for HIV prevalence surveys or sentinel surveillance among people with TB disease**

The slide presents an example of a data collection form.

#### **Slide 15: Methodological issues**

The slide presents details on direct and indirect costs.

#### **Slide 16: Challenges to TB/HIV surveillance**

They are listed in the slide. The slide is self-explanatory.

#### **Slide 17: Concluding remarks**

They are listed in the slide. The slide is self-explanatory.



## **FACILITATOR GUIDELINES FOR UNIT 11: HUMAN RESOURCE DEVELOPMENT FOR IMPLEMENTING COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 11: Human resource development for implementing collaborative TB/HIV activities.
2. Give the presentation in Document 11.1.
3. Introduce the exercise in Document 11.2.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 11: Human resource development for implementing collaborative TB/HIV activities**

Ask the participants to read the first page of Unit 11 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 11.1 in the manual for participants.

### **2. Give the presentation in Document 11.1**

Give presentation 11.1. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to human resource development for implementing collaborative TB/HIV activities. Examples of questions are the following:

Slide 7: What are the objectives of human resource development?

Slides 14–18: What are the steps of the human resource development plan for implementing collaborative TB/HIV activities?

Important issues to be raised are the following:

- the objectives of human resource development for implementing collaborative TB/HIV activities;
- despite the existing constraints, there are strategies to deal with them; and

- the importance of a structured human resource development plan for implementing collaborative TB/HIV activities.

### **3. Introduce the exercise in Document 11.2**

Ask the participants to read Document 11.2 of the manual for participants to familiarize themselves with the methods and purpose of the exercise.

Remind participants to recall from the report from Fictitia in Annex 1 the situation of human resource development in the country and to read Document 11.3 (handout).

Remind participants to nominate a rapporteur for each group and prepare a short report (in a bullet format using transparencies or, if available, PowerPoint presentations) for the plenary session.

Thirty minutes is allocated to discuss the exercise and 30 minutes to report the group work and discuss in the plenary session.

Provide support while participants work.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in Document 11.2.

Emphasize the following teaching points and ask participants to comment.

- Existing gaps in human resource development need to be addressed in countries.
- A human resource development plan is essential for the overall plan for implementing collaborative TB/HIV activities.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **5. Summarize the unit**

## Notes for the slides for Unit 11

Document No. 11.1

### ***Human resource development for implementing collaborative TB/HIV activities***

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 11 are reported as presented in the manual for participants.

#### **Slide 3: Human resource development – what do we mean?**

Human resource development for collaborative TB/HIV activities is often seen as another name for “training”. The slide gives the comprehensive definition.

#### **Slide 4: The vision for human resource development for collaborative TB/HIV activities**

“If we do not know where we are going we might end up somewhere else without even knowing it.” The slide shows the long-term vision for human resource development. The vision illustrates that human resource development is a long-term activity that cannot be considered complete at any time, as policies and strategies will constantly evolve.

#### **Slides 5–6: Implementation**

This slide illustrates how new and old policies and interventions come together at the implementation level, thus affecting the workload of health staff who are often already overloaded. This is one essential aspect to consider in planning for implementing collaborative TB/HIV activities since it often has considerable implications for workload.

#### **Slide 7: Objectives of the human resource development component of the plan for collaborative TB/HIV activities**

The objectives for human resource development are a direct consequence of the vision as described in slide 4.

#### **Slides 8–11: Constraints in human resource development for collaborative TB/HIV activities**

This series of slides give examples of the constraints in human resource development: constraints related to quality (training and competence) and constraints related to quantity (staffing and motivation).

#### **Slide 12: Performance**

Even training programmes of the best quality that enable participants to be competent at the end of the training does not mean that the person will use this competence as intended: perform correctly. Many factors influence performance, and this slide illustrates a few and how they are linked.

**Slide 13: Key strategies for national TB control programmes and national HIV/AIDS programmes to reach the goal**

This slide is generic and illustrates the strategies to reach the vision and objectives of human resource development as outlined in slides 4 and 7. The strategies apply to all countries regardless of their level of development. It is the specific activities that will differ depending on which interventions for collaborative TB/HIV activities have been chosen in any given country.

**Slides 14–18: Human resource development plan for implementing collaborative TB/HIV activities (1–5)**

This series of slides describes a step-by-step process that should be used to prepare and implement the human resource development plan for implementing collaborative TB/HIV activities. Human resource development activities for collaborative TB/HIV activities are part of the overall human resource development plan for comprehensive TB control and/or HIV/AIDS prevention and care and not a separate plan. Further, any plan should be a living plan that needs to be reassessed and activities modified as implementation is progressing.

**Slide 19: Conclusion**

The concluding slide emphasizes the long-term perspective of human resource development as well as the need for collaboration both within the health ministry as well as with other ministries involved in various aspects of human resource development.

## **FACILITATOR GUIDELINES FOR UNIT 12: MONITORING AND EVALUATING THE IMPLEMENTATION OF COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 12: Monitoring and evaluating the implementation of collaborative TB/HIV activities.
2. Give the presentation in Document 12.1.
3. Introduce the exercise in Document 12.2.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 12: Monitoring and evaluating the implementation of collaborative TB/HIV activities**

Ask the participants to read the first page of Unit 12 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 12.1 in the manual for participants.

### **2. Give the presentation in Document 12.1**

Give presentation 12.1. The notes for the presentation are at the end of this unit.

To animate the presentation, pose questions related to monitoring and evaluating the implementation of collaborative TB/HIV activities. Examples of questions are the following:

Slide 3: What are the main reasons for monitoring and evaluating the implementation of collaborative TB/HIV activities?

Slides 12–13: What are the differences between monitoring and evaluation?

Slide 14: What indicators do you know that can be used for monitoring and evaluating the implementation of collaborative TB/HIV activities?

Important issues to be raised are the following:

Indicators proposed cover the three main groups of activities of the *Interim policy on collaborative TB/HIV activities* (A, B and C) plus an additional group of indicators aimed at evaluating political commitment, establishment of partnerships and capacity to mobilize financial resources.

### **3. Introduce the exercise in Document 12.2**

Ask the participants to read Document 12.2 of the manual for participants to familiarize themselves with the methods and purpose of the exercise.

Remind participants to read the four indicators chosen from *A guide to monitoring and evaluation for collaborative TB/HIV activities* (Geneva, WHO, 2004): one from each section – A to D.

Remind participants to nominate a rapporteur for each group and prepare a short report on the four indicators chosen (in a bullet format using transparencies or, if available, PowerPoint presentations) for the plenary session.

Thirty minutes is allocated to discuss the exercise and 30 minutes to report the group work and discuss in the plenary session.

Provide support while participants work.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in Document 12.2.

Emphasize the following teaching points and ask participants to comment.

- Monitoring and evaluation is a key activity.
- *A guide to monitoring and evaluation for collaborative TB/HIV activities* provides all the information necessary for planning and implementing monitoring and evaluation.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **5. Summarize the unit**

## Notes for the slides for Unit 12

Document No. 12.1

### ***Monitoring and evaluating the implementation of collaborative TB/HIV activities***

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 12 are reported as presented in the manual for participants.

#### **Slides 3–4: Definitions of monitoring and evaluation**

Monitoring and evaluation are discussed in detail in slides 3 (monitoring) and 4 (evaluation). The slides are self-explanatory.

#### **Slide 5: Reasons for monitoring and evaluation**

The slide explains the reasons for performing monitoring and evaluation (self-explanatory).

#### **Slide 6: Key documents**

The slide shows how two key TB/HIV documents are linked: *A guide to monitoring and evaluation for collaborative TB/HIV activities* derives from the *Interim policy on collaborative TB/HIV activities*.

#### **Slide 7: Steps in developing a monitoring and evaluation plan**

The slide is self-explanatory. Each step is discussed in detail.

#### **Slide 8: Tracking progress**

The slide summarizes the cycle of assessment and planning from input to the impact evaluation.

#### **Slide 9: Goals and objectives**

The slide is self-explanatory.

#### **Slide 10: Steps in developing a monitoring and evaluation plan**

The slide presents the second step. After the aims are discussed, focus on the development of a monitoring and evaluation framework (slide 11).

#### **Slide 11: Monitoring and evaluation framework**

The slide is self-explanatory.

#### **Slides 12–14: Steps in developing a monitoring and evaluation plan**

The third step (slide 12) is to define and select relevant indicators. Slide 13, derived from *A guide to monitoring and evaluation for collaborative TB/HIV activities*, summarizes the 12 collaborative activities.

Slide 14 summarizes the indicator categories identified. In addition to the indicators derived from the 12 collaborative TB/HIV activities, an additional group of indicators is aimed at evaluating political commitment, establishment of partnerships and capacity to mobilize financial resources.

#### **Slide 15: TB/HIV indicators for monitoring and evaluation**

Of 20 indicators, 8 are core ones.

#### **Slide 16: Indicator fields**

Properties and characteristics are listed for each indicator.

**Slides 17–27: Indicators A.2.1, B.1.1, B.1.2, B.2.1, C.1.1, C.1.2, C.3.1 and C.5.1**

The slides present the eight core indicators stated in *A guide to monitoring and evaluation for collaborative TB/HIV activities*. Slides 22–27 present the core indicator on antiretroviral therapy in detail.

The indicator is defined, the numerator and denominator are given and the purpose, methods, periodicity, strengths and limitations, importance, responsibility and measurement tools are presented in detail.

**Slides 28–32: Global and WHO specific milestones**

The slides present in detail the global milestones for tracking the scale-up of antiretroviral therapy (input and process, output and outcome and impact) and specific milestones for WHO (level of monitoring and evaluation, milestone description and data collection tool).

## **FACILITATOR GUIDELINES FOR UNIT 13: COSTING AND BUDGETING FOR THE IMPLEMENTATION OF COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 13: Costing and budgeting for the implementation of collaborative TB/HIV activities.
2. Give the presentation in Document 13.1.
3. Introduce the exercise in Documents 13.2 and 13.3.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 13: Costing and budgeting for the implementation of collaborative TB/HIV activities**

Ask the participants to read the first page of Unit 13 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 13.1 in the manual for participants.

### **2. Give the presentation in Document 13.1**

Give presentation 13.1. The notes for the presentation are at the end of this unit.

The presentation is short. It is designed to introduce the exercise. Important issues to be raised are the following:

- Managers usually do not like costing and budgeting.
- A properly prepared budget is essential to complement a plan of activities.
- One of the main reasons proposals to the Global Fund to Fight AIDS, Tuberculosis and Malaria are rejected is an inadequate plan.

### **3. Introduce the exercise in Documents 13.2 and 13.3**

Ask the participants to read Documents 13.2 and 13.3 of the manual for participants and the file for Document 13.2 (Excel) to familiarize themselves with the methods and purpose of the exercise.

Remind participants to nominate a rapporteur for each group and complete the assigned components of the budget (using transparencies or, if available, working directly on the Excel file) for the plenary session.

A total of 120 minutes is allocated to discuss the exercise and 30 minutes to report the group work and discuss in the plenary session.

Provide support while participants work.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, follow the activities of the exercise in Document 13.3.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **5. Summarize the unit**

## Notes for the slides for Unit 13

Document No. 13.1

### ***Costing and budgeting for the implementation of collaborative TB/HIV activities***

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 13 are reported as presented in the manual for participants.

#### **Slide 3: Proposal for the Global Fund to Fight AIDS, Tuberculosis and Malaria (draft)**

The four general objectives of the proposal of the national TB control programme for the Global Fund to Fight AIDS, Tuberculosis and Malaria are presented to give the background information on the exercise (in accordance with the learning objectives of the unit).

#### **Slide 4: Strong points in the TB component of the proposal**

The slide describes the four strong points of the proposal. The presence of collaborative TB/HIV activities is the first one.

#### **Slide 5: Group work**

The slide summarizes the work to be done in each group. The explanation is additional to that included in document 13.2 (introduction to the exercise for Unit 13).

#### **Slides 6–9: Activities for each group**

Each group has a different broad activity in the budget. The budget will be guided by Document 13.2 (Excel file). The file has a pre-prepared draft budget to be verified and completed within groups. It will be discussed in the plenary discussion.

#### **Slides 10–11: Examples of budgets to be completed**

The slides show an example of draft budgets to be completed, as available in the Document 13.2 (Excel file).

#### **Slide 12: Example of Global Fund to Fight AIDS, Tuberculosis and Malaria work plan for collaborative TB/HIV activities**

The slide presents an example of a Global Fund work plan for collaborative TB/HIV activities (Objective 2, to develop collaborative TB/HIV activities). The plan indicates, for each quarter, who is responsible, milestones or indicators and the budget. This plan is prepared using the same template recommended for the plan to be designed by participants.



## **FACILITATOR GUIDELINES FOR UNIT 14: CASE STUDY ON DELIVERING SERVICES FOR TB AND HIV/AIDS – THE EXAMPLE OF MALAWI**

<b>Procedures</b>
1. Introduce Unit 14: Case study on delivering services for TB and HIV/AIDS – the example of Malawi.
2. Give the presentation in Document 14.1.
3. Lead the plenary discussion and answer questions.
4. Summarize the unit.

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

### **1. Introduce Unit 14: Case study on delivering services for TB and HIV/AIDS – the example of Malawi**

Ask the participants to read the first page of Unit 14 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the slides for this unit are presented in Document 14.1 in the manual for participants.

### **2. Give the presentation in Document 14.1**

Give presentation 14.1. The notes for the presentation are at the end of this unit.

To animate the presentation pose questions related to previous topics already discussed on:

- the *Interim policy on collaborative TB/HIV activities* (such as collaboration between TB and HIV/AIDS services); and
- the Malawi experience (such as drug management, recording and reporting);

Important issues to be raised are the following:

- To what extent can the Malawi experience be exported to other settings?
- How does Malawi's policy of making antiretroviral drugs available free of user charges affect the outcomes in Malawi?

### **3. Lead the plenary discussion and answer questions**

To manage the discussion, you may propose the following:

- Ask participants to compare the Malawi experience with the experience of their countries.
- Ask participants to discuss how to ensure that both TB and HIV/AIDS systems are used as an entry point for collaborative TB/HIV activities.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

### **4. Summarize the unit**

## Notes for the slides for Unit 14

Document No. 14.1

### *Case study on delivering services for TB and HIV/AIDS – the example of Malawi*

#### **Slide 1: Title**

#### **Slide 2: Objectives of the unit**

The slide is self-explanatory. The objectives of Unit 14 are reported as presented in the manual for participants.

#### **Slide 3: Can antiretroviral therapy be scaled up?**

The slide summarizes enabling factors and constraints in scaling up antiretroviral therapy delivery. Although new opportunities are materializing, lack of human resources as well as suboptimal health system infrastructure and monitoring capacity are preventing antiretroviral therapy delivery from being rapidly scaled up.

#### **Slide 4: The “medicalized model” in Africa**

The central role of physicians in delivering antiretroviral therapy and the complicated system proposed (complicated regimens, complicated laboratory monitoring and a complicated system of recording and reporting) are barriers to rapid and massive scale-up. The strategy should be simple.

#### **Slide 5: TB control structure is the model**

The model used in controlling TB is simple and standardized and can be managed by non-medical staff. Drugs are free of user charges.

#### **Slide 6: From policy to practice: the case of Malawi**

#### **Slides 7–8: Standardized case-finding for antiretroviral therapy**

In Malawi the model is simple. The criteria for eligibility are: positive HIV test and clinical WHO stage III or IV disease. CD4 count is used only where applicable (slide 7). Within one week, people living with HIV/AIDS undergo clinical staging as well as group and individual counselling (slide 8).

#### **Slide 9: Standardized antiretroviral therapy**

The slide presents the first-line, alternative first-line and second-line regimens used in Malawi.

#### **Slide 10: First-line antiretroviral therapy only for countrywide scale-up in Malawi**

The slide emphasizes the importance of using a simple regimen with a fixed-drug combination. Most people being treated had no problems with it.

#### **Slide 11: Promoting drug adherence**

The use of “guardians”, derived from the TB experience, was adopted in Malawi to promote drug adherence to antiretroviral therapy.

#### **Slide 12: Standardized registration, recording and reporting**

Registration was also kept as simple as possible in Malawi.

#### **Slide 13: Monitoring tools borrowed from the TB model**

The slide lists the monitoring tools derived from the TB model.

**Slide 14: From patient master card to cohort analysis**

The slide was also discussed in Unit 9 (Document 9.2). The master card is used to update the facility register every three months. Cohort analysis is performed every three months using the register.

**Slide 15: Registration details**

Whereas a new code is created every year in the TB programme, in the HIV/AIDS programme registration numbers just continue indefinitely.

**Slide 16: Standardized treatment outcomes**

The slide compares the outcomes used for TB and HIV/AIDS cohort analysis in Malawi. Alive and receiving antiretroviral therapy is equivalent to cured. Interruption of treatment for any reason (except defaulting) is used in the HIV/AIDS system. In Malawi the outcome of failure is not used.

**Slides 17–25: Forms for recording and reporting and principles of cohort analysis**

The patient master card is presented in slide 17. The “ARV Identity Card” is shown in slide 18. The two pages of the “ARV Register Book” are presented in slides 20–21. The form used for quarterly cohort analysis is presented in slide 22. The principles of cohort analysis for HIV/AIDS are summarized in slides 23–25. Slide 25 summarizes, in particular, the cumulative results of people who started antiretroviral therapy.

**Slide 26: Standardized procurement of antiretroviral therapy**

To simplify drug procurement in Malawi, units are classified according to the burden of cases.

**Slide 27: For the individual recipient of antiretroviral therapy**

A starter pack and continuation pack are available.

**Slide 28: Low-burden unit: antiretroviral drug packs for 75 people for 3 months**

The slide presents an example of a low-burden unit.

**Slide 29: Calculating antiretroviral therapy drug needs for the 56 public facilities in Malawi**

The slide shows how the system works nationwide.

**Slide 30: Staff providing services at clinics**

The slide shows comparatively the staff available for TB and HIV/AIDS (antiretroviral therapy delivery).

**Slides 31–33: Should antiretroviral drugs have user charges (1–3)?**

The experience in Malawi strongly advocates for antiretroviral therapy delivery free of user charges.

**Slide 34: Conclusions**

The slide is designed to propose some final conclusions and to stimulate discussion.

## **FACILITATOR GUIDELINES FOR UNIT 15: FIELD VISIT TO A LOCAL HEALTH FACILITY PROVIDING PREVENTIVE, DIAGNOSTIC AND TREATMENT SERVICES FOR TB AND HIV/AIDS**

<b>Procedures</b>
1. Introduce Unit 15: Field visit to a local health facility providing preventive, diagnostic and treatment services for TB and HIV/AIDS.
2. Introduce the site of the visit and the checklist in Document 15.1.
3. Conduct the field visit.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 15: Field visit to a local health facility providing preventive, diagnostic and treatment services for TB and HIV/AIDS**

Ask the participants to read the first page of Unit 15 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

### **2. Introduce the site of the visit**

Give an overview of the site of the visit. Describe the diagnostic and treatment services that will be visited and the organizational details of the visit.

Ideally, if feasible, participants will be divided into two groups of 7–8 individuals. Each group will visit the same units in a different order. The possibility to interview one or two patients, when feasible, is recommended.

The Document 15.1 (checklist) provides the guidelines to plan the field visit.

### **3. Conduct the field visit**

Conduct the field visit as planned. Participants will use Document 15.1 (checklist) to guide their visit. The findings of the visit will stimulate the plenary discussion.

### **4. Lead the plenary discussion and answer questions**

To manage the discussion, you may propose:

- to follow the items proposed by the checklist (Document 15.1);

- to discuss the organization of the services in the health facility visited and design its patient flow chart; and
- to discuss the findings of the visit in comparison with:
  - a model country (Malawi)
  - the participants' own setting.

To conclude, make sure that the participants clearly understand what they should include on this topic in their plan for implementing collaborative TB/HIV activities they have to produce by the end of the course.

See the guidelines for all units of this guide for further suggestions.

## **5. Summarize the unit**

## **FACILITATOR GUIDELINES FOR UNIT 16: INDIVIDUAL FINALIZATION OF PLANS FOR IMPLEMENTING COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 16: Individual finalization of plans for implementing collaborative TB/HIV activities.
2. Allow individual work on plans for implementing collaborative TB/HIV activities.
3. Answer questions and tutor participants finalizing plans for implementing collaborative TB/HIV activities.
4. Collect finalized plans for implementing collaborative TB/HIV activities.
5. Summarize the unit.

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

### **1. Introduce Unit 16: Individual finalization of plans for implementing collaborative TB/HIV activities**

Ask the participants to read the first page of Unit 16 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that the plans for implementing collaborative TB/HIV activities should be finalized by the end of the unit.

Explain to participants that you are available to answer individual questions and to tutor participants in preparing their plan for implementing collaborative TB/HIV activities.

### **2. Allow individual work on plans for implementing collaborative TB/HIV activities**

Explain to participants that they have three hours to finalize their plans.

While participants work, observe the draft plans they are preparing. This will allow you, if necessary, to properly select two participants to present their plans for implementing collaborative TB/HIV activities in the plenary session (see Unit 17).

**3. Answer questions and tutor participants finalizing plans for implementing collaborative TB/HIV activities**

Be available to answer questions and tutor participants finalizing plans for implementing collaborative TB/HIV activities.

See the guidelines for all units of this guide for further suggestions.

**4. Collect finalized plans for implementing collaborative TB/HIV activities**

The course director will collect finalized plans for implementing collaborative TB/HIV activities. If feasible, an electronic format is recommended.

**5. Summarize the unit**

## **FACILITATOR GUIDELINES FOR UNIT 17: DISCUSSION OF PLANS FOR IMPLEMENTING COLLABORATIVE TB/HIV ACTIVITIES**

<b>Procedures</b>
1. Introduce Unit 17: Discussion of plans for implementing collaborative TB/HIV activities.
2. Select two participants to present their plans for implementing collaborative TB/HIV activities.
3. Ask the selected participants to present plans for implementing collaborative TB/HIV activities.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 17: Discussion of plans for implementing collaborative TB/HIV activities**

Ask the participants to read the first page of Unit 17 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Explain that two participants will be selected to present their plans for implementing collaborative TB/HIV activities.

Remind participants that discussing the selected plans will not imply any criticism of the work of participants. On the contrary, it will represent an opportunity to identify the strengths and weaknesses of their own draft plans to be improved later.

### **2. Select two participants to present their plans for implementing collaborative TB/HIV activities**

Based on your knowledge of the participants' skills in preparing the plan and on your previous observations of the draft plans during individual finalization (Unit 16), select two participants to present their plans.

### **3. Ask the selected participants to present plans for implementing collaborative TB/HIV activities**

Ask the selected participants to present their plans using transparencies or, if available, PowerPoint presentation (electronic version of the plan).

Remind the participants that they are allowed to interrupt the presentation to pose questions or to comment on the plan.

#### **4. Lead the plenary discussion and answer questions**

Stimulate discussion on the plan presented.

The plan can be discussed taking into consideration the criteria used for its evaluation (Document 17.1):

- existence of a clear background providing the context for the activities proposed;
- existence of clear goal, objectives and targets;
- inclusion of collaborative TB/HIV activities that correspond to the context described in the background and are based on the interim policy;
- inclusion of indicators for each activity considered;
- inclusion, for each activity of the plan, of the following: responsible person or organization, description of the activity, product of the activity and budget for each quarter; and
- the plan follows a logic and takes into consideration what was presented during the course.

Inform participants that they will receive written comments on their plans within two weeks after the course is completed.

See the guidelines for all units of this guide for further suggestions.

#### **5. Summarize the unit**

## FACILITATOR GUIDELINES FOR UNIT 18: COURSE EVALUATION

<b>Procedures</b>
1. Introduce Unit 18: Course evaluation.
2. Collect the course evaluation form, Document 1.2/18.1.
4. Lead the plenary discussion and answer questions.
5. Summarize the unit.

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

### **1. Introduce Unit 18: Course evaluation**

Ask the participants to read the first page of Unit 18 of the manual for participants to familiarize themselves with the objectives of the unit and the content.

Remind participants that, after the course evaluation form (Document 1.2/18.1) is collected, a discussion aimed at evaluating whether the course objectives have been met will start.

**Ask participants to complete the course evaluation form (Document 1.2/18.1)**

Ask participants to complete the course evaluation form (Document 1.2/18.1) and allow them 10 minutes to do it.

You should have extra copies of the evaluation form with you, in case a participant loses his or her own copy provided within the manual for participants and therefore needs it.

### **2. Collect the course evaluation form, Document 1.2/18.1**

Collect the course evaluation form, Document 1.2/18.1.

### **4. Lead the plenary discussion and answer questions**

Ask participants to synthesize verbally their opinions about the course, focusing on the following questions.

- Have the course learning objectives been achieved?
- What have been the strengths of the course?
- What have been the weaknesses of the course?

- How can it be improved?

Take notes on the participants' comments. They can be useful for improving further versions of the course.

See the guidelines for all units of this guide for further suggestions.

## **5. Summarize the unit**