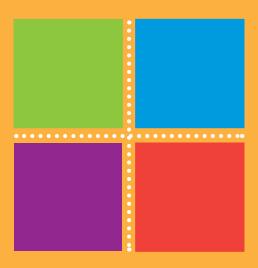
TB Infection Control at the Community Level:

A Training Handbook



by Stella Kirkendale, Carol Dukes Hamilton, Jintana Ngamvithayapong-Yanai, Max Meis, Maria Pia Sanchez, Seraphine Kabanje, Rose Pray, and Paul Jensen

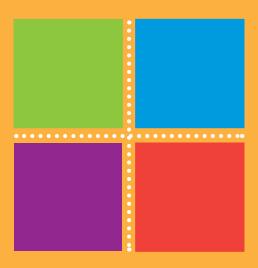






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TB Infection Control at the Community Level: A Training Handbook grew out of the collective expertise of numerous individuals. Together we are dedicated to reducing the transmission of tuberculosis (TB) and HIV by introducing communities and households to simple and effective TB infection control measures. This handbook is derived from the U.S. Agency for International Development (USAID) TB Control Assistance Program (TB CAP), the core project that developed the Simplified Checklist for TB Infection Control (http://www.tbcta.org/Uploaded_files/Zelf/TBInfectionControlSimplifiedChecklist1286177814.pdf).

The project team for the checklist and this handbook includes Max Meis, Royal Dutch Tuberculosis Foundation (KNCV); Jintana Ngamvithayapong-Yanai, Japan Anti-Tuberculosis Association (JATA); Maria Pia Sanchez, Management Sciences for Health (MSH); Paul Jensen, U.S. Centers for Disease Control and Prevention (CDC); Carol Dukes Hamilton, FHI 360; Seraphine Kabanje, FHI 360 Zambia; and Rose Pray, independent consultant and formerly with World Health Organization (WHO). Stella Kirkendale, FHI 360, led both projects, facilitated the pilot training of trainers and served as lead author of the handbook.

The pilot training-of-trainers (TOT) workshops for the project TB Infection Control at Community Level helped us to refine the handbook and was successful because of advance planning by technical and administrative colleagues from FHI 360's Zambia and Kenya offices, coordination assistance by Zambia and Kenya district and provincial Ministry of Health staff, and the active engagement of the participants. We give special thanks to these co-facilitators: Amos Nota (FHI 360 TB CARE I Zambia) and Anthony Ophwette, Lucy Ondicho and Alice Barasa (FHI 360 Kenya). Also, Drs. Seraphine Kabanje (FHI 360 TB CARE I Zambia) and John Adungosi (FHI 360 Kenya) provided invaluable support with the preparations for the pilot TOTs.

Finally, without the enthusiastic engagement, input and critical review of the participants in the pilot TOTs in Ndola and Kitwe, Zambia, and Nakuru, Kenya, this handbook would not have the relevance and authenticity that comes from experience. To all the TB treatment and adherence supporters, focal persons and community health extension workers on the frontlines, we are deeply grateful for your contributions.

Acronyms

ART Antiretroviral therapy

ARVs Antiretrovirals

BCG Bacillus Calmette-Guérin vaccine

CBO Community-based organization

CHW Community health worker

CPT Cotrimoxazol preventive treatment

DOTS Directly observed therapy, short-course

FHI 360 formerly Family Health International

HIV Human immunodeficiency virus

IEC Information, education and communication

IPT Isoniazid preventive therapy

MDR TB Multi-drug-resistant tuberculosis

PMTCT Prevention of mother-to-child transmission

SOP Standard operating procedure
STI Sexually transmitted infection

SWOT Strengths, weaknesses, opportunities and threats

TB Tuberculosis

TB CARE I Continuation of TB CAP, a USAID five-year cooperative agreement

that has been awarded to TBCTA (2010–2015)

TB CAP Tuberculosis Control Assistance Program, a USAID five-year

cooperative agreement that was awarded to TBCTA (2005-2010)

TBCTA Tuberculosis Coalition for Technical Assistance

TOT Training of trainers

USAID United States Agency for International Development

WHO World Health Organization

XDRTB Extensively drug-resistant tuberculosis



I. Background and Overview

The Tuberculosis Coalition for Technical Assistance (TBCTA) is a U.S. Agency for International Development (USAID)-supported coalition of partners that provides technical assistance for TB control worldwide. The coalition implemented the Tuberculosis Control Assistance Program (TB CAP) from 2005 to 2010 as part of its worldwide efforts. TB CARE I follows and builds upon TB CAP. FHI 360 and other TB CAP collaborating partners initially developed a *Simplified Checklist for TB Infection Control* (2009–2010) for use in communities (rather than facilities) by community health workers (CHWs) in sub-Saharan Africa to prevent tuberculosis transmission in high HIV-prevalent settings. The following partners were involved in the TB CAP checklist initiative:

- U.S. Centers for Disease Control and Prevention (CDC)
- World Health Organization (WHO)
- Japan Anti-Tuberculosis Association (JATA)
- Management Sciences for Health (MSH)
- Royal Dutch Tuberculosis Foundation (KNCV)
- FHI 360

Patients with TB, HIV or both face many obstacles when seeking services at traditional clinic and hospital settings, which are often too few and too far from where patients live. Recognizing these barriers, national TB and HIV control programs have created community-based care and treatment programs. These programs allow CHWs to provide TB treatment and treatment support, such as directly observed therapy (DOT), and to educate people on TB and other public health topics. These efforts have led to improved health outcomes through early discovery and treatment of disease.

TB infection control measures at the community level are critically important, particularly in areas of high HIV prevalence. Most TB infection control efforts in high-burden countries to date, however, have been limited to health care facilities and some congregate settings, such as prisons. Resources are limited to help CHWs avoid infection while working with the communities they serve. CHWs also lack adequate educational materials to use in their day-to-day educational activities with patients and the community.

Purpose

We designed this handbook to facilitate understanding and use of the *Simplified Checklist* for TB Infection Control, with a particular emphasis on settings where TB, HIV and TB with HIV are prevalent. Included are practical "how-to" activities that CHWs and TB program implementers can use in planning and organizing educational sessions on TB infection control in their communities. These activities were also designed to raise awareness and promote practical action to help CHWs, including TB treatment and adherence supporters, avoid becoming infected while working with the communities they serve. The checklist serves as a reminder of the things CHWs need to do on home visits or during community meetings.

This handbook is a collection of participatory training modules and resources that involve TB infection control based on general adult learning and group processes. Modules 1 through 5 introduce participants to each other and to some basic adult education concepts. Modules 6 through 9 present technical knowledge about TB and its infectiousness, TB infection control measures, HIV and TB with HIV. Modules 10 through 18 present skills that CHWs can use to improve community awareness of TB, implement community education programs and develop TB infection control plans. Choose the modules you need for your purposes and your local context. Feel free to adapt the materials as well to make them work for you and your situation.

We designed this handbook to be a living document. We encourage you to start using it. Tell us what works and what could be improved. Please share your experiences, IEC materials and tools with us so that we can consider them in revised editions. To submit materials or provide feedback on the handbook, send an email to Stella Kirkendale at skirkendale@fhi360.org and visit the TB CARE I website at http://www.tbcta.org/.

Development

FHI 360 supports national TB control programs, provides education on TB and training in infection control and involves communities in finding and treating active TB cases. The *Simplified Checklist for TB Infection Control* was created for use in households, communities and organizations. We conducted a stakeholder workshop in Zambia to elicit input into the checklist from 40 TB CAP and other partners with organizations supporting implementation of community-level activities in TB and HIV control in 11 sub-Saharan African countries. The final draft was field-tested with representatives of end users at four urban and rural sites in Zambia and Ethiopia and modified based on lessons learned. The final checklist was produced in digital format and distributed widely via CDs and email.

The follow-on TB CARE I project involved developing and implementing a skills-based training of trainers (TOT) curriculum and production of this companion handbook. The training modules were developed by members of the core project team, and TOT workshops were conducted with TB treatment and adherence supporters and TB program managers in Ndola and Kitwe, Zambia, and with community health extension workers and public health officers in Nakuru, Kenya. Feedback from participants in the TOTs informed the final content of the handbook.

Organization

Each section begins with a general introduction to the topic. The training modules may also contain background notes or notes for the facilitator, learning objectives, the approximate time needed to complete each topic, materials needed, steps to conduct the activity and discussion questions or talking points, if appropriate. Handouts for each topic are included in Chapter IV.



"Never do for learners what they can do for themselves and for each other."

— DePorter B, Reardon M, Singer-Nourie S. Quantum teaching. Boston: Allyn-Bacon; 1998.

The training activities in this handbook use a learner-centered, participatory approach to training based on the following adult learning principles:

- Learning is self-directed; learners are the subjects of their own learning.
- A Learning Needs and Resources Assessment (LNRA) should be conducted to inform the training design, if feasible.
- The training fills an immediate need (relevance) and is participatory.
- Learning is experiential and bidirectional. Participants and facilitators learn from one another.
- Facilitators ensure a safe environment for learning.
- Learners learn through praxis: action by reflection or learning by doing.
- Teamwork and small groups promote interaction, discussion and dialogue.
- The instructor teaches toward the cognitive (ideas), affective (feelings) and psychomotor (actions) domains.
- The instructor is accountable to the learners. The learners are accountable to the instructor and to each other.

How Adults Learn¹

Adult learners retain:

- 20 percent of what we hear
- 40 percent of what we see and hear
- 80 percent of what we do

Learners need to do something with new information in order to integrate and retain it effectively. Taking apart an idea or theory (analysis) and putting it back together (synthesis) to apply it (application) to their own situation allows learners to implement and use new learning.1

¹ Knowles M. The adult learner — A neglected species. Houston, TX: Gulf Publishing; 1990.

Training Techniques

The modules in this handbook include the following training techniques:

Presentations are activities conducted by the facilitator to convey information. Presentations can range from straight lecture to some participant involvement through questions and discussion. Presentations depend on the trainer for content more than any other training technique does.

Uses

- Introduces participants to a new subject
- Provides an overview or a synthesis
- Conveys facts or statistics
- Addresses a large group (numbers can vary)

Advantages

- Covers a lot of materials in a short time
- Works with large groups
- Provides context for more practical or hands-on training techniques
- Gives the lecturer or presenter more control than in other training situations

Disadvantages

- Emphasizes one-way communication
- Is not experiential in approach
- Requires that participants play a passive role in learning
- Requires that the lecturer possess effective presentation skills
- Is not appropriate if the training goal is changing behavior or learning skills
- Limits participant retention unless it is followed up with a more practical technique

Case studies are written descriptions of a hypothetical situation or scenario used for analysis and discussion. A case study is a detailed account of a real or hypothetical occurrence (or series of related events involving a problem) that participants might encounter. The case study is analyzed and discussed, and the instructor often asks participants to arrive at a plan of action to solve the problem. Case studies can help group members learn to develop various alternative solutions to a problem and may help develop analytical and problem-solving skills.

Uses

- Synthesizes training material
- Provides an opportunity to discuss common problems in a typical situation
- Provides a safe opportunity for developing problem-solving skills
- Promotes group discussion and group problem solving

Advantages

- Allows participants to relate to the situation
- Involves an element of flexibility
- Avoids personal risks by using hypothetical situations
- Involves participants in an active manner

Disadvantages

- Requires a lot of planning time if the instructor needs to write the case studies
- Requires careful design of discussion questions
- Requires potential cofacilitation so that each group has a facilitator in its discussion

Small group work involves activities in which participants share experiences and ideas or solve a problem together. These activities expose participants to a variety of perspectives and experiences as they work together to accomplish the task.

Uses

- Enables participants to present their ideas in a small group
- Enhances problem-solving skills
- Helps participants learn from each other
- Gives participants a greater sense of responsibility in the learning process
- Promotes teamwork
- Clarifies personal values

Advantages

- Allows participants to develop greater control over their learning
- Encourages participants to be less dependent on the trainer
- Encourages shy or less talkative participants to become involved
- Allows for reinforcement and clarification of the lesson through discussion
- Builds group cohesion
- Elicits information from participants

Disadvantages

- Takes time to move people into groups
- Compromises quality control if a trained facilitator is not in each small group

Role play occurs when several individuals or a small group of participants act out a situation in front of the group. The scenario of the role play relates to the training topic and must have a skill-based objective. There is no script; however, the situation is described in as much detail as appropriate. The participants make up their parts as the situation unfolds. The role play is then discussed in relation to the situation or problem under consideration.

Uses

- Helps to change people's attitudes
- Enables people to see the consequences of their actions
- Provides examples of possible reactions or behaviors
- Provides a safe environment for exploring problems that participants may feel uncomfortable discussing
- Enables participants to explore alternative approaches to various situations
- Explores possible solutions to emotion-laden problems

Advantages

- Provides an opportunity for stimulating new ideas while having fun
- Engages the group's attention
- Simulates an experience
- Provides a dramatic way of presenting a problem and stimulating a discussion
- Allows participants to think and act as another might

Disadvantages

Requires that participants feel comfortable being in front of a group (some participants may feel self-conscious or shy or may fear looking ridiculous)

The training modules in this handbook also incorporate warm-ups, safe feedback, synthesis exercises and evaluation tasks into the learning design.

The Facilitator's Role

Setting the Learning Climate

- Familiarize yourself with all materials and activities before each training session so that you are comfortable with the content and process.
- Arrange the space and materials in a manner that is conducive to learning (such as rounds or U-shapes with the option of moving tables).
- Start on time, but be flexible within established timeframes.
- Create an atmosphere of safety and confidence among the participants.
- Anticipate questions.
- Prepare responses and examples to help move the discussion forward.

Nonverbal Communication

- Maintain good eye contact.
- React to what people say by nodding, smiling or other actions to show that you're listening.
- Be aware of participants' body language. Sense the group's mood and adjust as necessary.
- Place visuals and yourself where they and you can be seen.
- Move around the room.

Verbal Communication

- Ask open-ended questions that encourage responses.
- Encourage participants to participate and ask questions.
- Speak clearly, simply and loudly; avoid jargon and slang.
- Provide immediate feedback.
- Ask other participants if they agree with a statement someone makes.
- Let participants answer each other's questions.
- Be sure that participants talk more than you do.
- Encourage humor.
- Summarize the main points after each session.

Presenting the Objectives

Bridge one topic to the next.

Training Checklist for Facilitators

Completing the preliminary tasks on this checklist for facilitators will ensure that the workshop proceeds as planned.

✓	Activities	Notes
	Confirm training dates.	
	Confirm training venue.	
	Confirm training participants.	
	Arrange accommodations and transportation for participants (if applicable).	
	Confirm other facilitators for the training and the topics that they will cover.	
	Arrange lunch and tea breaks.	
	Ensure needed materials are on hand.	
	Confirm that an LCD projector is available during training (if applicable).	
	Confirm flip chart boards.	
	Photocopy all handouts and put them in a folder or binder.	
	Get prizes and toys for games (such as candy and pipe cleaners).	
	Print certificates of training completion and certificates of appreciation.	



III. Training Modules

Module 1. Getting To Know You

Objectives	 To set the foundations for working as a group for this training To let participants and facilitators introduce themselves To begin building an atmosphere where everyone's experiences and voices are valued
Time	30 minutes
Materials	 Name tags Attendance sheet First-day TOT folders (a folder for each participant that includes a copy of the TOT training schedule (Handout 1), blank TB Quiz for use as a pre-test (Handout 3) and a Training of Trainers Evaluation form (Handout 11) Flip chart Markers
Steps	 Prior to the official welcome, pass out name tags. Ask everyone to write their names on the tags. Welcome everyone to the training and introduce yourself. Go around the room and ask people to say their names and where they are from. Ask facilitators and other host staff to say their names and where they are from. Ask the group to brainstorm a list: What would we like to know about the people here? Write this question on the flip chart. Ask participants to name things they would like to know about people in the room. Write down the responses on the flip chart. Provide some suggestions as needed: Family Hobbies and special interests Likes and dislikes

Steps continued

- **8.** (Time permitting) When the brainstorming session is over, ask participants to find someone they do not know in the room. Make sure everyone has a partner. Have person A in each pair interview person B (they may take notes if they want). After a few minutes, switch around and have person B interview person A.
- **9.** Call everyone back to the whole group. Ask each person to briefly introduce his or her partner to the whole group using the points on the flip chart. Limit introductions to a minute per person.

Discussion

Optional questions to ask if time allows

- Did anyone find it easier to introduce someone else rather than oneself?
- How did you go about trying to remember the details?
- Did open-ended questions encourage people to tell more about themselves?
- Were there any examples of misunderstandings that were clarified by using questions to check?

Note to Facilitator:

Introduction exercises are important to the start of the training. First, they allow the group to get to know each other. Some of the participants may have known each other for a long time. Some may have been recently hired for the project. And others may not know each other at all. The facilitator can acknowledge this when introducing the exercise. Second, an introduction exercise helps the facilitators learn about the participants and the participants learn about the facilitators. This exercise is especially helpful because it encourages participants to consider what they would like to know about each other. Third, some participants may initially feel shy speaking in front of a group or people they do not know well. Introductions can start everyone off on common ground. This exercise is set up in a way that encourages everyone to speak.²

² Hope A, Timmel S. Training for transformation: Book 2. Zimbabwe: Mambo Press; 1984.



Module 2. Overview of Training of Trainers (TOT)

Objectives	 To introduce participants to the objectives of the TOT training activity To go over the training schedule and folder and to discuss logistics
Time	5 minutes
Materials	 TOT learning objectives TOT training schedule (Handout 1) First-day TOT folder
Steps	 Go over the TOT learning objectives, what participants will learn in this TOT and what they will do with the skills learned. Go over the TOT training schedule (Handout 1). Talk about logistics: Start and end times Tea break and lunch times Bathroom locations Take questions.



Module 3. Hopes and Fears

Objectives To give each participant a chance to voice their expectations and concerns about the workshop and TB infection control To give the facilitator a chance to manage participants' expectations by reminding them of the workshop's focus **Time** 15 to 30 minutes (depending on number of participants) **Materials** Flip chart Markers SNOW cards (multicolored "sticky notes on the wall") **Steps** 1. Explain to the group that it's always a good idea for facilitators to find out what a group expects and is concerned about, and to reflect on the expectations and concerns again at the end of the workshop. 2. Create a Hopes and Fears T-chart on a flip chart sheet (see Handout 2). Tape the list to the wall so that it can be seen by all throughout the training. **3.** Pass out multicolored sticky notes to each participant and ask each person to write hopes on one color of note and fears on a different color. If the group is larger than 20 people, limit this exercise to one hope and one fear per person. **4.** Ask participants to stick their notes on the Hopes and Fears T-chart. The facilitator(s) may model by adding their own hopes and fears. **5.** Ask for one volunteer to read the hopes and another volunteer to read the fears. **Feedback and Discussion** 1. Once everyone has stated a hope and a fear, you should make some comments. If any hopes are beyond the scope of the workshop, you could explain this now. You could also try to reassure people about their fears.

2. Ask everyone to remember his own hope(s) and fear(s) so the participants can review all their

hopes and fears together at the end of the workshop.



Module 4. Developing Group Ground Rules

Objectives	 To set ground rules that create a safe and comfortable environment for the training To create a positive learning climate
Time	10 to 20 minutes (depending on whether Step 3 is included)
Materials	■ Flip chart ■ Markers
Steps	 Explain some basics to the group: This is their time together. To make the best use of this time, it is important for everyone to agree to some ground rules (agreements). Suggest topics that they may like to include, such as starting and ending on time, respect for other people's views, being nonjudgmental and giving everyone a chance to speak. Ask participants to suggest additional ground rules for the group. Write each ground rule on the flip chart as participants talk. (Optional) If time permits, place a flip chart in the middle of the group and ask participants who suggest additional ground rules to come into the circle and draw a symbol of their choice to represent that rule. For example, punctuality could be represented by the sun or a clock; politeness could be represented by a smiling face or an ear to indicate listening. Tape the list to the wall so that it can be seen by all throughout the training. (Tape the drawing to the wall as well if Step 3 occurs.) Tell the group that the ground rules will be used throughout the training and that the group can add or change ground rules as they wish throughout the workshop. Leave the ground rules list (and drawing) on the wall throughout the workshop. Add to and change the list (and drawing) as needed.

Note to Facilitator:

Safety is vital to a positive learning climate. Some participants may enter the training with little experience or training in the areas of TB, HIV or TB and HIV co-infection (TB/HIV). It is important that these participants feel safe so that they can take risks in learning and contributing their experiences.

Ground rules help to create a safe environment and to ensure that tasks get done efficiently. Here are some examples of ground rules:

- Start on time.
- Allow each person time to talk.
- Don't interrupt.
- Keep on the topic.
- Laugh a lot.
- No comment is stupid.
- Respect privacy and confidential information shared with the group.
- Get in touch with another participant or facilitator if you will be late or miss a day.

While many ground rules exist from other trainings, it is important that the group develop what is important for them to feel safe in *this* group. Before ground rules are created, the group should have a sense of the training program's objectives and activities.

It is important that the ground rules be clearly written and visibly posted throughout the workshop so that participants can see them.³

³ Vella J. Learning to listen, learning to teach. San Francisco: Jossey-Bass; 1989.



Module 5. Principles of Adult Learning

Objectives	To discuss how adults learnTo examine key adult learning principles
Time	One hour
Materials	 SNOW cards (sticky notes on the wall) Flip chart Markers Handouts: Eight Ways of Knowing (Handout 4), Learning Style Bingo (Handout 5), Learning Styles (Handout 6)
Steps	 Break the group into small groups and provide the following instructions: Describe a good learning experience you have had as an adult. Name two factors that made the experience so good. Write the factors on SNOW cards with dark markers. Ask participants to listen to a brief presentation on how adults learn based on the work of M. Knowles. (See "How Adults Learn.") Ask each small group to choose one of the six factors named by J. Vella to work on: respect, safety, immediacy, relevance, inclusion or engagement.⁴ Ask each small group to draw on the flip chart a Sunshine Wheel (a circle with six spokes) and write the factor they chose in the center. Ask each pair to respond to this question: What is it that tells you or shows you that your factor is present in a training event?
Discussion	Each group posts their Sunshine Wheels in turn and shares them with the rest of the group.

 $^{^{\}rm 4}~$ Vella J. Learning to listen, learning to teach. San Francisco: Jossey-Bass; 1989.



Module 6. TB — The Basics

■ What is TB?

Objectives	 To identify what participants know and don't know about TB To introduce the Simplified Checklist for TB Infection Control (referred to hereafter as the Simplified Checklist) To understand the basis for Checklist 1, the household checklist
Time	One hour
Materials	 Flip chart Markers Tape TB Quiz (Handout 3) Cover Your Cough (Handout 7) Simplified Checklist (pages 5–6, Checklist 1, questions 1–4)
Steps	 Introduce the next part of the workshop as the technical sessions. Distribute the TB Quiz (Handout 3) to participants and ask them to answer the questions by marking an "x" in either the "True" or "False" column. They do not need to write their names on the quiz. Let them know that all the questions will be addressed during the course of the workshop. Collect the quizzes and compile the scores, so that you have a baseline assessment of the participants' knowledge about TB and HIV. Put up six flip chart sheets on different walls of the room. Write a question at the top of each sheet:

■ What is the difference between TB infection and active TB disease?

What are the signs and symptoms of TB?What do we know about the treatment for TB?How can TB treatment lead to drug resistance?

■ What are the risk factors for progressing from TB infection to TB disease?

Steps continued

- **3.** Ask the participants to walk around in pairs and write the following on each sheet:
 - What they know about the topic
 - Any concerns and fears
 - Any myths or misconceptions about the topic that they are aware of
- **4.** Review each sheet with the entire group and respond to questions, concerns and misinformation.
- **5.** Introduce the *Simplified Checklist* by referring participants to page 4, which spells out the following for each type of checklist (household, community and organizations):
 - Why do we need this checklist?
 - Who will use this checklist?
 - When to use this checklist?
 - How to use this checklist?
- **6.** Explain that we will discuss components of the checklist within the framework of the TOT modules.

Discussion

Key talking points

- TB is an airborne disease transmitted by the bacteria *Mycobacterium tuberculosis* (through coughing and sneezing) that primarily manifests itself in the lungs. The bacteria can also affect other parts of the body.
- Infection versus disease: One third of the global population has been exposed to *M. tuberculosis*. A person is infected when TB germs are present in the human body in a dormant or latent stage. The human immune system blocks infection at this stage, and the individual has no signs and symptoms of the disease. Chest X-rays are normal, and sputum smear and cultures are negative. The individual is not infectious. When TB disease develops, the situation changes.
 - Chronic cough (a cough for more than two to three weeks) is an important symptom associated with TB disease and not with TB infection (where no signs and symptoms occur at all). In TB disease, TB bacteria are actively multiplying and can often be found in the sputum that is coughed up. Looking for TB bacteria using a microscope is a common way to diagnose TB of the lungs. However, conditions affecting the immune system (such as malnutrition, HIV and AIDS) can cause false-negative results.
- Discuss the main risk factors for transmitting TB from one person to another:
 - Patient factors: Infectiousness (TB bacteria are being coughed into the air), treatment (time since start of correct treatment and adherence), understanding of TB, cough etiquette and adherence to TB infection control practices.

Discussion continued

- Recipient factors: Closeness, duration and frequency of exposure; risk of TB infection; adherence to TB infection control practices; susceptibility (based on age, immune status, general health).
- Institutional factors: Exposure in small, enclosed spaces, lack of adequate ventilation in the household, members of the same household sharing the same room or bedroom. (A person with TB who is coughing in a small room with no windows is more likely to spread bacteria to others than the same person sitting outdoors.
- **Bacterial factors:** Patients with MDR TB may infect more people due to their prolonged period of infectiousness. Also, previously treated cases that resulted in treatment failure, default or relapse have increased levels of MDR TB.
- Risk factors for progressing from TB infection to TB disease revolve around lowered immunity that comes with HIV, malnutrition, diabetes, silicosis and other immunesuppressing conditions.

Common signs and symptoms

- Persistent cough (usually for more than 2 weeks. A cough of any duration should be checked for TB when a person has tested positive for HIV.)
- Unexplained weight loss or loss of appetite
- Fever
- Night sweats

Treatment

- For drug-sensitive TB, treatment lasts six to eight months: a two- to three-month **intensive phase** followed by a four- to five-month **continuation phase**).
- DOTS (directly observed therapy, short-course) is the recommended strategy for treating TB. Refer to questions 1-4 of the household checklist (Checklist 1 in the Simplified Checklist).
- **Reduction in infectiousness:** As soon as a person with TB begins taking proper TB medicines, their infectiousness (ability to pass TB to others through coughing) decreases with every passing day.
- **Side effects:** Sometimes people stop taking the TB medications because they have side effects from the medication. Many side effects, such as nausea, can be managed with simple measures like taking the medicine with food. Occasionally side effects signal more serious problems, such as liver troubles.

Discussion continued

- Clients are often reluctant to tell a nurse or treatment supporter if they are having trouble with the medications. They may stop taking the medicine because of the side effect but never tell anyone. They may be having trouble finding the right time to take the medicines if they are working. Often simple solutions can be found.
- It is important to ask about side effects and to ask in a plain, nonjudgmental way about whether the client is taking the medicines.
- MDR and XDR TB: The duration and regimen varies by country and may last from 18 months to two years or six months of intensive, daily injections. If a person stops taking the medicines (defaulting), or takes them some days but not others (poor adherence), this is the perfect recipe for allowing the TB bacteria to start becoming resistant to the drugs. If that happens, the person will start to become infectious again and will become sick again. (The next training module provides more information.) Persons can also be infected with drug-resistant strains of TB and can get TB from nonadherence to medicines. Nonadherence to MDR TB treatment can lead to XDR TB.
- If participants come up blank when asked to list common beliefs and misconceptions about TB, the facilitator can mention some examples:
 - The belief that sharing utensils spreads TB is false.
 - The belief that surgical masks or any face mask can protect CHWs from TB transmission is false.
 - The belief that washing hands regularly will prevent TB transmission is false.
 - The belief that sputum fallen to the ground is as infectious as sputum droplets in the air (which can remain suspended for many hours) is false.



Module 7. TB Infectiousness and Infection Control

Objectives	 To understand TB infectiousness and the risk of transmitting TB To understand the three levels of infection control measures To apply the appropriate TB infection control measures outlined in the Simplified Checklist to hypothetical scenarios
Time	Three hours
Materials	Flip chartMarkersSOP 201: TB Infection Control (Handout 8)
Steps	 Introduce TB infectiousness. Review the three levels of TB infection control and factors associated with infectiousness and noninfectiousness. Review the procedures for the levels of control from SOP 201. Discuss the WHO policy with regard to MDR TB. Conduct break-out sessions to discuss case studies and apply the checklist to each hypothetical scenario. Lead a discussion about the hypothetical scenarios.

Overview

TB infection control measures are commonly described as consisting of three levels: administrative (managerial) controls, environmental controls and personal protective equipment (respiratory protection). Of these levels, administrative controls are the first and most important.

Administrative control measures serve as the first line of defense in reducing exposure to TB. Administrative controls should be spelled out in a TB infection control plan that includes standard operating procedures (SOPs) with the steps that should be taken in a given home or community setting.

These key concepts are the basis for administrative controls:

- The importance of cough hygiene. CHWs should separate coughers (those who have had a cough for more than two weeks) and infectious TB patients from others, and recommend prompt anti-TB treatment if indicated.
- Contact investigations of close contacts. CHWs should be able to assess symptoms of household and community members and refer potentially infectious TB patients promptly to the clinic for screening.
- **Education.** CHWs should educate TB patients and members of households and communities about TB basics.
- **Treatment regimen.** CHWs should educate TB patients about adhering to the full treatment regimen and testing for HIV and provide support.
- **HIV testing.** CHWs should encourage all members of a TB patient's household to get tested for HIV.
- Safe sputum collection control measures.
- **Protection from infection.** Policies should be implemented to protect CHWs from TB acquisition, including access to TB screening and HIV testing. If testing reveals a CHW is HIV positive, access should be provided to antiretroviral therapy (ART), isoniazid preventive therapy (IPT) and job reassignment.

Factors associated with infectiousness

- Cough or cough-inducing procedure
- Smear positivity
- TB of the lungs or pharynx
- Cavity in the lung
- Patient not covering mouth when coughing
- Not receiving adequate treatment

Factors associated with noninfectiousness

- No cough or cough-inducing procedure
- Smear negativity
- Most extrapulmonary TB
- No cavity in the lung
- Patient covering mouth when coughing
- Receiving adequate treatment for more than 2 weeks

MDR TB (WHO policy): Reduction of TB transmission is necessary, especially in households with a patient who has MDR TB, because other household members are at high risk of becoming infected and consequently developing TB. Whether a patient is treated as an outpatient or admitted to a health care facility appears to have little impact on household transmission, provided the patient is treated effectively. Patients with MDR TB usually convert later than those with drug-susceptible TB. This may prolong the risk of transmission in the household, especially if patients are treated at home before they convert their sputum to negative. MDR TB increases the risk of morbidity and mortality, particularly in people living with HIV. Additional infection control measures should, therefore, be implemented for the management of MDR TB patients at home, such as environmental controls and respiratory protection measures.

Environmental control measures serve as the second line of defense in TB infection control and include methods to ensure adequate ventilation by maximizing natural ventilation (opening doors and windows), using mechanical ventilation (controlling the direction of airflow through use of fans) or both. Other environmental control measures require resources and technology that are not appropriate in household settings and hence are beyond the scope of this handbook and the *Simplified Checklist*.

Respiratory protection measures (personal protective equipment) represent the third line of defense in TB infection control. Widespread and consistent use of respirators and surgical masks is impractical in many household and community settings due to resource constraints and the risk of increasing stigma. Yet it is important that CHWs understand the difference in protection levels between using a surgical mask (which is inadequate protection for a CHW but prevents the spread of infectious aerosols if worn by an infectious person) and using a respirator that must be fit-tested to prevent leakage. CHWs should be provided with respirators when they visit MDR TB patients at home.

Note: The facilitator should emphasize the following points to participants:

Adopt appropriate actions for the differing audiences and identify those actions that offer the greatest influence in improving household compliance with TB infection control practices. Start with the easier actions first and then add others.

Group Practice

Ask participants to map out each of the following actions with the appropriate steps in the *Simplified Checklist*:

- **1.** Engage community leaders and representatives as champions for TB prevention activities, especially in areas with a high burden of TB and MDR or XDR TB.
- **2.** Create community awareness of the early signs and symptoms of TB, prompt treatment until cured and risk reduction strategies for the home (such as opening windows, sleeping away from the patient and using IPT for children and if family members are HIV positive).
- **3.** Minimize stigma related to TB infection control measures such as the wearing of face masks. Be the role model for good TB infection control.
- **4.** Develop and display posters and other IEC materials that feature natural ventilation and cough hygiene.
- **5.** Train CHWs and TB treatment and adherence supporters on TB infection control and how to conduct home visits.
- **6.** Educate household members on TB infection control measures. Emphasize TB signs and symptoms, adherence to treatment and cough etiquette.
- **7.** Conduct contact investigations of all household members and other close contacts who may have been exposed to the patient.
- **8.** Offer HIV testing and counseling to all household members.
- **9.** Offer preventive treatment if available. Pay special attention to children and household members who are HIV positive.
- **10.** Whenever possible, wear respirators while attending to MDR TB patients at home.
- **11.** Encourage household members and the person(s) with TB disease to participate in a facilitated support group if available.

Scenarios

Ask participants to consider each of the following scenarios and plan control actions.

Scenario 1

You are a CHW going to visit a newly referred TB patient. The patient is a 28-year-old man who lives with his wife and three children in a small one-room house with two windows and a door. The windows are closed. The wife invites you in and offers you tea. The patient and his wife appear quite thin. The patient is coughing but his wife is not. The children are 2, 3 and 6 years old. They look healthy and are playing indoors.

Key issues

- Cough hygiene
- Patient's knowledge of TB and HIV
- TB and HIV status of the wife
- Vulnerability of the children
- Ventilation issues for the CHW's home visit (advice to open the windows)
- Standard interventions, such as health education
- Contact investigation on the children

Scenario 2

You are a CHW attending church on Sunday and notice that your MDR TB patient is sitting in a pew near the front of the church. You know that he is still infectious and had to take public transportation to get to church.

Key issues

- Patient confidentiality
- Relative risk of transmission in church and public transportation
- Patient counseling
- Social and spiritual needs of the patient
- Ventilation in church
- IEC materials
- Adherence to treatment

Scenario 3

You are a CHW supervisor based at the local health care facility. You are concerned about a CHW who has worked for you for many years and is excellent with some of the most challenging patients in the community. She has appeared thin and pale over the last few months and seems to be losing weight.

Key issues

- HIV and TB status of CHW
- Counseling and health education
- Employee health policies and practices, such as access to health service (staff clinic model), confidentiality, workman's compensation scheme and occupational safety
- CHW surveillance
- Stigma and avoidance of TB, HIV screening or both
- Fear of losing her job or being relocated

Discussion

Base the set of measures on risk level. Give the highest priority to interventions with the most impact and lowest cost.

- **Low- and medium-risk settings:** administrative controls and selected environmental controls
- High-risk settings: administrative controls, enhanced environmental controls and respiratory protection



Module 8. HIV — The Basics

Objectives	 To identify what participants know and don't know about HIV in relation to TB To discuss the impact of knowing one's HIV status
Time	One hour
Materials	 Flip chart Markers Sticky notes Note cards for the alternative or second activity
Steps	 Tape flip chart sheets on different walls of the room. Write a different question at the top of each sheet: What is HIV? How is HIV transmitted? What are the signs and symptoms of HIV? What do we know about antiretrovirals (ARVs)? Ask participants to walk around in pairs and write down the following on each sheet: What they know about the topic Any questions Concerns and fears Review each sheet and respond to questions, concerns or misinformation. An alternative or second brainstorming activity could include these steps: Divide into pairs. Hand out five blank note cards to each pair. Ask pairs to write on each card questions or something they want to know about HIV. Tape the cards on the wall. Eliminate any repetition.

3. Discuss each of the questions, with participants contributing their ideas. Help to sort out

facts from misinformation.

Discussion

Key talking points

- HIV (or human immunodeficiency virus) is a virus that weakens the immune system and causes AIDS. HIV infection can generally be broken down into four distinct stages: primary infection, clinically asymptomatic stage, symptomatic HIV infection and progression from HIV to AIDS.
- AIDS refers to the advanced stage of HIV disease when a person manifests specific clinical infections (WHO staging).
- HIV is transmitted through unprotected sex, needles, breastfeeding or from an HIV-infected mother to her child. It is NOT transmitted through casual contact (kissing, hugging, sharing utensils) or by mosquitoes.
- Ways of preventing HIV include:
 - Using a condom consistently and correctly during sex
 - Getting treatment for curable STIs
 - Avoiding sharing needles
 - Prevention of mother-to-child transmission (PMTCT)
- It is important for people to know their HIV status so they can get health services.
- If the HIV test is positive, it is important to talk with a counselor and health care provider about how to take care of oneself:
 - Take cotrimoxazol preventive treatment (CPT) to prevent other infections that can weaken health.
 - Know the symptoms of other infections and treat them quickly and correctly.
 - Use a condom when having sex to prevent transmission of HIV to others and protect oneself from other infections.
 - Seek PMTCT services if pregnant.
 - Be screened for symptoms of TB and treated for TB immediately if found.
 - Consider IPT if no evidence of active TB exists.



Module 9. TB and HIV

Objectives To describe the association between TB and HIV To define TB/HIV co-infection To explain the impact of HIV on TB control efforts To explain why it is important for people with TB (or people suspected of having TB) to get tested for HIV Time One hour **Materials** Flip chart Markers Masking tape ■ Simplified Checklist (pages 8 and 17: Checklist 1, questions 12–15; Checklist 3, questions 6–8) ■ Blank note cards and note cards with true-or-false statements on them **Steps** Prepare sets of note cards with true-or-false statements on them. Put one statement on each card. Create one set of note cards for every four people and include one blank card in each set. Use the following numbered statements: **1.** TB is the same as HIV. There is no difference. **2.** TB is the leading cause of death among people who are living with HIV. **3.** People living with HIV are at high risk of becoming infected with TB and if infected of progressing to TB disease because their immune systems are weak. **4.** A person living with HIV can't be cured of TB. **5.** If a person has TB, it means he or she also has HIV or AIDS. Ask the group to form four-person teams. Give each team one set of cards and a true-or-false T-chart on a flip chart sheet. Ask each team to write additional true-or-false statement on the blank note card.

- Call "go" and have each team place their cards in the correct column on the T-chart, including the additional true-or-false statement about TB/HIV that each team writes on the blank card. Ask teams to present back and elaborate on the responses.
- Discuss questions 12 through 14 in Checklist 1 and questions 6 through 8 in Checklist 3 with the full group.

Discussion

Answers (by numbered statement)

- **1. False.** TB and HIV are a deadly combination. This is referred to as TB/HIV. Each disease makes the other progress faster. HIV weakens the immune system and makes it more likely for someone who is HIV positive and also infected with TB to get active TB than someone who is HIV negative.
- **2. True.** TB is the leading cause of death among people who are HIV positive.
- **3. True.** People with HIV are at increased risk of getting sick from TB because their immune systems are weak. TB is harder to diagnose and progresses faster in people who are HIV positive.
- **4. False.** TB can be cured in people living with HIV. The key is to start treatment quickly and complete the prescribed treatment.
- **5. False.** If a person is infected with TB, it doesn't mean that he or she has HIV or AIDS. However, it is recommended that they also be tested for HIV.

Key talking points

- It is important that people known to be HIV positive are tested for TB on a regular basis and that those with TB know their HIV status.
- People known to be HIV positive should know the signs and symptoms of TB.
- Apart from TB case finding, IPT and additional interventions are required to counteract the impact of HIV on TB, such as provision of ART, measures to decrease HIV transmission and care for people living with HIV and AIDS.
- Someone with HIV who is infected with TB is much more likely to progress to active disease than someone who is HIV negative.
- When someone who tests positive for HIV has latent TB, it should be treated right away before he or she develops active disease.



Module 10. TB and HIV Stigma

Objectives	 To describe a number of beliefs that affect people's attitudes toward TB and HIV To identify different forms and causes of stigma for TB and HIV in the community To explain how stigma affects health-seeking behavior and adherence to treatment To increase the comfort level of CHWs in implementing the Simplified Checklist
Time	One hour
Materials	Simplified ChecklistNote cards
Steps	 Myths and misconceptions 1. Prepare sets of note cards with myths or misconceptions on them. Put one myth or misconception on each card. Create one set of note cards for each team. Use the following statements: Women are the ones who give men TB. All people who have TB also have HIV. TB is caused by witchcraft. A person living with HIV can't be cured of TB. People with TB remain infectious. If one family member has TB, then all members have it. TB is a result of sin. Having sex with a virgin cures HIV. You can get TB from a woman who menstruates (or has aborted or miscarried). 2. Divide the group into small teams and distribute a set of belief cards to each team. Ask each team to try to explain the beliefs based on these questions: Where does this belief come from? What are some of the reasons or thinking behind this belief?

3. Hand out a blank note card to each participant and ask participants to write their answers to this question: *What factors affect what we believe about diseases such as TB?* Suggest answers if needed, such as family, peers, church or media messages and levels of trust in health workers.

Situational factors that lead to stigma⁵

- **1.** Ask participants these questions:
 - What is the current situation in the community regarding stigma related to TB? HIV?
 - What forms of stigma are common in the community? Provide examples of each: internal or self-stigma, external, dual.
 - What are some of the background factors?
- **2.** Divide into small teams. Each team will explore a different aspect of stigma:
 - Different forms of stigma
 - Discrimination
 - Causes
 - Effects
- **3.** Each team will identify the questions in the *Simplified Checklist* that may involve stigma and discuss why and what actions are needed to address stigma against TB and HIV (such as confidentiality, workplace policies, TB support groups and health education).

Discuss different forms of stigma:

- Isolation, insults, blaming, judging
- Self-stigma people living with TB, HIV, or both blaming themselves
- Stigma by association entire family affected by stigma
- Stigma based on looks and appearance or type of occupation

Discuss different effects of stigma:

- Feeling isolated, rejected, condemned, forgotten or useless
- Kicked out of family, house, work or rental accommodation
- Dropping out of school (resulting from peer pressure, insults), depression, suicide and alcoholism

Examples:

- Secrecy and silence around TB and HIV difficulty talking about them
- Denial that TB or HIV is a problem
- Denial of services
- Blaming the person for the disease
- TB- and HIV-affected households are targets for insults, exclusion and discrimination
- Hidden conflicts between different households

International HIV/AIDS Alliance, Academy for Educational Development. Understanding and challenging HIV stigma: Toolkit for action. Washington, DC: International Center for Research on Women; 2007.

- High levels of fear, fatalism and hopelessness
- Lack of knowledge and fear of infection through casual contact
- Huge workload in TB- and HIV-affected households, including care
- High levels of poverty and unemployment impact on TB and HIV and stigma
- Young women at high risk coercion, poverty and limited control over sexuality
- **4.** Teams present back to the group.

Discussion

Discuss reasons why people may not trust factual information provided on TB and HIV:

- Educators give confusing or incomplete information.
- People may not believe an educator because of their own beliefs.

Discuss traditional beliefs that make people distrust TB and HIV facts:

- HIV is the result of sin.
- God is punishing you so there is no cure.

Discuss background factors, which might include:

- Association with conditions already stigmatized (HIV, poverty, hygiene, living conditions)
- Lack of a nondiscrimination policy
- Social disapproval

Time permitting:

Discuss which has greater stigma — TB or HIV — now and before the days of HIV.



Module 11. Trust and Confidentiality

Objectives To discuss what we mean by "trust" and "confidentiality" To increase awareness of the values of trust and confidentiality To think about how we can keep ourselves and others safe when we discuss personal and sensitive information To apply trust and confidentiality on home visits to TB patients Time One hour Materials Flip chart Markers Simplified Checklist (pages 5–11, Checklist 1)

Steps

- 1. Question the group: What local words shall we use for trust and confidentiality?
- **2.** Ask the group to break into groups of four people. (Alternatively, brainstorm in the large group.) Imagine that you have some kind of health problem that you feel embarrassed about. You want to seek some advice from someone, perhaps a relative, a neighbor or a health worker. Talk together about this topic: *What qualities would you look for in the person whose advice you seek?*
- **3.** Call everyone back into the full circle and ask people to describe the kinds of qualities that have been discussed. Say that we all have sensitive experiences in life that we would like to share with someone who we feel could reassure or help us. Ask the group to think about their own qualities: **Do you behave in a way that helps people trust you?**
- **4.** Ask the group to think about sharing personal experiences: *What are some good things about sharing personal experiences in the group?* Explain the concept of shared confidentiality, that we learn a lot from talking together about our own experiences. It can help us understand our lives, solve problems, feel better and gain strength from one another.

- **5.** Question the group: *What are the risks from telling personal stories?* Explain that we can't guarantee that none of us will talk to other people about our stories. If confidentiality is broken outside of this group, someone might be angry or hurt.
- **6.** Ask the group to think about personal disclosure: *How can we work in the workshop and in the community so that we enjoy the benefits and reduce the risks?* Explain that we should think carefully before we disclose personal things in the group and in the community. We could tell our stories as if they happened to another person (no names) or "to people like us." Some of us have some of the problems discussed in the group. We may have had TB or have HIV. We should always talk about problems in a caring way without judging or joking.

Discussion

Discuss how you can protect the confidentiality of a person living with TB, HIV or both.⁶

- Discuss the person's TB or HIV status and any related issues when he or she is alone or is comfortable.
- Handle all of the person's records, registers and documents in a confidential manner.

⁶ International HIV/AIDS Alliance, Academy for Educational Development. Understanding and challenging HIV stigma: Toolkit for action. Washington, DC: International Center for Research on Women; 2007.



Module 12. Putting It All Together

Objectives To demonstrate skills for interpersonal communication with individual TB patients, the family and community members about prevention of TB transmission in the household and in the community To identify weaknesses in communication and ways to improve communication skills To practice using the Simplified Checklist in different hypothetical situations or scenarios Time 1 hour 30 minutes Flip chart Markers Simplified Checklist 1. Lecture (15 minutes) Review how a TB patient can transmit TB to other family members in the household

- Review how a TB patient can transmit TB to other family members in the household and to other people in the community.
- Review the basic concepts of interpersonal communication to reduce risk of TB transmission in the household and in community settings (target audiences, communication objectives, verbal and nonverbal communication).
- Discuss how to increase communication effectiveness (using personal testimonials and open-ended, probing questions).
- Discuss how a CHW can know that their communication works.
- Review good listener characteristics: "big ears, small mouth."
- Discuss the strategy of rephrasing and summarizing what someone says: Build upon what people know get their information first.
- Discuss using appropriate, simple language.

2. Role play (one hour)

Break the group into three teams. Assign a case scenario to each team (see the scenarios on page 45). The teams will spend 30 minutes to plan for a 5- to 10-minute role play using the checklist. After each team finishes its role play, the other teams will comment on the strengths and weaknesses of the communication in the role play. The facilitator then will give the final comments.

3. Summary of the session (5 minutes)

Discussion

Key talking points

While one group is performing a role play, the other two groups will observe the role play and provide the following comments:

- **1.** Were the messages clear?
- **2.** Did the CHW use any jargon with the target audience?
- **3.** Did the CHW listen to the target audience?
- **4.** Did the CHW give an opportunity for the target audience to ask questions?
- **5.** Did two-way communication take place?
- **6.** Did you observe any nonverbal communication that encouraged or discouraged the target audience?
- **7.** Did the CHW use any visual materials to facilitate communication?
- **8.** If you were the target audience, would your knowledge, attitudes and behavior be changed by the CHW? Why or why not?

Role Play Scenarios

Scenario 1. Communication with a patient who has TB/HIV

Nana is a 26-year-old mother with TB/HIV living with two children (ages 5 and 3). Her husband died due to TB and HIV. She stops going to the health center for daily TB medicine because of feeling hopeless with her TB treatment. She thinks she will die like her husband due to TB/HIV co-infection. You are a community health worker on a visit to Nana's house. *Which Checklist questions are likely to highlight the current issues?* How can you communicate with Nana and convince her to resume TB treatment as well as to bring her two children for preventive therapy?

Key issues

- TB is curable despite the HIV co-infection.
- Adherence to TB treatment prevents TB transmission to children and other household members.
- Children under 5 years old are particularly at risk of TB infection and developing TB disease. Have the children been coughing? IPT can prevent TB for children.

Scenario 2. Communication with household family members

You are a community health worker working in an area with high HIV prevalence. You visit a TB patient's home today and observe that all windows and doors are closed. Please demonstrate a 5- to 10-minute role play to convince the household members to open the windows and encourage the household members to get HIV testing and TB screening. Which Checklist questions will highlight this problem?

Key issues

- TB is an airborne disease. An untreated TB patient can spread TB droplet nuclei to others by coughing, sneezing, speaking or singing.
- Opening the windows increases the air volume, which disperses the droplet nuclei.
- Opening the windows and improving household ventilation therefore reduces the risk of other household members inhaling TB droplet nuclei.
- HIV can increase the risk of developing TB disease. Know your HIV status.

Scenario 3. Communication with a group of community residents

Tetto is a 28-year-old man. He was diagnosed as having TB/HIV co-infection. He lives alone in a small house. He received TB treatment for more than three months. He has gained body weight and stopped coughing. The TB program says no more TB bacteria are visible via a microscope. Nobody comes to visit him at home, fearing they might get TB from him. Although a job is available near his home and he is strong enough to work, nobody recruits him, as they believe that Tetto will spread TB to others. Tetto feels so discouraged and decides to leave his community in search for a job in the town.

As a community health worker, please demonstrate a 10-minute communication session with a group of community people. How can you change people's awareness and attitudes about Tetto? How can you communicate that Tetto is not an infectious case? *Which Checklist questions address the current issues*?

Key issues

- TB is an airborne disease. Touching TB patients or sharing eating and drinking utensils with patients does not transmit TB
- TB patients (with drug-susceptible organisms) who strictly take anti-TB drugs for two weeks will become noninfectious. The risk of spreading TB to contacts is greatly reduced, as long as the patient continues taking the full course of drugs.



Module 13. Community Risk Mapping

Objectives To define community mapping (risk mapping) To identify high-risk areas for TB transmission To agree on TB infection control interventions for the community Time One hour **Materials** Flip chart Markers ■ Simplified Checklist (pages 12–15, Checklist 2) **Steps 1.** Explain the importance of a risk map. 2. Divide participants into teams. Ask the teams to draw a map of a well-known catchment area with a high TB burden to demonstrate risk mapping. **3.** Ask each team to make a presentation of their map, emphasizing the areas with high risk of TB transmission and the TB infection control measures that should be in place. Refer to Checklist 2. **Discussion** Explain the importance of risk mapping. A risk map highlights areas needing special attention. ■ TB risk mapping allows for key locations to be identified and interventions to be put in place to control TB transmission. (Examples of key locations include health facilities where TB is diagnosed and treatment provided, local bars where individuals congregate regularly, movie houses and other areas where people congregate.) Risk mapping is a tool that can be used and developed by the local community to show the area's distribution of resources, the site of social services and location of priority venues for education and intervention.

Discussion continued

Key talking points

Demonstration of risk mapping

The risk mapping should include a health facility and other significant landmarks around the facility, including a catchment area where there will be households with TB patients, schools, roads, social clubs or bars and churches. Risk mapping should be done with utmost care not to identify individual households, which can contribute to the problem of stigma.

Discuss how risk mapping can be used for TB control with emphasis on implementation of community-level infection control measures.



Module 14. Teamwork

Objectives	 To demonstrate the power of team problem-solving To define the concept of teamwork To describe behaviors that support team problem-solving To name at least five benefits of teamwork To discover at least five challenges of teamwork
Time	One hour
Materials	Flip chartMarkersBroken Squares Template (Handout 9)

Steps Broken Squares Exercise

Complete these steps before the training session:

- **1.** Write these rules for the exercise on a flip chart:
 - No team member may speak.
 - Team members may not signal others to give them a piece of the puzzle or take pieces from others.
 - Team members may give pieces of their puzzle to other members of the team.
 - Observers will watch to ensure that members follow the rules.
 - Team members have 15 minutes to complete the task.
- **2.** Create a set of envelopes for each team based on the Broken Squares Template (Handout 9). Cut pieces of paper into the three shapes marked for each of the five squares on the template. Randomly put three of the 15 pieces of paper into an envelope for each team member.

Complete these steps during the training session:

- **1.** Divide participants into teams of five people. Assign at least one observer to each team until all participants have been assigned a role.
- **2.** Give each team member an envelope with three paper shapes. Instruct the team to form five squares of equal size. The task is not complete until each team member has a perfect square of the same size as those in front of the other team members.
- **3.** Call time after 15 minutes. Show the players who were unable to complete the squares how to do so.
- **4.** Discuss what happened during the game and lessons learned:
 - In what way do you think each of you helped or hindered the group in completing the task?
 - How did members feel when someone holding a key piece didn't see the solution?
 - How did members feel when someone completed their square and then sat back from the rest of the group?
 - Did anyone break the rules?
 - What are some of the lessons learned from this game as applied to your life and to your work as CHWs?

Teamwork Exercise

- **1.** Divide the group into different teams of five people.
- **2.** Pose a question: When you hear the word teamwork, what comes to your mind? Ask participants to write that on a SNOW card.
- **3.** Ask participants to write what teamwork is not.
- **4.** Ask participants to discuss this with their teams and summarize their thoughts on a T-chart.

Discussion

Key talking points

Benefits of teamwork

- There is plenty of opportunity for discussion.
- There is significant support.
- The whole is greater than the sum of its parts is honored.
- The team seeks to discover its identity.
- The process is one of openness and honesty.
- The facilitator seeks team decisions.
- The team welcomes new members.
- Teamwork distributes the workload.
- Better decisions are made when team members work together.
- Teamwork generates a diversity of ideas and solutions.
- Teamwork builds a workplace community.

Discussion continued

Challenges of teamwork

- A few individuals might end up doing most of the planning and work.
- Things decided in team meetings aren't acted upon; tasks delegated to individuals are forgotten or left undone.
- Team members come late and leave early from meetings.
- Teams are designed with no concern for how team members will work together.
- Team members do not value relationships with others on the team and perceive team meetings as a waste of time.
- Some team members resent others either for not doing their share of the work or not allowing others to contribute to the work.



Module 15. Planning for Scale-up

Objectives	 To determine relevant stakeholders To develop a process for obtaining stakeholders' feedback on the implementation process To identify key champions who can promote scale-up To develop a plan for participating in key national and local networks and partnerships that are involved in TB infection control
Time	Two hours
Materials	■ Flip chart ■ Markers
Steps	 In the large group, discuss hopes and expectations for scaling up the <i>Simplified Checklist</i> (the innovation). List concerns and potential challenges on a flip chart. Assign the group to small teams of four or five participants. Ask teams to consider and discuss scaling up action steps based on the topics in the discussion list.
Discussion	Recommended action steps to consider (in small groups) ⁷ 1. Assessing scalability and implications for scaling up Credibility — Is the innovation (checklist) based on sound evidence, advocated by respected persons or institutions or both? Which components are central to success? Which components can be simplified to facilitate scaling up? Observability — Can potential users of the innovation see the results in practice? How can it be improved or better communicated to TB program managers and key stakeholders? Relevancy — Does the perceived relevancy of the innovation need to be strengthened? If so, how?

 $^{^{7}\,}$ ExpandNet.Worksheets for developing a scaling-up strategy. Geneva: World Health Organization; 2010.

Discussion continued

- **Relative advantage** Does the innovation have an advantage over existing practices or over other models? How can it be promoted more effectively?
- **Ease of implementation** Will it be easy or complicated to implement the innovation in new sites? Are there major resource requirements in scaling up the innovation?
- **Compatibility** Is the innovation compatible with established values, practices and facilities? What components might need to be locally adapted?
- **Testability** Can the user organization test the innovation without fully adopting it? Can it be introduced in stages?

2. Assessing the user organization and implications for scaling up

- What organizations are expected to adopt the innovation? At what level should it be adopted? What steps need to be taken to make these decisions?
- Do the user organizations have the capacity to implement the innovation in these terms:
 - training capacity
 - technical skills
 - leadership, management and supervision
 - personnel to take on the new tasks implied by the innovation
 - resources needed
 - logistics and supplies
 - physical facilities
 - monitoring and evaluation capacity
- Can this be done without detracting from the user organization's capacity to provide services?
- Is implementation capacity evenly distributed across the entire user organization? Or are some sites or regions of the country stronger than others?
- Are mentoring organizations available to provide support to organizations that want to adopt the innovation?

3. Assessing the environment and implications for scaling up

- What are the different environments that are influencing or are likely to influence the scaling up process? Consider the following:
 - Health sector
 - Ministry of Health
 - Bureaucratic culture
 - People's needs and rights
 - Policy setting and political system
 - Rules and regulations, statutes

Discussion continued

- Socioeconomic and cultural characteristics
- Financial constraints
- Human resource availability
- Other?
- Where, in each dimension of the environment, is there likely to be support for the innovation? How should this be mobilized?
- Where is there likely to be oppositions, obstacles or constraints? What can be done to reduce or avoid constraints?

4. Types of scaling up, dissemination approaches and advocacy

Include these definitions in the discussion:

- **Vertical** Innovations are institutionalized through policy and political, legal or budgetary actions, or a combination of these.
- **Horizontal** Innovations are replicated in different geographic sites or extended to serve larger or different populations.
- **Grafting or functional** Testing and adding interventions to a group of interventions.



Module 16. Community Education Planning

Objectives	 To identify priority target groups and activities for TB infection control To develop a work plan for implementing the Simplified Checklist in the community for TB infection control
Time	One hour
Materials	 Flip chart Markers Community Work Plan (Handout 10) Simplified Checklist (pages 12–15, Checklist 2)
Steps	 Divide the group into small teams. Give each team flip chart sheets with the following headings: Situation SWOT analysis (strengths, weaknesses, opportunities and threats): What is the current situation in the community regarding community-based TB infection control? Goal: What is the ultimate purpose of the program? (To increase infection control measures in household and community settings.) Objectives: What changes do you want to effect within what time frame? Activities: What activities will you carry out to reach that goal? Who will do it: Who is responsible for implementing these activities? Indicators: What might show that we have been successful? Date completed: What are our target dates for completing these activities? Ask each team to brainstorm what needs to be done in their community to implement Checklist 2 in the Simplified Checklist. Get them started by introducing some key concepts about objectives and evaluation.

Objectives: SMART stands for these recommendations for creating objectives:

Specific — Use clear language with enough detail to avoid ambiguity.

Measurable — Give people something to work toward; provide tangible evidence that the objective was completed. An example of a measurable objective is "a 10 percent increase in participation."

Attractive — Objectives are stated in a way that encourages and influences others to accept and agree to the objective and to be involved in its accomplishment.

Realistic — Objectives are attainable and not too ambitious. They may take extra work and resources, but can happen.

Time-framed — Include a final deadline, smaller incremental stopping points if applicable or both. Working toward a future date aids in planning the work that needs to happen and when it should happen.

Activities: What activities will you carry out to reach that goal? Which activities are the most important?

- Training workshops for households, community and peer leaders
- Community and peer group meetings and awareness-raising in schools
- Development of community and peer group action plans
- Home visits and support for TB- and HIV-affected households

Priority activities: Which activities are the most important?

Who will do it and what do they need: Who will be involved in carrying out this activity? What resources do they need to accomplish the objective?

Indicators: What things will show that you've been successful?

- More people visiting each other and providing support and comfort
- More openness in discussing issues around TB and HIV
- Increased use of health services
- Increased knowledge about TB transmission
- More CHWs aware of the signs and symptoms of TB and of applying TB infection control measures that can be implemented in their work settings
- **3.** Lead a group discussion about the kinds of education activities the teams considered for their communities and the indicators that might be required. See the discussion section below for topics.
- **4.** To close, present the material on evaluation mechanisms on page 57.

Discussion

Key talking points

Example activities

- Needs assessment and gap analysis
- Training workshops for community health workers
- Community and peer awareness-raising
- Community participatory education on new facts about TB and HIV issues

Example indicators

- More people coming for TB screening and HIV counseling and testing
- More openness in discussing issues around TB/HIV
- Increased knowledge about TB/HIV transmission
- Decrease in TB among CHWs and family members

Additional information on evaluation

Evaluation Mechanisms — Sites should maintain records of each program goal and the strategies identified above. The following are some general concepts on evaluation. These concepts may be helpful as sites plan to evaluate their goals, objectives and activities.

Program evaluation is divided into three types: process, outcome and impact. Each evaluation type has corresponding indicators. Indicators define the program attributes that are being evaluated. Indicators address criteria that will be used to judge the program (such as the program's capacity to deliver services, participation rate and levels of client satisfaction). In addition, sources of evidence are the people, documents or observations that provide documented information on the results of the educational activity being evaluated.

1. Process evaluation assesses the extent to which the program is operating as planned, focusing on inputs and outputs. This section covers the means, tools and procedures by which the objectives are achieved.

Indicators include staff capacity to implement an activity, activity type and frequency, materials used, number of educational materials handed out, and type and number of partnerships created.

Examples: Number of household checklists completed, number of training sessions organized on TB infection control in household and community settings, number of community health workers trained

2. Outcome evaluation measures the results of an intervention.

Indicators include the level of knowledge acquired by the audience after an educational activity and audience reactions or level of satisfaction after an activity.

Results are the direct products of program activities.

Quality is the measure of the program's success based on the results obtained and the processes adopted.

Example: Conducting a pre- and post-test with five community groups to monitor changes in the community's understanding of key concepts of TB/HIV and TB infection control. We will provide these tests at three different times throughout the year to gauge one-time knowledge increase and retained knowledge of the community groups.

3. Impact evaluation measures the effect a program has beyond the program's scope. An impact evaluation focuses on the program's long-term outcomes.

Indicators include changes in individual behavior, community norms, policies or practices, health status and quality of life.

Example: The increase in community support for TB infection control efforts, documented by independent acts of support made in communities. For example, a community group may decide to sponsor events or talks about TB/HIV or TB infection control with their constituents, to organize activities that build awareness or to speak out in public forums.



Module 17. Advocacy for Community-based TB Infection Control

Objectives To develop a common definition of advocacy To identify and describe practical examples of advocacy for scaling up community-based TB infection control To describe why advocacy for TB infection control is important One hour Time **Materials** Flip chart Markers Simplified Checklist Steps **1.** Write "Advocacy" on a flip chart sheet. 2. Ask participants to share key verbs and other words that come to mind when they think of advocacy. Write all responses on the flip chart. **3.** Divide participants into small teams. Ask each team to develop a definition of advocacy by using the words and concepts listed on the flip chart. **4.** Each team presents their definition. **5.** When all definitions are posted, ask participants to consider these questions: What common themes come up in the different definitions? (Highlight common themes on the flip chart with a colored marker.) ■ What is the difference between advocacy and related concepts? (These definitions can help to clarify the concepts.) Advocacy mainly targets people who have influence on others. ■ Information, education and communication (IEC) mainly focuses on raising awareness and changing behavior Community mobilization builds community capacity to identify its needs and take action to meet them. Networking specifically involves joining and communicating with people and groups for a common purpose.

- **6.** In small teams, come up with an outline of advocacy steps for scaling up TB community-based infection control. Examples can cover all levels (local, national and international) and cover a variety of dissemination methods and levels of collaboration with others. Key questions to address include:
 - What is the problem?
 - Who decides to advocate addressing the problem?
 - What is the advocacy objective?
 - What is the timeframe for advocacy?
 - Who is the target of the advocacy? Who are the stakeholders you need to influence? (Policymakers, the media, TB program managers, providers, community members, professional and advocacy groups)
 - What is the best way to communicate with the target and stakeholders?
 - What messages should you use?
 - How do you need to tailor your messages?
 - What are some of the potential difficulties?
 - How might the difficulties be overcome?
 - What are the expected outcomes of the advocacy effort?
 - What sources of assistance would be most helpful?
 - What is learned from this effort?

Discussion

Key talking points8

Example definitions

Advocacy is speaking up, drawing a community's attention to an important issue and directing decision makers toward a solution.

Advocacy is a process to bring about change in the policies, laws and practices of influential individuals, groups and institutions.⁹

Advocacy is winning the support of key constituencies to influence policies and spending and bring about social change.⁹

⁸ World Health Organization. TB IC training for managers at the national and subnational level. Geneva: World Health Organization; 2009.

⁹ World Health Organization. Networking for policy change: TB/HIV advocacy training manual. Washington, DC: World Health Organization, Constella Futures, STOP TB Partnership; 2007.

Discussion continued

Example issues

- TB infection control (frame within the broader context of infection control)
- MDR TB
- Community-based (versus facility-based) TB care and treatment
- TB/HIV
- Adherence to DOT
- New TB diagnostics
- Shorter treatment regimens
- Stigma and human rights issues
- Second-line TB drugs

Example key messages

- TB infection control is an integral part of comprehensive TB control.
- It can play an important role in enhancing the infection control capacity of health systems.
- It can contribute to control of airborne infections.
- It is essential to combat MDR and XDR TB.

Possible actions

- Inclusion of TB infection control in funding applications
- Support of human resources development
- Promotion of health systems strengthening as a critical component of TB infection control and vice versa
- Funding of operational research on TB transmission and on building the evidence base for TB infection control interventions



Module 18. Monitoring and Supervision

Objectives To describe administrative controls and why following them is important To define the role of monitoring and supervision in implementing the Simplified Checklist To establish a system for organizational support and evaluation of CHWs who promote TB infection control at the household, community and organizational level One hour Time **Materials** Flip chart Markers Simplified Checklist (pages 16–17, Checklist 3) SOP 201 (Handout 8) **Steps** 1. With the entire group, review administrative controls and discuss how they protect health care workers. Discuss definitions of monitoring and supervision. **2.** Divide into teams with one TB manager in each team. 3. Discuss current methods of monitoring and supervision. What works well and what could be improved? **4.** Develop a list of performance indicators for TB infection control activities using the checklist. **5.** Within each small team, complete Checklist 3 in the *Simplified Checklist*. Ask each team to report back to the entire group.

Discussion

Key talking points

- Administrative controls are the first priority because they have been shown to be effective, are less expensive and can be readily implemented by managers and CHWs.
- Monitoring refers to the routine tracking and reporting of priority information about a program or project, its inputs and intended outputs, outcomes and impact. In the context of a TB infection control program, it also refers to the interactions between health facility staff and CHWs to identify challenges in implementing TB infection control activities and to discuss solutions. Monitoring is essential for supervision. Monitoring methods include review of data from records, reports observation and surveillance.
- **Supervision** meetings of CHWs occur on a regular basis to:
 - Review accuracy and completion of records and reports (check time intervals)
 - Assess the occupational risk of the CHW and make accommodations accordingly (based on level of risk)
 - Evaluate changes in function or need
 - Provide support and listen to the concerns of the CHW
 - Discuss difficult cases and situations with the CHW
 - Discuss what is going well and should be reinforced and replicated elsewhere
 - Discuss areas for improvement and steps that will be taken
 - Assess the need for continuing education and training
 - Provide personal protective equipment (respirators) and an accompanying fit-testing program, where resources allow
 - Encourage HIV testing and TB diagnostic investigation
- **If a CHW tests positive for HIV**, a supervisor should take the following steps:
 - Prevent exposure to untreated TB (relocate, maintain confidentiality).
 - Ensure that the CHW is aware of the signs and symptoms of TB and has access to TB screening as needed.
 - Provide regular screening for active TB.
 - Recommend ART and refer the CHW to a provider or provide access to ART.



Module 19. Wrap-up, Post-test and Evaluation

Objectives	 To complete the TB Quiz post-test and review the correct responses To obtain verbal and written feedback of the training To provide each participant with a certificate of completion (if applicable)
Time	45 minutes
Materials	 Flip chart Markers Handouts: TB Quiz, blank (Handout 3), Training of Trainers Evaluation (Handout 11) Certificates (optional, depending on local criteria) Pens
Steps	 Distribute blank copies of the TB Quiz to participants and ask them to complete the quiz. Collect all post-tests and review the correct responses with the large group. At the same time, a co-facilitator will tally up the scores and post the results on a flip chart. This will compare incorrect answers on the post-test with incorrect answers on the pre-test. Ask all participants to fill out the TOT evaluation form and to provide as much detail as possible. After collecting the evaluation forms, re-visit the hopes and fears list and check in with participants as to whether they felt the workshop adequately addressed their concerns. (Some concerns may be beyond the scope of the workshop.) Ask each participant to share what they found most useful about the workshop. Present each participant with a certificate, if applicable. Thank everyone for their participation.
Discussion	When reviewing the TB Quiz answers, check for full understanding, particularly the questions missed most frequently.



IV. Handouts

Handout 1. Suggested Training Schedule for TB Infection Control at the Community Level

Day One

8:30–9:30 a.m. Getting to Know You

Overview

Hopes and Fears

Developing Group Ground Rules

9:30–10:30 a.m. Principles of Adult Learning

10:30-10:45 a.m. Tea

10:45–11:45 a.m. TB — The Basics

11:45 a.m.–12:45 p.m. TB Infectiousness and Infection Control

12:45–1:45 p.m. Lunch

1:45–3:45 p.m. TB Infectiousness and Infection Control (continued)

3:45-4:00 p.m. Tea

4:00–5:00 p.m. HIV and AIDS — The Basics 5:00–5:15 p.m. Wrap-up and Daily Evaluation

Day Two

8:30–8:45 a.m. Summary of Previous Day

8:45–9:45 a.m. TB and HIV

9:45-10:00 a.m. Tea

10:00–11:00 a.m. TB and HIV Stigma

11:00 a.m.-12:00 p.m Trust and Confidentiality

12:00–1:00 p.m. Lunch

1:00–2:30 p.m. Putting It All Together

2:30–3:30 p.m. Community Risk Mapping

3:30–3:45 p.m. Tea

3:45–4:45 p.m. Teamwork

4:45–5:00 p.m. Wrap-up and Daily Evaluation

Day Three

8:30–8:45 a.m. Summary of Previous Day

8:45–10:00 a.m. Planning for Scale-up

10:00–10:15 a.m. Tea

10:15–11:30 a.m. Planning for Scale-up (continued)

11:30 a.m.–12:30 p.m. Community Education Planning

12:30–1:30 p.m. Lunch

1:30–2:30 p.m. Advocacy for Community-based TB Infection Control

2:30–3:00 p.m. Monitoring and Supervision

3:00–3:15 p.m. Tea

3:15–3:45 p.m. Monitoring and Supervision (continued)

3:45–4:30 p.m. Questions, Wrap-up and Evaluation of Training



Handout 2. Hopes and Fears Sample T-chart

What I hope to achieve in this training course:	My fears before I came to this course and my fears at the moment:



Handout 3. TB Quiz

Answer the following questions by ticking either the true or false box.

General	True	False
1. TB is an airborne, infectious disease that most commonly affects the lungs.		
2. TB is becoming more difficult to treat because of more drug resistance.		
3. TB affecting other body parts, such as brain, glands and spine, is just as contagious as lung TB.		
4. A person with active TB of the lungs can produce infectious TB droplets containing bacilli.		
5. Sputum fallen to the ground is just as infectious as the droplets containing TB bacilli, which can remain suspended in the air for many hours.		
6. Everyone who gets exposed to and infected with TB will get sick with TB disease.		
7. The most common symptoms of TB include coughing, fever, night sweats and weight loss.		

тв	Transmission	True	False
В.	A person gets infected with TB by breathing in the air from a person with TB who is coughing.		•
9.	A person can get TB by staying in the same house with someone who has TB.		
10.	Once a person starts effective TB treatment, they can still transmit TB to other people for years, even after full TB treatment.		
11.	A person with TB of the lungs can cough and spread bacilli to others if they are together in crowded places like movie houses or bars.		
12.	Community health workers are not at risk of getting infected with TB because they have been vaccinated with BCG.		
	Infection Control A simple mask or cloth for a coughing patient is a good way to reduce the spread	True	False
13.		True	False
13. 14.	A simple mask or cloth for a coughing patient is a good way to reduce the spread of TB. Keeping coughing patients with possible TB away from other patients is a good	True	False
13. 14.	A simple mask or cloth for a coughing patient is a good way to reduce the spread of TB. Keeping coughing patients with possible TB away from other patients is a good way to prevent TB transmission. If you are coughing or sneezing, you should cover your nose and mouth with	True	False
13. 14.	A simple mask or cloth for a coughing patient is a good way to reduce the spread of TB. Keeping coughing patients with possible TB away from other patients is a good way to prevent TB transmission. If you are coughing or sneezing, you should cover your nose and mouth with hands, cloth or a simple mask. Keeping doors and windows open is an important way to prevent TB transmission	True	False

TB/HIV	True	False
20. There is no relationship between TB and HIV.	0 0 0 0 0 0 0 0 0 0	
21. A person living with HIV can't be cured of TB.	8 0 0 0 0 0 0 0 0 0	
22. TB is the most common opportunistic infection and the leading cause of death among people living with HIV.	0 0 0 0 0 0 0 0	
23. A person with HIV is more likely to get sick with TB disease than a person who is HIV negative.	0 0 0 0 0 0 0 0 0 0	
24. A person should never take ARVs and TB treatment at the same time.		
25. Community health workers who are living with HIV should try to avoid work with active TB patients in closed environments, such as in their homes.		

TB Quiz, Answer Key

General	True	False
1. TB is an airborne, infectious disease that most commonly affects the lungs.	V	
2. TB is becoming more difficult to treat because of more drug resistance.	'	
3. TB affecting other body parts, such as brain, glands and spine, is just as contagious as lung TB.		V
4. A person with active TB of the lungs can produce infectious TB droplets containing bacilli.	V	
5. Sputum fallen to the ground is just as infectious as the droplets containing TB bacilli, which can remain suspended in the air for many hours.		V
6. Everyone who gets exposed to and infected with TB will get sick with TB disease.		V
7. The most common symptoms of TB include coughing, fever, night sweats and weight loss.	•	

TB	Fransmission	True	False
8.	A person gets infected with TB by breathing in the air from a person with TB who is coughing.	'	
9.	A person can get TB by staying in the same house with someone who has TB.	v	
10.	Once a person starts effective TB treatment, they can still transmit TB to other people for years, even after full TB treatment.		V
11.	A person with TB of the lungs can cough and spread bacilli to others if they are together in crowded places like movie houses or bars.	V	
12.	Community health workers are not at risk of getting infected with TB because they have been vaccinated with BCG.	0	•
тв	nfection Control	True	False
	A simple mask or cloth for a coughing patient is a good way to reduce the spread of TB.	True 🗸	False
13.	A simple mask or cloth for a coughing patient is a good way to reduce the spread		False
13. 14.	A simple mask or cloth for a coughing patient is a good way to reduce the spread of TB. Keeping coughing patients with possible TB away from other patients is a good	V	False
14.	A simple mask or cloth for a coughing patient is a good way to reduce the spread of TB. Keeping coughing patients with possible TB away from other patients is a good way to prevent TB transmission. If you are coughing or sneezing, you should cover your nose and mouth with	V	False
13. 14. 15.	A simple mask or cloth for a coughing patient is a good way to reduce the spread of TB. Keeping coughing patients with possible TB away from other patients is a good way to prevent TB transmission. If you are coughing or sneezing, you should cover your nose and mouth with hands, cloth or a simple mask. Keeping doors and windows open is an important way to prevent TB transmission	V	False

TB/HIV	True	False
20. There is no relationship between TB and HIV.	0 0 0 0 0 0 0 0	•
21. A person living with HIV can't be cured of TB.	0 0 0 0 0 0 0 0 0	'
22. TB is the most common opportunistic infection and the leading cause of death among people living with HIV.	'	0
23. A person with HIV is more likely to get sick with TB disease than a person who is HIV negative.	•	
24. A person should never take ARVs and TB treatment at the same time.		'
25. Community health workers who are living with HIV should try to avoid work with active TB patients in closed environments, such as in their homes.	•	0 0 0 0 0 0 0



Handout 4. Eight Ways of Knowing



Verbal-Linguistic

The intelligence of words, language, both written and spoken.

Ex: describing techniques



Logistical-Mathematical

Deals with inductive and deductive thinking, numbers, abstract patterns; scientific. *Ex: examining outcomes*



Visual-Spatial

Relies on sense of sight and ability to visualize; includes ability to create mental images.

Ex: watching a demonstration



Bodily-Kinesthetic

Relates to physical movement and the wisdom of the body.

Ex: try it out – do it!



Musical-Rhythmic

Deals with recognizing tonal patterns, sounds, rhythms, beats. *Ex: use of a song to memorize or review information*



Intrapersonal

Relates to self-reflection awareness of internal states of being, knowledge of self. Ex: reflect on personal meaning



Interpersonal

Has to do with person-to-person relationships and communication; good at "reading the room," what's going on.

Ex: noting individuality and

commonality in a group



Naturalistic

Deeply felt knowledge and sense of nature, the order of things, how and why nature works.

Ex: get out of the mind and recognize your gut feeling.

Source: Lazear D. Seven pathways of learning. Arlington Heights, Illinois: Skylight Professional Development; 1994.



Handout 5. Learning Style Bingo

В	I N	G	0
Has a keen sense of the outdoors, what's happening in nature	Enjoys crossword puzzles and/or word games like Scrabble	Sees things that others are likely to miss, including patterns, colors, lines or shapes	Handles objects skillfully, perhaps via sewing, carving or sculpture
Can hear two beats of a song on the radio and know what it is	Skilled at language, knowing what to say, putting words together	Seems to know when trouble is brewing among staff members long before others	Is good at those puzzles where numbers are in a pattern and the missing one has to be determined
Can go shopping for home décor, put it in place, and have it come out beautiful and tasteful	Prefers to keep a journal or diary, recording innermost thoughts and feelings	Can control body movements with ease, such as dancing, jumping or skating	Can usually sense the moods, thoughts or feelings of others; "reads people" well
Typically seeks out periods of isolation, such as a retreat, to gain knowledge of self	Is good at thinking logically, seeing the connections and patterns	Can hear and sing the harmony to someone else's melody	Easily recognizes the subtle clues of changing seasons

Consider someone you know. Select which of the above attributes describes them. Do not use yourself. Which learning styles do they use?

Call out "Bingo" when you have checked off boxes four across, four down, or four diagonally.



Handout 6. Learning Styles

Visual Learners

Learn through seeing ...

These learners need to see the teacher's body language and facial expression to fully understand the content of a session. They tend to prefer sitting at the front of the classroom to avoid visual obstructions (such as other people's heads). They may think in pictures and learn best from visual displays including diagrams illustrated textbooks, overhead transparencies, videos, flip charts and handouts. During a lecture or classroom discussion, visual learners often prefer to take detailed notes to absorb the information. They remember people by sight and don't forget faces.

Auditory Learners

Learn through listening ...

They learn best through verbal lectures, discussions, talking things through and listening to what others have to say. Auditory learners interpret the underlying meanings of speech through listening to tone of voice, pitch, speed and other nuances. Written information may have little meaning until it is heard. These learners often benefit from reading text aloud and using a tape recorder.

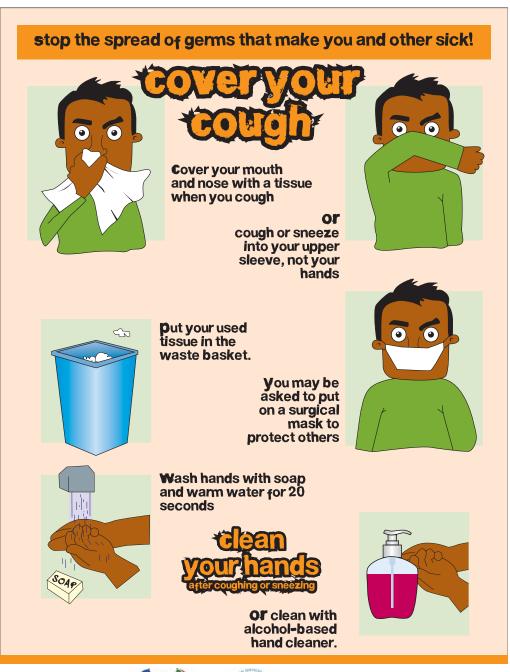
Kinesthetic Learners

Learn through physical activities and through direct involvement . . .

Kinesthetic persons learn best through a hands-on approach, actively exploring the physical world around them. They may find it hard to sit still for long periods and may become distracted by their need for activity and exploration.



Handout 7. Cover Your Cough











Handout 8. SOP 201: TB Infection Control

I. Key Concepts

- The community-based health worker (CHW) has a unique opportunity to help prevent the spread of TB by teaching and monitoring proper implementation of infection control measures practiced in the home during home visits.
- The TB infection control goal is to minimize the risk of TB transmission by detecting patients with TB disease early, isolating them promptly and treating people with TB disease quickly to prevent spread of TB to others.
- Implement TB infection control along with universal or standard precautions.
- Any pulmonary TB (PTB) patient during the first two weeks of treatment is considered infectious; PTB patients may spread TB to others via airborne transmission.
- HIV-infected healthcare workers are at increased risk of TB infection and active disease due to frequent exposures to TB suspects and undiagnosed individuals with TB disease.
- A TB patient is considered noninfectious after
 - having 2–3 consecutive negative sputum smears on 2 different days
 - completing at least two weeks of anti-TB therapy
 - completing a diagnostic evaluation or full TB treatment course
- The reference to "TB" in this and other SOPs refers to the spread of *Mycobacterium tuberculosis*, or TB bacilli, that the recommended TB infection control measures mean to prevent.

II. Key Personnel

- Community health workers (CHWs)
- Nurses
- Patients
- Family members
- Administrative staff

III. Materials

- Paper tissues
- Disposable cloth scraps
- Container with lid
- Face masks (if available)

IV. Procedures

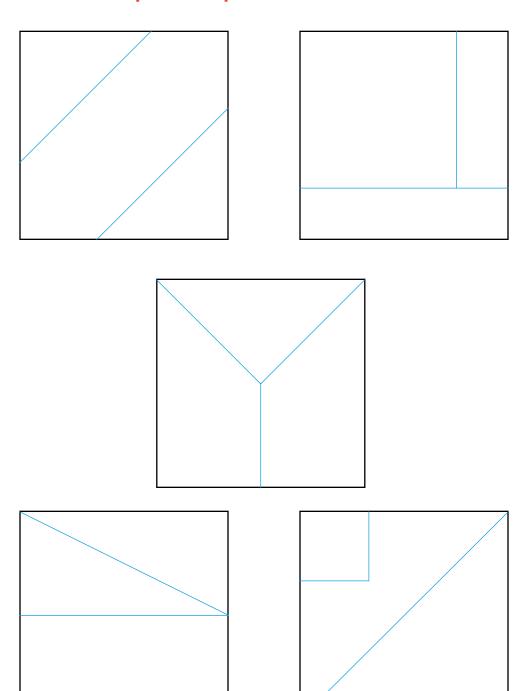
- **A.** Managerial control measures for administrative staff and all CHWs
 - **1.** Develop a TB infection control committee.
 - **2.** Identify a person with expertise in TB infection control to lead the committee at the community-based site.
 - **3.** Carry out a risk assessment to identify risk of TB transmission to people living with HIV at the site.
 - **4.** Develop a TB infection control implementation plan based on findings from the risk assessment. Include clinic management and staff in creating the infection control plan.
 - **5.** Monitor the TB infection control implementation plan.
 - **6.** The lead TB infection control team member regularly supervises and monitors the infection control plan; the TB infection control steering committee meets annually to assess the plan.
 - **7.** Include civil society involvement, behavioral change campaigns, and reinforcement of a positive message for health workers, patients and visitors.
 - **8.** Schedule annual all-staff training about TB, TB infection control and the clinic's TB infection control implementation plan.
- **B.** Administrative control measures for administrative staff and all CHWs
 - **1.** Offer a rapid screening referral mechanism for household members and other (close) contacts.
 - **2.** Encourage proper cough hygiene.
 - **a.** Talk with the household and people diagnosed with active TB disease about adhering to proper cough etiquette.
 - **b.** Ask them to cover their mouth when they cough or sneeze and practice handwashing.
 - **c.** Provide tissues or disposable cloth scraps, and instruct patient to cover their mouth and nose when coughing or sneezing.
 - **3.** Ask infectious MDR TB patients to wear face masks when in contact with susceptible people.
 - **4.** Encourage common hygiene practices.
 - **a.** Ask the patient to not clear their throat and then spit on the ground.
 - **b.** Ask the patient to spit sputum into a tissue, cloth, covered container or toilet to dispose of it.

- **5.** If possible, encourage the TB patient to sleep in a separate area from other family members, especially during the first weeks of TB treatment while the cough is present.
- **6.** Screen CHWs for TB. Periodically screen for cough lasting more than 2 weeks, unexplained weight loss, night sweats, and fever.
- 7. In high-burden HIV settings, offer HIV testing to all CHWs.
 - **a.** Offer staff voluntary, confidential HIV counseling/testing.
 - **b.** If positive, refer for assessment of and preferential access to ART and IPT.
- **8.** Offer HIV-infected CHWs alternative lower-risk settings. If possible, do not assign HIV infected CHWs to work in high-prevalent TB settings.
- **C.** Environmental level of controls Environmental control measures combined with patient practices further reduce TB transmission
 - **1.** Encourage ventilation (either natural or mechanical) in the community and home environment.
 - **a.** Natural ventilation: Keep doors and windows open to the full extent possible.
 - **b.** Mechanical ventilation: A fan may be used to enhance ventilation.
- **D.** Respiratory control measures for CHWs and high-risk household members of MDR TB patients: Use a respirator when providing care to a MDR TB patient.

 $Source: Family Health International. \ Collaborative \ TB/HIV \ services: standard \ operating \ procedures for implementation of \ TB \ activities at \ HIV/AIDS \ service \ delivery \ sites. \ Research \ Triangle \ Park, \ NC: \ Family \ Health \ International; \ 2009.$



Handout 9. Broken Squares Template





Handout 10. Community Work Plan: Objectives and Activities Worksheet

Goal	Objective	Activities	Who will do it?	Indicators of success	Date completed
To increase infection control measures in household and community settings					



Handout 11. Training of Trainers Evaluation

Place an "x" in the box that represents the extent to which you agree or disagree with the following statements:

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
Subject matter was adequately covered.					
Content was suitable for my background and experience.		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Handouts were relevant.		0 0 0 0 0 0 0 0 0			
Participants were encouraged to take an active part during the workshop.		0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0		
The workshop met my individual objectives.		0 0 0 0 0 0 0 0			
There was enough time allocated for the activities.		0 0 0 0 0 0 0 0	0 0 0 0 0 0 0		
The training rooms met the needs of the group.		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Lunches and tea breaks were adequate.		0 0 0 0 0 0 0 0 0			
The organization of the training course was good.					

I. Which topic or subject received too much or too little time?					
2. What did you lik	e most about the	e workshop?			
3. What did you lik	e least about the	e workshop?			

I. What suggestions do you have to improve the workshop?						
5. What i	5. What is your overall evaluation of the workshop? (Circle your answer below.)					
	Poor	Fair	Good	Excellent		



V. References and Resources

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