Effective TB Interviewing for Contact Investigation: Self-Study Modules

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of Tuberculosis Elimination

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Effective TB Interviewing for Contact Investigation:

Self-Study Modules

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Introduction

The TB Interview

The TB interview for contact investigation is one of the most important components of a TB control program. As a result of TB interviews, individuals with latent TB infection, active and future TB cases, and source cases of TB disease can be identified and medically evaluated.

The TB interview is an interaction with an index patient or a person with suspected or confirmed TB disease who is the initial case reported to the health department. The index patient might not be the source case. The interview interaction involves the basic principles of effective communication and mutual information exchange. The goal of the interview is to elicit information on contacts for contact investigation purposes. This process requires practice and a commitment to realizing the interview goal while respecting the patient's need for confidentiality and understanding the importance of his or her role in the contact investigation.

TB interviewing entails a partnership between the index patient and the interviewer. Information is shared and exchanged. The TB interview offers an opportunity for investigators to

- Build trust and rapport with the patient;
- Provide TB education;
- Engage the patient in the contact investigation process;
- Identify contacts; and
- Address the patient's questions and concerns.

Introduction

Format of the Self-Study Modules for Effective TB interviewing

This resource will offer guidance to both new and experienced TB interviewers about how to communicate clearly with patients under various circumstances. The self-study format offers a self-paced framework for healthcare workers to follow to learn how to conduct TB interviews. *Effective TB Interviewing for Contact Investigation: Self-Study Modules* describe the steps and information to be conveyed to the patient during the interview, including what the patient should expect after the interview process is completed.

The modules in this resource include:

Module	Topic
1	The TB Interview for Contact Investigation
2	Basics of Communication and Patient Education
3	Cultural Competency in TB Interviewing
4	Special Interview Circumstances

Each module will begin with a list of learning objectives and will end with review questions. Case presentations are included throughout the modules to illustrate important concepts.

Prerequisite

Prior to reading these materials, it is recommended that one read the Centers for Disease Control and Prevention's (CDC) *Self-Study Modules on Tuberculosis, Modules 1-9*, which provide essential clinical and TB control information. If there is not adequate time to complete this prerequisite, at a minimum, Module 3, *Transmission and Pathogenesis*, Module 6, *Contact Investigation*, and Module 7, *Confidentiality,* should be read. In addition, the *Core Curriculum on Tuberculosis* is also a valuable resource for participants.

Using this Resource

Although this resource is most useful when read in its entirety, Modules 1 and 2 should be read in consecutive order before other modules are read. Modules 3 and 4 may be read independently if each of the individual module's content needs to be referred to or reviewed.

Although this material is presented in a self-study format, a supervisor should review each module's concepts and answer any questions the reader may have. For those without the benefit of a personalized review, the questions at the end of this manual are accompanied by detailed explanations. In addition, a supervisor should also review health department protocols and relevant forms for contact investigation and patient interviewing.

Introduction

Additional TB Interviewing Training and Resources

In addition to reading these self-study materials, viewing the *Effective TB Interviewing for Contact Investigation* videotape and participating in a facilitator-led group training on TB interviewing is highly recommended. The video and facilitator-led training manual are both available from CDC. A list of additional resources is included at the end of these modules.

New interviewers should also supplement their learning by observing experienced colleagues conducting interviews in a variety of settings. Engaging in role-playing scenarios prior to conducting actual patient interviews can also provide an opportunity for reviewing interview techniques and experiencing various interview scenarios.

This resource is not meant to substitute for the learning gained from observation of experienced interviewers and, of course, from conducting actual interviews. However, understanding the fundamental concepts in *Effective TB Interviewing for Contact Investigations: Self-Study Modules* can help the interviewer become successful in the art of TB interviewing.

Module 1. The TB Interview for Contact Investigation

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Objectives

After reading through this module, you will be able to

- Define a TB interview;
- Formulate a TB interview strategy;
- Identify who requires a TB interview and for what reasons;
- Prioritize TB interviews based on various factors;
- Determine an infectious period for contact identification;
- Conduct a TB interview in a logical and productive manner; and
- Conduct a re-interview asking the appropriate follow-up questions.

Introduction

An interview is a formal, individualized exchange of information. The TB interview is an interaction with a patient that involves the basic principles of effective communication and patient education. The objectives of the TB interview are to

- Build trust and rapport with the patient;
- Provide TB education;
- Engage the patient in the contact investigation process;
- Identify priority contacts; and
- Address patients' questions and concerns.

The interview requires skills, commitment to the interview objectives, respect for the patient's need for confidentiality, and understanding of the patient's role in the contact investigation process.

Interview Strategy

To formulate a strategy prior to an interview, the interviewer should

- Understand the purpose of the interview and what should be accomplished;
- Analyze the interview situation by asking:
  - Where will the interview take place?
  - What is the condition (mental and physical state) of the interviewee?
  - Is there already an established relationship with the interviewee?
- Anticipate and prepare to deal with resistance.

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To meet the interview objectives, the interviewer's strategy should include methods for

- Building trust and rapport with the patient;
- Collecting the patient's personal and medical information and asking for verification, clarification, and additional information;
- Determining what information the patient understands and his or her level of comprehension prior to providing education;
- Continuously clarifying information given verbally or messages conveyed through verbal and nonverbal cues;
- Reinforcing the health and medical regimen during discussion; and
- Promoting a dialogue by intermittently allowing time for patient questions.

Completing these tasks does not occur simply by asking standard questions, but by asking questions purposefully and in an understandable and sensitive manner. Module 2, "Basics of Communication and Patient Education," will address the skills of asking questions and assessing patients for a tailored discussion.

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The TB Interview

The TB interview is initiated to identify contacts at risk of exposure to refer for medical evaluation for TB infection or disease. Because of this goal, only certain patients need to be interviewed. These include patients who

- Have been diagnosed with verified TB (excluding most forms of extrapulmonary TB, but including pleural effusion or miliary TB with cough and laryngeal TB);
- Are suspected of having pulmonary, laryngeal, or pleural TB;
- Have been diagnosed with any form of verified TB, abnormal chest x-ray, positive tuberculin skin test which indicates recent TB transmission (for example, a documented converter who has developed disease or a young child).

The TB interview is conducted with individuals who may have put others at risk of contracting TB. In addition, if there is evidence of recent TB transmission, a *source case investigation* may be initiated. Like a contact investigation, this process attempts to locate a patient's contacts, referred to as *associates*. In this case, the associate is viewed as the "source," or the person who transmitted TB infection and not the recipient of TB infection due to prolonged exposure to the index case. For this reason, it is recommended that interviews be conducted with the following groups: parents or guardians of children 2 years of age and younger who have TB infection, and children 4 years of age and younger with TB disease or chest x-ray findings consistent with TB-related abnormalities. Guidelines for interviews for source case investigations are covered in Module 4.

Prioritizing Interviews

Once it has been determined who will be interviewed, priority must be assigned to the interviews. All interviews should be initiated within 72 hours of TB suspect/case report. Follow-up interviews may occur to obtain additional information. A second complete interview or *re-interview* should be done within 2 weeks of initial interview to determine additional information that the patient may not have shared for various reasons and to confirm previously obtained information. The infectiousness of a patient and his or her ability to transmit disease is the main consideration for prioritizing the interview. Infectiousness is determined by

- Site of disease (pulmonary, pleural effusion, miliary TB with cough, or laryngeal TB);
- Presence of cavitary disease;
- Positive acid-fast bacilli (AFB) sputum smear;
- Positive TB culture;
- Presence of cough or hoarseness;
- No treatment, recently started treatment, or inadequate treatment; and
- Length of time of symptoms.

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Source case interviews take lower priority than interviews with infectious cases. However, this may change if the number of skin test conversions or occurrence of new TB cases is high in a particular setting. This will be covered in Module 4. Other considerations, which may also influence priority of interviews, are location of the patient, ability to locate the patient in the field, the patient's history of nonadherence, and number of interviewers available.

Infectious Period

In order to bring focus to the interview process, the *infectious period* must be determined. This period is a time frame in which potential exposure to others may have occurred while the patient was infectious or able to transmit TB. Often, the beginning of the infectious period is when the onset of symptoms occurs, especially coughing. Local or state standards should be used to determine the beginning of the infectious period. Some health department guidelines denote a specified period prior to the patient recollection of the onset of symptoms, particularly coughing.

For the purpose of the contact investigation, the end of the infectious period is determined by the existence of <u>all</u> of the following criteria

- Symptoms, such as frequency and intensity of cough, have improved
- Patient has been receiving adequate treatment for at least 2 weeks
- Patient has shown some evidence of a bacteriological response, such as the reduction of the grade of the AFB sputum smear or negative sputum smears

or

- Exposure to contacts has ended

The infectious period should be stated in the form of start date to end date. The infectious period provides a timeframe for the patient when identifying information on contacts.

The determination of the infectious period is based on several factors and should result from a collection of all relevant information from both the patient and the patient's medical record. The infectious period may exceed 6 months; however, the patient's memory of details beyond that time frame may be unreliable. Regardless, if review of the patient's medical record or other source indicates that the patient has had signs and symptoms of pulmonary or laryngeal TB for more than 6 months, collection of contact and congregate setting information prior to that time should be done. Using a retrospective timeline, the results of contact evaluations will help determine when to stop identifying more contacts. This timeline should start with the date of the interview and work its way back in time.

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A patient will most likely not be able to provide you with exact onset dates for symptoms. Asking the patient to associate symptoms with events may assist. For example, a patient can be asked if he or she remembers coughing around a major event or holiday (e.g., his or her birthday, Christmas).

In a source case investigation for a child, the infectious period generally begins 3 months prior to the date of the interview. The infectious period end date is the interview date. The factors regarding treatment and sputum conversion for ending the infectious period in source case investigations do not apply because most young children, as well as persons with latent TB infection, are not usually infectious.

Use of Respiratory Protection

The infectiousness or potential infectiousness of a patient should be taken into consideration by the interviewer, not only for the purpose of eliciting contacts, but also for assessing the need for respiratory protection. Appropriate respiratory protection should be used when interviewing an infectious or potentially infectious patient. However, the use of respiratory protection may cause difficulty in establishing rapport with a patient, as some patients may be offended. If respiratory protection is used, the interviewer should explain to the patient why its use is necessary. For additional information regarding the infectiousness of patients, please consult the CDC resource, *Self-Study Module on Tuberculosis #5: Infectiousness and Infection Control*.

There are two basic types of respiratory protection that may be utilized during contact investigation:

- *Personal Respirators* – There are a variety of personal respirators available. The most commonly used personal respirator in a healthcare setting is the disposable N-95 respirator. Research has shown that use of a surgical mask is not adequate in capturing all TB bacteria. Some surgical masks fit poorly and, therefore, provide very little protection from any airborne hazards. Personal respirators should be used by the interviewer around an infectious patient. Different varieties of personal respirators are available. Staff should be trained on the appropriate method of wearing respirators and be fit tested according to their institutional policy. A personal respirator should not be worn by a patient, since it may result in increased difficulty in breathing for the patient and is generally more expensive than a surgical mask.
- *Surgical Mask* – These masks should be used by the infectious patient and may prevent *M. tuberculosis* bacteria from spreading. However, surgical masks can be loose fitting and, depending on the proximity of an individual to the patient, may not be an adequate barrier for all *M. tuberculosis* bacilli.

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In situations involving infectious or potentially infectious patients, personal respirators should *always* be worn by interviewers and surgical masks should *only* be worn by patients. There are a number of different factors that affect the use of respiratory protection by the interviewer and patient. Detailed below are several common contact investigation scenarios with infectious patients, and the correct use of respiratory protection for each scenario:

- *Interview in an infectious patient's home* – While many infectious patients are hospitalized, this is not always the case. The patient should be wearing a surgical mask at home if he or she is living with others. In this situation, after entering the home, the interviewer should wear a personal respirator. The interviewer should not put on a respirator outside the patient's home because it may draw attention from outsiders. Even though the patient's mouth and nose are to be covered by a mask at all times, the interviewer cannot assume that the patient is always masked and should take adequate precautions.
- *Interview in an airborne infection isolation (negative pressure) room* (AIIR) *in a hospital* – In this case, the patient is considered infectious. The patient should not be asked to wear a mask in this situation, but should be instructed to cover his or her mouth with disposable tissue while coughing. Any person entering the room should wear a personal respirator (e.g., N-95).
- *Interview in a clinic setting in both AIIR and non-AIIR* – A patient can arrive at a clinic setting and be deemed infectious or potentially infectious based on symptoms, particularly a productive cough. In this case, the patient should be immediately triaged into an isolation room, that is, away from other patients. A surgical mask should be given to the patient for use as he or she proceeds through the clinic, and the patient should be instructed to cover his or her mouth with disposable tissue while coughing.
  - *In an AIIR* – As above, the patient may remove the surgical mask, but the interviewer should wear a personal respirator.
  - *In a non-AIIR* – The patient should wear a surgical mask and the interviewer should wear a personal respirator.

As noted above, the use of a surgical mask or a personal respirator may affect the rapport between interviewer and patient. Explaining the need for protection and acknowledging that surgical masks or respirators may be uncomfortable can help in re-establishing rapport. Out of respect to the infectious patient at home, an interviewer should not put on a respirator prior to entering the home, in sight of neighbors or passers-by. The respirator should be worn upon entering the home. The interviewer can say to the patient, "I hope you don't mind, but I need to wear my respirator while I am here visiting you today." If the patient questions the reasons, particularly if he or she is already wearing a surgical mask, the interviewer can explain, "I am glad that you are wearing your mask. However, it may not prevent all TB germs from spreading. That is why I need to take precautions. If, in a few weeks, you are no longer spreading germs, I will not need to wear this respirator."

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Structure of the Interview

The interview has five components, which are presented in detail in pages 8-17. The components are as follows:

I. Pre-Interview Activities

II. Introduction

III. Information and Education Exchange

IV. Contact Identification

V. Conclusion

At the end of this module is a checklist that summarizes the elements of the interview (page 25). This checklist can be used during the interview as a prompt and after the interview to evaluate whether the interview was complete. Note that some interview elements may vary depending on what information is required by the local health department. Information the interviewer provides to the patient may depend on the job responsibilities of the interviewer, including a combination of medical care, directly observed therapy, and congregate setting investigation.

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I. Pre-Interview Activities

Before conducting the interview, the interviewer should organize and prepare for it by obtaining background information on the patient. This will assist the interviewer in forming a preliminary infectious period and developing an interview strategy.

1. Review medical record – The record may contain information from hospital staff, infection control practitioners, or social workers.
    - Review and note medical record information related to the diagnosis (site of disease, symptom history, bacteriologic and chest x-ray results, treatment, and recent or past known exposure to TB, including skin test results)
    - Review and record social history, language and cultural barriers, and other medical conditions
    - Note previous hospital admissions and any history of previous treatment, substance abuse, mental illness, or inability or unwillingness to communicate with other healthcare staff who may have interacted with the patient
    - Assess the need for respiratory protection during the interview for both the interviewer and patient
    - Obtain and record index patient locating information:
        - Record name, address, telephone number, and additional locating information
        - Collect and record next of kin, emergency contact, employer
2. Establish a preliminary infectious period based on medical record review and local health department guidelines. This will be refined during the interview based on the patient's verification of information.
3. Develop a strategy for the interview process by analyzing information collected thus far. This should include looking for any unusual factors about the patient that will need to be considered, such as any other medical conditions, mental status, housing or money, transport, and social support needs.
4. If possible, arrange an interview place and time convenient to the patient and satisfactory to the local health department time frame for the completion of interviews.
5. Arrange and ensure privacy by seeking an interview time and place with minimal distractions and interruptions. Note: When a patient is hospitalized, the initial interview should take place in this setting.

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II. Introduction

As discussed later in Module 2, "Basics of Communication and Patient Education," the very first interaction with the patient can influence the remainder of the interview. It is important from the beginning for the interviewer to provide an explanation of who he or she is and present a clear picture of the importance of the TB interview.

1. Begin by building trust and rapport, as well as demonstrating respect. Introduce yourself and provide a business card or identification. If appropriate, shake the patient's hand. Greet the patient using Mr./Ms. and family name and then ask the patient what he or she would prefer to be called. Explain your role in the tuberculosis control program. This includes your responsibility to protect the health of the public.

2. Explain that the purposes of the interview are

   - To provide TB information and answer any patient questions, and
   - To identify people who have been exposed to TB so that they can be referred for medical evaluation.

3. Emphasize confidentiality, yet inform the patient that relevant information may need to be shared with other health department staff or other people who may assist in congregate settings to most efficiently ascertain which contacts need to be evaluated. Also, note local laws regarding confidentiality when interviewing minors.

III. Information and Education Exchange

As the interview progresses, the interviewer should educate the patient on TB and the contact investigation process. As this occurs, the interviewer should continuously assess whether the patient understands the information being exchanged and appears invested in the interview process.

1. Throughout the interview, determine the extent of trust and rapport being developed while observing the patient and assessing responses.

2. Observe the patient's body language and speech for comfort level and comprehension of information provided.

   - Make note of any physical signs or behavior indicative of alcohol or substance abuse, nutritional status, lifestyle, and other conditions which may influence the patient's level of cooperation
   - Assess the patient's communication skills, attitudes, concerns, and needs. As necessary, refine the interview strategy. This may include accomplishing less during the initial interview session and scheduling a follow-up interview

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3. Personal information – Explain that it is important to obtain and confirm the patient's personal information. The following patient information should be collected and verified:[1]
   - Full name
   - Alias(es)/nickname(s)
   - Date of birth
   - Place of birth (city, state/province, country)
   - If born in a foreign country, date arrived in USA
   - Travel destinations (when last there and for how long)
   - Physical description (height, weight, race, other identifying characteristics)
   - Current address and post office (PO) box or place of residence, including directions, if necessary
   - Telephone number
   - Length of stay at current address
   - Marital status
   - Next of kin (name, address, telephone number, other locating information)
   - Emergency contact (name, address, telephone number, other locating information)
   - Employer or school (name, address, telephone number, other locating information)
4. Medical information and problem indicators
   - Explain the importance of collecting accurate medical information
   - Obtain and document the following patient information:
     - Known exposure to TB (who, where, when) or knowledge of anyone with similar symptoms
     - Past hospitalization(s) for TB (name, admission and discharge date[s])
     - Other medical conditions, including HIV test results, if available
     - Substance abuse (including frequency, type, how long)
     - Medical provider for TB (private or clinic, name, address, telephone)
     - Transportation availability to/from medical provider
     - Directly observed therapy (DOT) plan, if known (where, when, by whom)
     - Barriers to adherence

[1] This information may vary by individual health department requirements.

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- Disease comprehension
  - Use open-ended questions to determine the patient's TB knowledge
  - Reinforce the patient's TB knowledge and correct any misconceptions. Explain mode of transmission and how TB affects the body, using language the patient can understand. Avoid using medical terms and recognize when to defer questions to appropriate personnel (see Module 2, "Basics of Communication and Patient Education"). Provide appropriate patient education materials.
- Symptom history – Review with the patient the following TB-related symptoms, including onset dates and duration:
  - Cough
  - Hemoptysis (coughing up blood)
  - Hoarseness or laryngitis
  - Unexplained weight loss
  - Night sweats
  - Chest pain
  - Loss of appetite
  - Fever
  - Chills
  - Fatigue

    Recall of symptom onset can generally be poor. Mentioning prominent dates and major holidays can help the patient recall symptom onset. Cough, if present, is the most critical symptom in determining the infectious period.
- Discuss the elements of patient's current diagnosis, including
  - Tuberculin skin test results
  - Site of disease
  - Symptom history
  - Chest x-ray and bacteriologic results

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5. Disease intervention behaviors – Explain the importance of the following interventions:
   - Treatment regimen
     - Explain that the patient's medications kill TB germs when taken as prescribed. Reinforce the personal and public health benefits of taking the medicine.
     - If trained to do so, identify and explain each prescribed drug and discuss potential side effects.
     - Establish a specific schedule or reinforce existing schedule for outpatient treatment, including DOT.
     - Review the local/state regulations mandating treatment adherence (if applicable).
   - Infection control measures
     - If the patient is infectious, review the importance of cough hygiene, e.g., using a mask or a tissue to cover the mouth and nose if coughing and sneezing. Explain proper disposal technique. Emphasize that covering the mouth and nose is an important measure the patient can take to protect others.
     - Discuss the importance of adequate ventilation to protect others.
     - Describe other measures as appropriate, i.e., home isolation, visitors to the home, and return to work or school.
   - Maintaining medical care – Discuss the importance of
     - Adherence to therapy while reemphasizing the significance of continuity of therapy;
     - Sputum collection, chest x-rays, and physician evaluations;
     - Adherence to all medical appointments and DOT, if ordered; and
     - Adherence-enhancing strategies, e.g., available incentives, pill boxes, and reminder notes.
6. Infectious period
   - Based on the information collected thus far, refine previously established infectious period.
   - Review significance of infectious period with patient and discuss its role in contact identification.

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IV. Contact Identification

While a brief explanation of a contact investigation should be provided at the beginning of the interview, a reemphasis prior to the elicitation of contacts is necessary. This reassures the patient of the importance of providing contacts' names. It is also important at this time to reinforce confidentiality and to educate the patient on TB transmission.

- Introduce the contact identification process by reviewing the patient's understanding of TB transmission. Stress the importance and urgency of the rapid and accurate identification of all priority contacts during the infectious period. Reinforce the importance of identifying contacts in order to protect family and friends from getting TB.
- Explain the difference between priority and nonpriority contacts. This should include a discussion of how TB is spread. It should be emphasized that transmission increases with duration and frequency of exposure and with exposure in closed spaces. These concepts should be explored with each named contact.
- Inform the patient that a congregate-setting investigation may be done in any place in which the patient reveals having spent prolonged time during the infectious period. The patient should be made aware that an appropriate site manager (e.g., supervisor, school principal) may be called in to assist in identifying persons in this setting, but that an emphasis on confidentiality will be maintained. With other medical conditions, the patient's illness and identity are held in strict confidence. For an infectious disease such as TB, working with a third party in a congregate setting may be appropriate. The patient should know that if he or she chooses to tell others about his or her illness, or if others already know about the diagnosis, the health department will continue to maintain confidentiality and not reveal or confirm any patient information.
- Collect information about the patient's contacts in the household/residence, workplace/school, other congregate settings, and social/recreational environments. If the patient's responses contain conflicting information, ask about these inconsistencies in a nonconfrontational manner. Be aware that patients are being asked to recall detailed information over an extended period of time and may not remember information very clearly. Some patients, however, may intentionally provide vague or inconsistent information. In this case, the interviewer should re-emphasize the importance of contact identification and confidentiality (see Module 4 for additional strategies).

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Contact tracing information – Obtain the following information as relevant to the patient's infectious period (some information will require a field visit for confirmation):

- Type of housing (e.g., house, apartment, shelter, nursing home)
- Description of housing, including size of rooms, ceiling height (low or high), number of rooms, method of ventilation, and source of heating and cooling
- Additional addresses where patient spent time
- If employed: employer name, address, telephone number, full or part-time, hours per day/week, how long employed, transportation type to/from work, length of commute, occupation/type of work, indoor or outdoor work space, and enclosed or open work space
- If unemployed: source of income
- If attending school: name of school, address, telephone number, grade/year, hours per day/week, transportation type to and from school, and length of commute
- Social and recreational activities (e.g., hangouts, bars, team sports, community centers, band, choir, place of worship), including hours per day/week, and means of transportation
- Other congregate settings (e.g., armed services, hospital, nursing home, drug treatment center, detoxification center, shelter, group-living home, hotel, prison or jail), including name and dates of attendance
- Travel history (where, with whom, mode of transportation, person visited)

Eliciting Contacts

Contacts' information should include locating and physical identifying details. Explain to the patient that the reason for collecting detailed information on each contact is to be able to locate these individuals as easily and quickly as possible and not to mistake them for others. Information should be gathered in three spheres:

- Household or living situation
- Workplace or school
- Social and recreational

The patient may not be able to provide full names or any names for some contacts, so the investigator who must locate the contacts in the field may need to rely on nicknames or physical descriptions, or both. Note that the patient may not be able to supply all of the details listed below and that the interviewer should decide how much information is needed based on what has already been collected.

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Obtain the following information for activities occurring within the patient's infectious period about all persons in each sphere. Information should include name/alias(es)/nickname(s), relationship to patient, age, sex, physical description, employer/school, and other locating information (include current address if no longer living in the household). Also, include hours of exposure per week and date(s) of first and last exposure. Include, with identified contacts, persons regularly socialized with and social/recreational establishments, including

- Close friends
- Sex partners
- Overnight guests and regular visitors to patient's residence (e.g., neighbors, friends, and relatives)
- Persons with whom drugs are used
- Overnight visits to any other location(s) (obtain address[es])
- Specifically ask about time spent with young children or immunocompromised individuals

- Congregate setting assessment
  - Ask for a description of identified congregate settings, including size of rooms, ceiling height (low or high), number of rooms, method of ventilation, source of heating and cooling.
  - Inform the patient that it will be necessary to make site visits to the home, workplace or school, and leisure establishments to assess the shared air environment to accurately structure the contact investigation.
  - Stress patient confidentiality as well as the necessity of sharing information on a need-to-know basis with appropriate site management. Discuss the importance of a medical evaluation for each contact.

- Methods of referral
  - Inform the patient that referrals and verified contacts' medical evaluations should be carried out immediately
  - Explain contact referral options (options may vary by state):
    Patient should be given a choice of whether to inform contacts of their risk of exposure prior to the health department referral process. Discuss the referral options with the patient, deciding which contacts are appropriate for health department referral and for patient referral. Review with the patient how and when contact referrals will be made and where the contacts will be referred.

    Health Department Referral: While protecting the patient's right to privacy, the healthcare worker assumes full responsibility for locating and informing the contact about exposure and the need for a medical evaluation.

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Patient Referral: The patient agrees to inform the contacts about exposure and the importance of speaking with the healthcare worker regarding the need for a medical evaluation. Remind the patient that this method will not protect his or her confidentiality. If necessary, rehearse with the patient how to inform contacts and what instructions they should be given regarding their medical evaluations. Inform the patient that the health department will follow up on anyone who does not respond within an agreed upon timeframe.

Explain that the index patient's identity will be held in confidence during the investigation, and the same is true for all contacts' confidentiality. The health department cannot reveal the results of medical evaluations (e.g., how many people are tuberculin positive, how many people have TB disease, who has been started on treatment) of contacts to the index patient, other contacts, or staff of congregate settings.

– Discuss re-interview time frame:
Explain that you will be visiting the patient again upon discharge from hospital, or within 10-14 days if the initial interview is at home, to obtain further information and answer additional questions.

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V. Conclusion

Conclude the interview in a positive manner. Recognize the index patient's participation in the interview, and make the patient feel that you are trustworthy and can be consulted with concerns as they arise, even after the interview.

- Request and answer the patient's questions.
- Review and reinforce all components of the treatment plan.
- Evaluate the patient's remaining needs or potential adherence problems.
- Restate the date of the next medical appointment, if known.
- Arrange for both a re-interview and home visit, if not already completed.
- Reinforce the procedures for referral of each contact.
- Provide information on how the patient can contact you.
- If appropriate, shake the patient's hand, express thanks and appreciation, and close the interview.

While it is important for the interviewer to follow a systematic process to achieve the interview objectives, it is also important for the interviewer to demonstrate flexibility and respond to the patient's needs. The patient may have questions, show signs of fatigue, or need assistance in some way, which may lead to a deviation from the interview agenda. Addressing these needs through recognition of concerns, problem solving, and referral to appropriate resources may be a minor set-back, but can eventually allow the interview to progress. For strategies on dealing with patient needs, see Module 4, "Special Circumstances."

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Re-interviewing

It is possible that not all information will be collected in the first interview with the patient. **Even if the interviewer conducts a comprehensive first interview, a second interview should be completed.** A second interview will allow the patient to recall any further information that may assist in the contact investigation and may facilitate additional questions for the interviewer. If the first interview was conducted in the hospital or health department, the second interview should be done in the patient's living space, such as a home, apartment, shelter, or correctional facility. Observations made in a patient's living space can provide additional information about contacts, as well as identify or confirm any environmental information that can aid in decisions about transmission and testing. The patient may also feel more comfortable participating in an interview in a familiar environment, and may provide information more readily. In between interviews, the interviewer should ask the patient to make notes of questions, concerns, additional contacts, and other topics to be addressed at the time of the re-interview. In addition, the interviewer's contact information should be provided to the patient so that the patient can contact the interviewer with any additional information or questions.

Before a re-interview, do the following:

- Review original interview documentation
- Identify gaps in first interview that need clarification
- Review infectious period to ensure all time is accounted for in collected information from the patient
- Formulate a strategy as was done for the first interview
- Clarify known contact information to plan additional questions.

Assessing for Additional Contacts and Risk of Transmission

While conducting a re-interview, the interviewer can evaluate environmental characteristics of the place in which exposure occurred, and may be able to obtain additional information about identified contacts, as well as identify additional contacts.

During a re-interview, the interviewer should

- Continue building trust and rapport;
- Provide additional TB education, as needed;
- Observe environmental characteristics such as room size, crowding, and ventilation, to estimate the risk of TB transmission;
- Identify additional contacts, especially children and immunocompromised persons; collect their locating and identifying information, such as phone numbers, addresses, and physical descriptions;

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- Look for evidence of other contacts who may not be present at the time of the visit. Evidence may include photographs, toys, extra jackets, and shoes. In addition, take notice of trophies or plaques, as well as other items that may suggest outside leisure activities in which the index patient participates;
- Verify previously identified contact information by observing characteristics of who is present;
- Follow up on contact referrals already made; and
- Discuss any problems with locating previously identified contacts.

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Summary

This module covered the components of the TB interview for contact investigation. It stated the objectives of the interview, the first and most important of which is contact identification. Additional points included

- Explanation of the interview as an individualized exchange of information;
- Importance of formulating a strategy prior to conducting an interview;
- Identifying who should be interviewed;
- Determining an infectious period as a framework for the index patient in identifying contacts;
- Determining circumstances under which to use respiratory protection with an infectious index patient;
- The elements of the interview process, including:
  - Pre-interview activities
  - Introduction
  - Information and education exchange
  - Contact identification
  - Conclusion; and
- Utilizing the re-interview process to confirm information and obtain additional information.

The TB interview process can be challenging, even for the most experienced interviewer. The interviewer should be prepared to complete the objectives, but should anticipate a number of circumstances that can hinder this process. The patient should receive education, and an emphasis should be placed on confidentiality at the beginning of the interview, during the contact elicitation process, and as needed. Careful planning and ongoing assessment during the interview process can ease any challenges.

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Case Presentations

The following case presentations apply concepts from this module. You may review them with your supervisor if you have questions.

Case 1

Part 1 – Melvin is a 38-year-old man who needs to be interviewed in the hospital. He was admitted 2 days ago with a diagnosis of pulmonary TB and is highly infectious. You walk into the room, wearing appropriate respiratory protection, to meet Melvin. He is awake but looks very tired and is coughing frequently. You introduce yourself and he acknowledges your presence. When you offer your hand, Melvin shakes it weakly.

Under circumstances like this, should you start the interview process? Why or why not? If so, what information should you include in your introduction?

Explanation: The patient may not be able to fully complete the interview process due to his physical condition. However, since it is required that you initiate the TB interview within 3 days of the report of a TB suspect, you should

- Introduce yourself as a representative of the TB control program or health department
- State that you are there to answer any of the patient's questions and concerns and find out to whom he may have transmitted TB
- Explain that the reason you are wearing respiratory protection is that he is infectious and that this will not be necessary once his symptoms improve and he starts to feel better

Part 2 – You introduce yourself to Melvin and acknowledge that he is not feeling well, and you will try to make this process as comfortable for him as you can. Melvin states that it is all right to speak with him. So, you proceed with the interviewing process.

Melvin coughs throughout the interview. What should you do while this occurs?

Explanation: See if Melvin is covering his mouth while coughing. This is a good time to provide education about infection control. If the patient covers his mouth as he coughs, provide positive feedback by saying, "*Thanks for covering your mouth while coughing. Even though this is a hospital room, it is good to get into the habit of covering your mouth. That's a good way to prevent the spread of TB.*" If Melvin does not cover his mouth, gently remind him, "I understand that you don't feel very well, but it is a good idea to get into the habit of covering your mouth when you cough. This is the best way to prevent spreading TB germs to others." While Melvin coughs, wait before proceeding with any discussion or questions. You should also ask if he needs anything to make him feel more comfortable, such as a glass of water.

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Part 3 – You and Melvin are having a productive discussion. While you are eliciting contacts' names, he begins to lose eye contact with you. He seems to be nodding his head but does not say much.

What may Melvin's behavior indicate? What should you do?

Explanation: Melvin may be becoming tired and his interest in the interview could be dwindling. You should ask open-ended questions, which require more than one-word answers to determine how much Melvin can answer. If he continues to not say much or responds to questions inappropriately, you should address this possible fatigue and lack of interest. Ask, "You seem to be getting tired. Is it all right if we continue, or shall we try again tomorrow?" If he states that he cannot continue the interview, determine a time to come back and continue the following day.

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Case 2

Part 1 – Jane is a 35-year-old woman who has been hospitalized with pulmonary TB. You conducted a TB interview during her stay. During the interview, Jane mentioned that she lives with her husband and 13-year-old daughter. She also told you about her workplace and social contacts. At the end of her interview, you told Jane that you would visit her at home after her discharge to talk with her further. Jane has asked you why you need to talk with her again, because she feels she has given you adequate information.

How should you explain to Jane the importance of a re-interview?

Explanation: Explain to Jane, *"Sometimes patients may remember other information after leaving the hospital. That is why it is routine to interview a patient at home after discharge."* You can also tell her, *"It will help me to see your home to decide further steps to take in testing your contacts."* This can include confirming the details of her home's environment. Jane can also be told that you can answer any additional questions while you are there.

Part 2 – Jane was discharged 2 weeks later. You go to her home to conduct a re-interview.

What should you look for in the home upon entry and while you are inside regarding additional contacts and formulating a testing plan?

Explanation: When you walk into the home, you should be aware of anything that may indicate the presence of the people who live there. Begin by looking at the type and number of personal items around the house. For instance, this may include the type and number of shoes, coats, pictures, trophies, and plaques. You may find evidence that additional people are present or visit the home. Regarding the testing plan, your health department resources and standards of practice may influence the plan for evaluating household contacts.

Part 3 – As you walk into the home, you notice a pair of shoes that seem to be too small for any of the household members. Inside the house, you see a picture on the fireplace mantle of a woman and a small child. You also see a teddy bear.

Since you suspect there may be other unnamed contacts, how do you ask Jane about other people?

Explanation: You should proceed with the re-interview process as you would in any other situation. Ask Jane about any information she might have forgotten to give you, including people who spent time at her house during her infectious period. If she does not mention anything about a child, you can start by talking about the picture by saying, *"By the way, I*

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noticed the picture on the mantle. Who is the child in the picture?" Once the child's identity has been established, you can ask, *"Oh, that's your sister's child? Are you lucky enough to see her often?"* If the line of questioning does not yield helpful information, you should be more direct. Simply ask about the shoes by saying, *"I also noticed a pair of small child's shoes in the front and was wondering if they belong to a child who comes to visit frequently. It is important that we know, since children can become seriously ill if infected with TB."*

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TB Interview Checklist

✓ **Pre-Interview Activities**

- Review medical record
- Establish preliminary infectious period
- Develop an interview strategy
- Arrange interview time and place

✓ **Introduction**

- Introduce self
  - Provide identification
  - Explain role in TB control
  - Build trust and rapport
- Explain purpose of interview
- Ensure confidentiality

✓ **Information and Education Exchange**

- Observe patient's physical and mental state and evaluate communication skills
- Collect and confirm the following information:
  - Name
  - Alias(es) or nickname(s)
  - Date of birth
  - Address
  - Telephone number
  - Next of kin
  - Other locating information
  - Physical description
  - Known exposure to TB
  - Recent hospitalization(s) for TB
  - Medical provider for TB
  - Transportation availability
  - Other medical conditions
  - Outpatient/DOT plan
  - Barriers to adherence
- Assess TB disease comprehension and provide TB education
- Obtain and confirm TB symptom history
- Discuss basis of patient's current diagnosis
- Discuss disease intervention behaviors (treatment, infection control, medical appointments)
- Refine infectious period and review significance with patient

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✓ **Contact Identification**

- Focus on infectious period
- Explain priority and casual exposure
- Stress importance of identification of all priority contacts
- Collect information on patient's contacts in the household/residence, workplace, school, other congregate settings, and social/recreational environments during the infectious period, including
  - Name
  - Alias(es) or nickname(s)
  - Age, race, sex
  - Address/telephone number
  - Other locating information
  - Physical description
  - Hours of exposure per week
  - Dates of first and last exposure
- Discuss site visits and the sharing of information on a need-to-know basis; reinforce confidentiality
- Discuss patient vs. health department referrals

✓ **Conclusion**

- Request and answer patient's questions
- Review and reinforce adherence plan
- Restate next appointment (if known)
- Arrange re-interview and home visit (if not already completed)
- Leave name and telephone number
- Thank patient and close interview

Module 1. The TB Interview for Contact Investigation

Review Questions

Complete these questions to review important concepts from this module. The answers are on page 29.

1. What must be in place for a communication process to be considered an interview?
   a. Two-way communication
   b. Objectives
   c. A strategy
   d. All of the above

2. In order to develop an interview strategy prior to conducting the TB interview, what or whom should the interviewer consult for information first?
   a. Co-workers
   b. Supervisor
   c. Medical record
   d. A nurse

3. Identify which type of patient requires a TB interview, based on infectiousness:
   a. Patient with lymphatic TB
   b. Patient with pulmonary TB
   c. Patient with latent TB infection
   d. Patient with old, healed TB as revealed by chest x-ray findings

4. Prioritize the interviews of the following five patients by number, 1 being the highest priority. Use '0' if you would not interview the patient.
   ___ 4-year-old, with latent TB infection and no TB disease
   ___ 45-year-old, cavitary disease
   ___ 45-year-old, non-cavitary disease
   ___ 60-year-old, with abnormal chest X-ray, but findings not consistent with active disease
   ___ 30-year-old, with lymphatic TB, no pulmonary involvement

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5. When eliciting contacts, how far back should you ask the index patient to recall?
   a. 6 months
   b. 3 months
   c. The designated time of the infectious period based on local or state standards
   d. When medications were initiated

6. What factor(s) should be in place in order to end the infectious period (circle one answer)?
   a. Symptoms have improved
   b. Patient has been receiving adequate treatment for at least 2 weeks
   c. Patient has had improvement on sputum smears
   d. Only a and c
   e. Must have all three factors (a, b, c)

7. Under what circumstances may the interviewer reveal the index patient's identity during a contact investigation?
   a. To congregate setting management during a congregate setting investigation when written consent is given by the patient
   b. To congregate setting management during a congregate setting investigation when written consent is not given by the patient, but revealing the patient's identity is critical to conducting a quality public health investigation
   c. When interviewing a proxy
   d. All of the above.

8. In what three environmental settings should the index patient be asked about priority contacts?
   1._____
   2._____
   3._____

9. Which of the following is true of re-interviews?
   a. They should always be conducted even if the initial interview was completed
   b. They do not need to be done if the patient completes the first interview
   c. They do not need to be done if the first interview was in the index patient's home
   d. None of the above

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Review Questions Answer Key

Answers are in bold.

1. What must be in place for a communication process to be considered an interview?
   a. Two-way communication
   b. Objectives
   c. A strategy
   d. All of the above

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4. Prioritize the interviews of the following five patients by number, 1 being the highest. Use '0' if you would not interview the patient. (ND: check this)
   3 4-year-old, with latent TB infection and no TB disease
   1 45-year-old, cavitary disease
   2 45-year-old, non-cavitary disease
   0 60-year-old, with abnormal chest X-ray, but findings not consistent with active disease
   0 30-year-old, with lymphatic TB, no pulmonary involvement

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5. When eliciting contacts, how far back should you ask the index patient to recall?
   a. 6 months
   b. 3 months
   c. The designated time of the infectious period based on local and state standards
   d. Back to when medications were started

6. What factor(s) should be in place in order to end the infectious period (circle one answer)?
   a. Symptoms have improved
   b. Patient has been receiving adequate treatment for at least 2 weeks
   c. Patient has had improvement on sputum smears
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   a. To congregate setting management during a congregate setting investigation when written consent is given by the patient
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   c. When interviewing a proxy
   d. All of the above.

8. In what three environmental settings should the index patient be asked about priority contacts?
   a. household or residential
   b. workplace or school
   c. social and recreational

9. Which of the following is true of re-interviews?
   a. They should always be conducted even if the initial interview was completed
   b. They do not need to be done if the patient completes the first interview
   c. They do not need to be done if the first interview was in the index patient's home
   d. None of the above

Module 1. The TB Interview for Contact Investigation

Glossary

Contacts – persons exposed to *M. tuberculosis* organism by sharing air space with a person with infectious TB disease. Contacts can include family members, roommates or housemates, friends, coworkers, classmates, and others classified as priority or nonpriority.

Exposure to TB – time spent with or near someone who has infectious TB disease.

Health department referral – the process of a public healthcare worker informing contacts to an index case of the need for medical evaluation due to exposure.

Index patient – a person suspected or confirmed TB disease is the initial case reported to the health department.

Infectious period – the time frame during which a person with TB disease is capable of spreading *M. tuberculosis.* The beginning of the infectious period is usually estimated by determining the date of onset of the patient's symptoms (especially coughing); it ends when contact with others is broken, smears improve, treatment is adequate, and symptoms have improved.

Latent TB infection (LTBI) – also referred to as TB infection. Persons with latent TB infection carry the organisms that cause TB but do not have TB disease, are without symptoms, and are not infectious. Such persons usually have a positive reaction to the tuberculin skin test or a positive QuantiFERON®-TB Gold test result.

Mantoux tuberculin skin test – a test used to determine if a person has been infected with *M. tuberculosis*. Tuberculin, a substance derived from dead tubercle bacilli, is injected under the skin. If the person has TB infection, the immune system will recognize the tuberculin and, in most cases, form a reaction.

Patient referral – the process by which an index patient informs his or her contacts of TB exposure and the need for medical evaluation.

QuantiFERON®-TB Gold test (QFT) - a blood test used to detect TB infection. It measures a person's immune reactivity to *M. tuberculosis*.

Re-interview – a second interview within 2 weeks of the initial interview to determine additional information which the patient may not have shared for various reasons and to confirm previously obtained information.

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Source case investigation – the process of conducting a public health investigation to determine who may have transmitted *M. tuberculosis* to a patient when recent transmission is reported. Source case investigations can be applied to both recent transmission in infected adults and children and for disease in very young children.

TB interview – an interview of a TB patient by a health department staff to identify priority contacts, build trust with the patient, and provide TB education. Interactions with a patient involve the basic principles of effective communication and patient education.

Module 2. Basics of Communication and Patient Education

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Module 2. Basics of Communication and Patient Education

Objectives

After reading through this module, you will be able to

- Explain why patient education is important in the TB interview process;
- Define communication;
- Identify verbal and nonverbal patient cues and their meanings;
- Use closed, open-ended, and focused questions to gather descriptive, yet targeted information;
- Utilize the techniques of reflection, paraphrasing, and summarizing to affect the course of the interview;
- Address and overcome communication barriers;
- Select, and communicate through, an appropriate interpreter; and
- Apply effective communication concepts to patient education.

Introduction

In order to accomplish the objectives of the TB interview, the interviewer must provide accurate and tailored patient education and utilize effective communication skills. These skills, from the outset, will help provide the foundation of what will be an important relationship. Ultimately, gaining trust, building rapport, and providing patient education will lead to the important TB interview objective of contact identification.

Module 2. Basics of Communication and Patient Education

Patient Education

A well-informed patient is more likely to cooperate if the patient understands that it is important to identify priority contacts so that those individuals may be medically evaluated and prevent the spread of TB. The patient may also have additional questions about the TB diagnosis and treatment. Thus, it is important that *patient education* be continued throughout the TB interview process.

The Importance of Patient Education

Often, patient education is overlooked for various reasons including time constraints, communication barriers, cultural differences, poor rapport with the patient, and the interviewer's discomfort with certain topics. However, ensuring patient understanding is extremely important and is a vital part of the TB interview for the following reasons:

- The patient who understands his or her illness is more likely to be invested in his or her treatment
- The patient-interviewer relationship becomes more trusting as information is shared and made specific to the patient's level of understanding
- An educated patient may feel more involved and accountable for his or her health care decisions
- The patient becomes part of the health department team when the patient understands the investigation processes and the reasons they are occurring

The following principles of learning help summarize the methods for an effective patient education process:

- Information provided must be relevant to the patient's existing knowledge, condition, and life circumstances
- Educational techniques must be individualized
- The interviewer must constantly look for feedback through verbal and nonverbal language to gauge the patient's understanding
- Messages should always be reinforced through active listening techniques
- Education should be provided through multiple methods (e.g., discussion, print materials) to reinforce messages

Module 2. Basics of Communication and Patient Education

Patient Education During the TB Interview

The main objective of the TB interview is to identify the correct priority contacts as quickly as possible. This can be done more easily if patient education covers the following points:

- How TB is transmitted
- The difference between TB infection and disease
- TB disease can be prevented by treating those with latent TB infection
- TB is curable
- The importance and purpose of contact investigation
- Contacts are at great risk for infection and disease
- Potential consequences of not initiating TB treatment
- The patient could have been prevented from getting TB if the person who infected him/her had given his or her name as a contact
- Contacts will not be told by the health department who identified them
- Confidentiality will be maintained by the interviewer and the health department
- A public health worker will be available to the patient to address any questions or concerns throughout the contact investigation process
- Role, responsibility, and authority of the health department to protect the public's health

Patient education is best provided through effective communication techniques, which take into consideration how to best convey messages to the patient and receive feedback on how these messages are understood. Interviewers should continually encourage the patient to express any concerns and ask questions. This enhances the interviewer-patient partnership.

Effective Communication

Communication is the exchange of information by words, symbols, signs, or actions. It is an interactive process, which involves feedback. Communication revolves around asking questions, listening actively, understanding a patient's concerns or needs, and demonstrating a caring attitude, while helping to solve problems. Communication begins when the interviewer first sees the patient, addresses the patient by name, and sits down to talk. Effective communication continues as the healthcare worker makes eye contact, speaks in a respectful tone of voice, and encourages the patient to ask questions.

Module 2. Basics of Communication and Patient Education

Information Sharing

When two individuals communicate, there is a sharing of ideas, beliefs, values, goals, sincerity, and level of trust. These characteristics can be conveyed verbally, nonverbally, or both. All verbal and nonverbal cues provide vital information between the interacting individuals. For the purposes of TB interviewing, understanding and utilizing communication skills will assist in establishing trust and rapport with the patient. Both the interviewer's and the patient's styles of communication can set the groundwork for the success of the interview process.

Table 1 summarizes communication skills described in this module. The left side of the table lists each communication skill. The right side of the table shows the purpose of each skill in the context of health education about TB.

Table 1. Summary of Effective Communication Skills

Communication Skill	Purpose
• Ask questions and listen • Encourage the patient to ask questions	Understand the patient's history Understand the patient's current knowledge about TB Identify and help solve any problems the patient may be facing
• Make the interaction with the patient a positive experience • Assess and display appropriate verbal and nonverbal language	Motivate the patient by emphasizing his or her important role in the interview process Emphasize that a healthcare worker is a partner in working through the contact investigation process with the patient
• Use the appropriate language level • Limit the amount of information • Summarize the information being provided • Repeat important information, as needed • Ask additional probing questions and listen	Ensure that the patient understands and remembers the TB education and contact investigation information Obtain relevant contact investigation information

The communication skills highlighted in Table 1 are discussed in further detail in this module.

Module 2. Basics of Communication and Patient Education

Make interactions with the patient a positive experience.

How the interviewer expresses himself or herself is as important as the content of the messages. The interviewer should make the patient interaction a positive experience by providing encouragement and support. By demonstrating a caring and respectful attitude, the patient may be more likely to provide the necessary information and not hesitate to ask questions. A caring attitude is demonstrated through the interviewer's actions, words, body language, tone of voice, and eye contact.

When an interviewer interacts with a patient, the interviewer should address the patient by name and respect the patient's time by attending to the patient as soon as possible. The interviewer should not appear judgmental about the patient's lifestyle, beliefs, and behaviors. Such judgments might be conveyed through nonverbal body language. Judgment-laden communication can negatively impact the interviewer's relationship with the patient and possibly compromise interview goals. The interviewer should also acknowledge the patient's competing issues and priorities by demonstrating empathy.

The TB interview process involves asking questions about whom a patient has spent time with and where this time was spent. It also is based on the fact that the patient may have spread TB infection to others. In order to motivate a patient's participation in the interview process, the interviewer should acknowledge and thank the patient for providing information despite its personal nature and the fact that the patient may be quite ill.

Use the appropriate verbal and written language.

Using words that are familiar to patients can make information relevant and understandable. Prior to imparting any education, the interviewer should be aware of the patient's level of TB knowledge. Some patients may readily ask questions, which may provide some indication of the patient TB knowledge. Others may require probes from the interviewer such as

- "Tell me what you know about TB."
- "What did they tell you in the hospital about this interview?"
- "What do you know about how TB is spread?"

Evaluation of the patient's knowledge and understanding is a continual process, since the patient may not understand all aspects of the information exchanged throughout the interview. It is the interviewer's responsibility to look for verbal and nonverbal patient cues to see how well the information being shared is processed or if the patient is hesitating to ask questions. The interviewer should look for any signs in the patient's body language that may suggest confusion (see Table 2).

Module 2. Basics of Communication and Patient Education

The language used to deliver information is very important. Medical jargon should be avoided in most cases, but if it is used, it must be followed by an explanation. Simple, nonmedical terms should be used in explanations to the patient. For example, when explaining TB transmission, it is much more helpful to say, "The TB germs are spread through the air," than "TB bacilli are transmitted via an airborne route." The interviewer should also be aware that TB may be referred to by different terms such as "consumption" or "weak lungs."

Printed materials can also be helpful in providing patient education. The language used in education materials should match the patient's level of comprehension and be culturally appropriate. Effective educational materials generally assume no more than a sixth-grade reading level. For patients below that level, the interviewer should review materials verbally with the patient (See Resource List for information on patient education materials). Information about the patient's level of understanding should be included in the patient's interview notes for follow-up.

Limit the amount of information given at any one time.

A patient may not be able to remember the important components of the interview if too much information is given at one time or if they are not prepared to receive detailed information. The patient may be overwhelmed and experiencing fear over the diagnosis of TB disease. In addition, illness may make it difficult for the patient to fully participate. The interviewer should be aware of the limits of the patient's ability to pay attention and to absorb relevant information. The duration and intensity of the interview should be adjusted accordingly.

Provide an overview of the interview at the beginning and upon conclusion.

People remember information presented at the beginning and at the end of a session more easily than the information presented in the middle. The interviewer should inform the patient about the purpose of the interview, with an emphasis on confidentiality, and the importance of contact identification at the beginning of the interview. Important information should be summarized at the end of the interview.

Repeat important information.

Some people need to hear new information several times before they remember it. Key messages should be reviewed throughout the interviews. These messages should include the purpose of the TB interview and the fact that the collected information will be used to locate contacts for evaluation and, perhaps, treatment.

Module 2. Basics of Communication and Patient Education

Encourage the patient to ask questions.

Patients should feel comfortable asking questions about information they do not understand. After giving instructions or an explanation, healthcare workers can pause and ask, "I know we are discussing a lot of information at once. What questions do you have?"

Patients may be timid and concerned about appearing uneducated or they may be nervous or not feeling well and simply want to complete the interview quickly. It may take courage for them to ask questions. Patients should be praised for asking questions. For example, an interviewer can say:

- "I'm glad you asked that question."
- "Good question."

All questions should be answered thoughtfully and carefully. Interviewers should also be aware of what questions can be answered within the scope of their job responsibilities and knowledge. If an interviewer does not know the answer to a question, it is acceptable for him or her to say, "I don't know the answer to that…" or "That isn't an area that I have experience with, but I will be glad to find out the answer and get back to you."

Verbal and Nonverbal Communication

How something is said conveys meaning in addition to *what* is actually said. Characteristics of how something is said can convey many meanings particularly when viewed in conjunction with nonverbal cues. Nonverbal communication, or "body language," can provide more additional meaning than speech alone.

The key to effective communication is to be aware of verbal and nonverbal cues. The interviewer should be observant of how the patient portrays these cues. In turn, the interviewer should display the appropriate body language indicated in Tables 2 and 3 while speaking to or listening to the patient.

Module 2. Basics of Communication and Patient Education

Table 2. Building Rapport through Nonverbal Communication

Communication Through Body Language	
Builds Rapport	**Does Not Build Rapport**
Eye Contact	
• Meeting the patient's eye without aggressively forcing eye contact	• Looking at other objects • Looking down • Looking defiantly • Shifting eyes from object to object • Looking away when the client looks at you or verbally responds to you
Facial Expressions	
• Pleasant expression • Brow relaxed • Sincerity	• Frown • Scowl • Grin • Pained look
Posture	
• Leaning slightly toward the client • Sitting in a relaxed but attentive manner • Facing the client • Consideration of personal space	• Sitting sideways or away from the client • Slouching • Crossing arms in front as if to protect self • Taking an aggressive stance • Standing over the client
Gestures	
• Demonstrating with hands to show sizes • Nodding in recognition or agreement	• Flailing arms • Tapping feet • Fidgeting • Shrugging shoulders noting disapproval • Winking • Tending to other tasks during the interview
Touching	
• In most cultures, touching someone you have not developed a rapport with is not acceptable. However, a handshake is usually acceptable upon greeting.	

Module 2. Basics of Communication and Patient Education

Table 2. Building Rapport through Nonverbal Communication, continued

Nonverbal Behavior Using the Environment	
Builds Rapport	**Does Not Build Rapport**
Distance	
• Interviewer moves in relation to movement initiated by client	• Interviewer moves away from client as client moves toward interviewer • Interviewer takes the initiative in establishing distance instead of client taking the initiative
Arrangement of Physical Setting	
Builds Rapport	**Does Not Build Rapport**
• Tidy, organized • Warm, soft • Casual, cheerful • Quiet • Well lit • Private	• Untidy, disorganized • Cold, formal • Cheerless, no color • Filled with distractions • Dark • Crowded with other patients, healthcare workers, or others

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Table 3. Interviewer Verbal and Nonverbal Cues

Cue	Display
Eye contact	Consistent eye contact; eyes should not move around, as this may indicate disinterest and distraction
Posture	Natural and comfortable, not overly rigid or slouching
Voice	Natural volume and tone; if voice is loud, the patient may be intimidated and if too soft, the message may be inaudible or sound hesitant
Speech	Regular pace; excess speed can indicate a feeling of being rushed, while slow speech can sound tentative
Hand motion	Although quite common and acceptable, it should not be distracting to the patient
Interruptions	Kept to a minimum; however, they can be used to move the conversation back into a useful direction if it diverts from the topic
Arms	Not crossed during an interview; use relaxed, open posture
Silence	While uncomfortable, may be an indication of a thought process occurring; silence may reflect thinking both on the part of the interviewer and patient, particularly if there is an unexpected question or statement
Listening	Done while offering eye contact in conjunction with affirmative head nodding or reactive emotions (e.g., smile or empathy); this displays engagement in and acknowledges the value of what is being communicated

Although the cues described in Table 3 pertain to the interviewer, these cues can also pertain to the patient and indicate similar meaning to what is mentioned above. Signs of problems occurring with communication, as indicated from the patient, are included in Table 4.

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Table 4. Patient's Nonverbal Language

Nonverbal Cue	Possible Meaning
Faltering eye contact	Boredom, fatigue, disengagement
Intense eye contact	Fear, surprise, confrontation or anger
Rocking	Fear, nervousness, preoccupation
Stiff posture	Discomfort, nervousness
Elevated voice tone	Confrontation/anger
Prolonged *and* frequent periods of silence	Disinterest, loss of train of thought, inability to understand, fatigue
Fidgeting	Discomfort, disinterest, nervousness, possible drug use

Distress on the patient's part needs to be addressed immediately or the interview will be unproductive. When communication becomes strained, the interviewer should ask how the patient feels and if it is permissible to continue. Acknowledging the amount of information being exchanged and its personal nature may put the patient at ease. The patient may simply not feel well and may need to take a break or continue the interview at another time. Making an appointment for the next day, if possible, may be the best intervention if an interviewer perceives distress. The interviewer should attempt to obtain as much information as possible, as there is a chance that the interviewer may not see the patient again. However, an interviewer should recognize a patient's limits.

Asking Questions

In order to keep focused on the objectives of obtaining accurate and complete information from the patient and building trust, the use of *closed* and *open-ended* and *focused questions* is very important. These concepts are explained below.

Closed-ended questions require a one-word or briefly phrased response, such as "yes" or "no." While not appropriate in obtaining the most information from the patient, closed-ended questions can be useful in confirming information received and quickly summarizing information that was obtained previously. Closed-ended questions can also move a conversation in a more productive direction if the information that is being sought is not being obtained.

Open-ended questions require more than a one-word response, such as a description or an explanation. Open-ended questions prompt the interviewee to provide information without interviewer biases. These types of questions generally begin with who, what, where, when, why, and how. A statement may also begin with "Tell me about…," "Describe for me…," or "Explain to me…"

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Table 5. Examples of Closed- and Open-Ended Questions

Examples of closed-ended and of open-ended questions	
Closed-Ended Questions:	**Open-Ended Questions:**
Do you live alone?	Who lives with you?
Have you had a cough?	What symptoms have you had?
Do you work in a large area?	What is your work environment like?
Is your dad's name spelled J-O-H-N D-O-E?	How is your dad's name spelled?
Did the doctor talk to you about TB?	What did the doctor tell you about TB?

Examples of closed-ended and open-ended question used in combination
Example 1: Determining the infectious period
Open-ended question: What symptoms have you had?
Patient: Well, I have been kind of run down. Stuff like that.
Open-ended question: What other symptoms have you had besides being tired?
Patient: I don't really remember. I've been on medications, so I'm feeling better now.
Closed-ended question: Have you had a cough?
Patient: Yes.
Open-ended question: For how long did you cough?
Patient: For about a month.
Example 2: Determining basic congregate setting exposure information
Opening interviewer statement: Please describe your work environment.
Patient: I work in a factory.
Open-ended question: How is it set up?
Patient: Well, it's kind of an assembly line.
Closed-ended: Is it a large factory?
Patient: Yeah, it's pretty big.
Open-ended: How big would you say?
Patient: Oh, I couldn't really say.
Closed-Ended: Is it the size of this room?
Patient: No, it's about three times the size of this room.

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Examples of closed-ended and open-ended question used in combination
Example 3: Physical descriptions
Open-ended question: You said you hang out with Ralph. How would you describe him?
Patient: He's a little guy; doesn't say much.
Open-ended question: When you say little…how tall is he?
Patient: Oh, I don't know his exact height.
Closed-ended question: Is he my height, taller, or shorter?
Patient: About your height.

Focused questions are used if the respondent makes a vague statement or one requiring more specific information. The question may provide limits or boundaries (e.g., time) to direct an answer. Focused questions are <u>not</u> closed-ended questions.

Table 6. Examples of the use of combined open-ended and focused questions

Example 1
Open-ended question: Where do you spend most of your time?
Patient: You know, it's really hard to say where I spend most of my time.
Focused question: Okay, let's take yesterday. How did yesterday compare to an average day for you?
Patient: It was pretty much the same.
Focused question: So, what did you do in the morning?
Example 2
Open-ended question: Where do you spend most of your time?
Patient: I guess I spend the most time with some people over at the shelter and then some other people I meet for drinks now and then.
Focused question: Whom do you spend time with over at the shelter?
Patient: Well, there's this guy Larry…
Example 3
Open-ended question: What is your mailing address?
Patient: I don't really have a fixed address. I'm living here and there.
Focused question: Can you tell me a little bit more what you mean by here and there?

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Active Listening

Active listening is an effective component of communication and is an essential communication technique that should be used when conducting a TB interview. Active listening is not only hearing what people say, but paying attention to how it is said as well so that further dialogue can be adjusted to elicit the needed responses.

Active listening will

- Provide insight into problems the patient has that might impede his or her adherence;
- Provide insight into how the patient may behave in future situations;
- Help to gain information; and
- Convey to the patient a sense of concern and care.

Active listening allows the patient to speak without interruption and allows the interviewer to

- Absorb information to respond to the patient's questions and concerns;
- Follow the patient's train of thought;
- Pay attention to nonverbal clues;
- Validate unspoken feelings; and
- Verify the patient's understanding of the interview questions.

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Barriers to Communication

During an interview, various barriers to communication may occur that can potentially hinder the interview process if not quickly resolved. Some of these barriers may occur due to the patient's actions, while some may occur in part due to the interviewer. Barriers can be physical or nonphysical.

Table 7. Examples of Communication Barriers

Physical	Nonphysical
• Desk or table between interviewer and patient • A person wearing sunglasses • Noise • People actively moving about the interview room • Body language suggestive of insecurity, poor listening, or disinterest • Lack of privacy • Uncomfortable room temperature	• Time pressure • Language • Interruptions • Judgmental attitude • Education level • Insecurity • Selective listening or failure to listen • Lack of cultural competency

Overcoming Barriers

Noting that some barriers are difficult to overcome, an interviewer can minimize the occurrence of barriers and their effects by

- Scheduling interviews at a time convenient to both the patient and interviewer, keeping in mind health department interview completion deadlines;
- Conducting interviews in quiet, private areas, whenever possible;
- Following appropriate verbal and non-verbal cues;
- Engaging in active listening;
- Utilizing an interpreter as needed;
- Using terminology the patient understands; and
- Consistently assessing the need for a proxy (a person who knows the patient well and is able to provide interview information when the patient is unwilling, or mentally or physically unable, to participate in the interview; see Module 4).

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Understanding the Patient

Another way to overcome barriers is for the interviewer to ensure that he or she completely understands the information that the patient is conveying. It is also important for the patient to see that the interviewer is actively listening to what is being stated and is sincere in addressing the emotions and concerns the patient may be having throughout the interview. This can be accomplished through a combination of three communication techniques: *paraphrasing, reflection,* and *summarizing*.

Paraphrasing is the rewording of a patient's response in order to verify information and display that the interviewer is actively listening.

Examples of Paraphrasing Techniques
Example 1 **Patient:** I don't know how I got TB. I eat well and I don't smoke. **Paraphrase:** So, you don't understand how you got TB since you take good care of yourself.
Example 2 **Patient:** I am feeling very tired these days and the meds mess up my drug use. I don't know if it's all worth it. **Paraphrase:** It sounds like you are considering not taking your medications anymore.
Example 3 **Patient:** I have not always been positive for TB. I think my first exposure was when I lived in shelters and a lot of the people who lived there coughed. That was about 3 or 4 years ago. **Paraphrase:** So you think that you got exposed to TB about 3 or 4 years ago when you were staying in a shelter.

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Reflection is the rewording of a patient's emotional reactions by acknowledging the displayed feeling(s) and its cause. A reflection should be followed by the interviewer's next statement, which should help resolve what is causing the feeling.

Examples of Reflecting Techniques
Example 1 **Patient:** I don't want to get the HIV test. What's the use anyway, it doesn't make much difference. I would rather not know I have AIDS. **Reflection:** It sounds like the HIV-testing process may be scary for you…
Example 2 **Patient:** I don't see any reason why people need to see me take my medicines. I am not a child anymore. **Reflection:** It seems like you feel unhappy about being on DOT...
Example 3 **Patient:** (makes statement with a trembling voice) Sure, I'll answer your questions. **Reflection:** You seem a bit nervous…
Example 4 **Patient:** You have asked me all sorts of questions already. I have answered them all, but I'm not going to give you the names of my friends. We don't like snitches. **Reflection:** So you're feeling like you've been very cooperative but feel offended by the request to reveal the names of your friends…
Example 5 **Patient:** You're telling me that I might have given TB to the people I work with! They'll be so mad at me if they find out it's me. **Reflection:** It sounds as though you are anxious about others' involvement in this contact investigation...

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Summarizing is the rephrasing of a series of statements that have occurred through a dialogue in order to verify information and display that the interviewer is actively listening.

Examples of Summarizing Techniques
Example 1 **Patient:** Actually, I know very little about TB. Like I said, I thought I had the virus 'cause I started feeling weak and tired. I lost my appetite. I don't know much about it, thought you could catch it overnight. I didn't realize that you had to be exposed for a long time. I think I got it from working on ships. A lot of the workers came from places where they have a lot of TB so I think I got it from one of them. **Summary:** So you think that TB is a virus and that you got it while working with people who came from places with a lot of TB. You also know that it takes exposure over a long time to become infected and that tiredness and loss of appetite are symptoms of TB.
Example 2 **Patient:** You'll have trouble approaching the people I use drugs with about TB. They know we never discuss that 'cause it's sort of common knowledge. The only reason they go to take an AIDS test or TB test is because someone is paying them and a lot of them come out positive and they don't even bother to do anything about it. Most people have other things to worry about like money and food. **Summary:** You think that the people you use drugs with do not have to be educated about TB because they already know about it. But if I would want to get them in for testing, I would have to offer them money as an incentive.

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Working with Interpreters

One of the barriers to communication is language difference. In this case, a patient may have little or no proficiency in the language in which the interviewer is speaking. This is when an interpreter should be used. An **interpreter** is any individual who orally conveys speech for another individual who has little or no proficiency in the language in which the interviewer is speaking.

When Is an Interpreter Required?

The interviewer must gauge when an interpreter is needed. In some cases this is very obvious, while in others it is not. The patient's medical record may mention a language barrier so an interpreter can be arranged prior to meeting the patient. A patient may demonstrate language comprehension by nodding his or her head affirmatively or verbally indicate understanding by saying "yes" or "no" when answering questions. However, in this case, the interviewer must be watchful. Even though the patient may have some proficiency in the interviewer's language, the patient may not have an adequate understanding of the interviewing messages. This is where open-ended questions play a key role. The responses to open-ended questions require more than a word or two and can assist the interviewer in judging how much is understood by the answer given. If the patient understands very little of the conversation, despite the interviewer's simplifying of the language used and basing questions on the patient's level of understanding, it is time to engage an interpreter.

Choosing an Interpreter

If possible, a professionally trained or certified medical interpreter should be used for patient interviewing. Interviewers should be aware of resources available to provide appropriate interpretation and make all attempts to acquire an interpreter. One should utilize a third party who is unknown to the patient. A third party can provide unbiased communication and preserve confidentiality.[1] However, in some cases, individuals may feel more comfortable and trusting of people they know. In such instances, reiterate confidentiality issues, especially in small communities or settings where a TB diagnosis may be easily found out. If using an interpreter the patient knows, the patient must state that he or she is comfortable with this person in this role.

Often, a client will bring in a family member or friend to interpret. This can be challenging, especially if sensitive questions are being asked and confidentiality is a concern. Family members, especially children, should not be used as interpreters. Despite this general rule, there are some exceptions when family members may be a good source of interpretation,

[1] Interviewers should adhere to policies regarding the provision of appropriate interpretation and any legal statements or contracts, which should be binding upon the interpreter and interviewer. These policies and contracts may include protection of confidentiality and methods for interpretation.

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such as when the index patient is a young child. Urgency is also key. If an appropriate interpreter cannot be found in time to complete the interview as recommended, an available healthcare worker may serve this purpose. Asking a healthcare worker to serve as an interpreter may also be necessary if a patient is at risk of leaving an interview setting prior to a more appropriate interpreter being located.

Types of Interpretation

There are two styles of interpretation in TB interviewing that can be used: consecutive and simultaneous. Consecutive is when one speaker says a few phrases or sentences and then awaits the interpreter to interpret. In the simultaneous style, the interpreter speaks as the dialogue occurs without pause. With both styles of interpretation, the interaction is face-to-face. However, there are times when a trained interpreter is not available in person. In these cases, a telephone interpretation service can be used. This may involve an interpretation in a remote location by use of a speaker phone. However, if a speaker phone is unavailable, the phone may be passed back and forth between the patient and interviewer, allowing the interpreter to know to whom he or she is speaking.

How to Communicate Through an Interpreter

There are some essential points to keep in mind when working with an interpreter. The interviewer should assess verbal and nonverbal indicators to gauge how well the message is being understood and the patient's comfort level. Note that communication through an interpreter will take more time than a noninterpreted interview and, as such, the interviewer and interpreter should plan accordingly.

Introduction

Explain to the interpreter that the interviewer will be talking to the patient directly and that the interpreter is to convey exactly what was said. In turn, the interpreter should be instructed to state exactly what the patient has said back to the interviewer and not paraphrase or summarize the discussion. This is important so that all key facts are communicated.

Confidentiality

Ensure that the interpreter is aware that all communication is confidential and cannot be shared with anyone outside of the interview.

Addressing the Patient

The interviewer should address the patient directly, using first- and second- person terminology ("I" and "you"). In general, in is best to look directly at the patient when speaking to the patient. Also, when the patient is responding, the interviewer should make eye contact as well. It is acceptable to look at the interpreter when he or she is conveying the patient's statements.

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Use of Language

Avoid slang terminology, as many local words and phrases may not translate accurately into other languages. Also, do not use healthcare jargon. If the interpreter is a layperson, he or she may not know how to state medical terms accurately. Use simple language. Short, precise questions and sentences work well.

Rate of Speech

Speak slowly and clearly. Gauge the pace at which the interpreter can convey messages back and forth. Ask the interpreter at the beginning of the interview to inform the interviewer at anytime if the conversation is proceeding too quickly. Also, take breaks as needed to counter fatigue and to give the interpreter a chance to interpret what has been said.

Acknowledge Beliefs

If the patient offers views or ideas counter to your training and knowledge, acknowledge what is being said and attempt to work within the patient's explanation without jeopardizing the message that needs to be conveyed (see Module 3, "Cultural Competency").

Assess Patient Understanding

At the end of the interaction, **review the material with the client to ensure nothing has been missed or misunderstood**. Ask if the patient has any questions.

Although working with interpreters is a challenge, it is often essential for effective communication of appropriate messages. Much of the interview will be the same as when working with a patient speaking the same language as the interviewer. However, additional time should be allowed, and there should be a greater reliance on observing nonverbal cues.

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Summary

This module covered the basics of communication and patient education. Main points included

- The importance of patient education in the TB interview process;
- Communication as an exchange of information involving asking questions and active listening;
- Assessment of verbal and nonverbal cues to assist in determining the level of the patient's comfort, understanding, and sincerity;
- Eliciting information through open-ended, closed-ended, and focused questions;
- Demonstrating active listening through reflection, paraphrasing, and summarizing;
- Addressing and overcoming communication barriers by eliminating physical barriers, actively listening, interviewing in patient-focused circumstances, and engaging a proxy, if needed; and
- Choosing an effective interpreter who keeps in mind that the patient is the primary source of information.

An understanding and application of these essential components will enhance the TB interview. These components will also allow the communication and education to proceed more smoothly, meeting the objectives of the interview process.

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Case Presentations

The following case presentations demonstrate concepts from this module. You may review them with your supervisor if you have questions.

Case 1

Part 1 – Tony is a 56-year-old homeless man. He was diagnosed with TB, and you are interviewing him in the hospital. He is very talkative and friendly. You have completed your introduction and provided TB education. However, as you move through the interview, Tony moves off topic frequently. He talks about his fear of being "kicked out" of the shelter he lives in and his concern about not getting his monthly disability check. You haven't been able to obtain much information regarding the contact investigation from him.

How can you accomplish the interview objectives when the interview is taking a different direction as it progresses?

Explanation: While it is important to accomplish certain objectives during an interview, these objectives may not be of importance to Tony if he has other pressing concerns. By using the communication methods of reflection and paraphrasing, you should be able to uncover and validate Tony's primary life concerns at the same time. You can say, "It sounds like you are very concerned about where you will be living," and "You seem worried about receiving your money." By doing this, you are communicating that you are listening and are concerned for Tony's well being.

Part 2 – Upon hearing you acknowledge his concerns, Tony immediately asks if you can help him.

How should you now proceed with moving the interview in a useful direction?

Explanation: The interview objectives will not be accomplished unless Tony is reassured that his other concerns will be addressed. Acknowledging his concerns is the first step. You can talk to Tony about referring him to a case manager or others within the health department who can work with him on housing and financial issues. Mentioning this possible resolution may not prompt Tony to answer all of your questions immediately, but it may ease his worries so that you can move on with the interview.

Part 3 – Since you have eased some of Tony's concerns, he seems eager to proceed with answering the rest of your questions. You begin to ask Tony open-ended questions about where and with whom he spends time. As Tony shares information with you, you realize that his answers are not precise. For example, if you ask him what he does each day, he gives a variety of answers. He also names many contacts that you are not sure are truly priority contacts.

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How can you ask Tony questions in such a way that you will obtain more specific information about places he frequents and individuals with whom he spends prolonged periods of time?

Explanation: A combination of open-ended and focused questions would be appropriate in this situation. While you have assessed that Tony spends time in various places, you are mostly concerned with where he regularly spends time. You can ask him where he spends time, but provide a specific time frame. Regarding with whom he spends his time, a time frame is also appropriate to determine if these individuals are priority contacts. Since various methods for identifying contacts are required, you should ask for specific pieces of information including physical descriptions and nicknames. These can be posed as closed-ended questions.

Part 4 – As you progress further through the contact elicitation, Tony's answers become shorter and less detailed. His eye contact begins to falter.

What seems to be occurring based on what has transpired so far during the interview and your assessment of Tony's body language? What can be done to resolve this situation?

Explanation: Based on what you know and are observing, Tony appears to be growing tired and is therefore unable to concentrate on the interview process. Tony is a newly diagnosed TB patient who has participated in a lengthy interview thus far, and you must be sensitive to the fatigue that may occur. At this point, you can tell Tony, "It appears as though you are getting tired. We can continue this interview at a later time when you may be more up to talking." You should end the interview on a positive note, thanking Tony for his time and shaking his hand.

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Case 2

Part 1 – May Lee is a 67-year-old woman from China who is a TB suspect and requires a TB interview. You looked at her medical record, in which you found out that you will need an interpreter to complete the interview in her home. You talk this over with a colleague, who says that he is proficient in Mandarin and would be happy to attend the interview as an interpreter.

Should you take up your colleague's offer to interpret?

Explanation: While it is tempting to bring along a person you know and are comfortable with, another healthcare worker is not always an appropriate choice for interpretation. An interpreter should be trained or certified in medical interpretation**.**

Part 2 – You thank your colleague for his offer to interpret, but tell him that you will try to locate a medical interpreter through your health department listings. You tell your colleague that if you cannot locate an interpreter, you will have him come along. However, you are able to get an interpreter and set up a time for the interview at May Lee's home. You plan to pick the interpreter up in your car so you can both arrive together.

In your health department, the general practice is not to make appointments with patients for TB interviews, but rather to simply arrive unannounced at their homes. However, since you need to ensure that the patient is home and schedule an interpreter to come with you, you ask your Mandarin-speaking coworker to call the patient to make sure she will be home when you are scheduled to arrive.

What should you do on the day of the interview, just prior to entering the patient's home?

Explanation: While in the car with the interpreter, you should set up some ground rules. These rules should address keeping all communications confidential, interpreting all communications precisely without editing, adding, or deleting information, and stopping the interaction if clarification is needed or if more time is required to complete the interpretation.

Part 3 – The interpreter agrees with your ground rules. You then knock on the patient's door and enter her home. You explain to her that the interview will be through a trained interpreter and that all communications will be confidential. You also let her know that the interpreter will be stating all communications exactly as they occur in both English and Mandarin.

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As the discussion progresses, you notice that the interpreter is struggling a bit with the discussion and seems to be slowing down. The interpreter tells you that though he is trained in Mandarin, he has not worked with the dialect for a while. Therefore, it is taking him a little longer than expected to interpret.

What can you do to ease the communication?

Explanation: In addition to slowing your rate of speech and speaking in shorter sentences, you can stop the conversation occasionally to ask the interpreter if the process is progressing well or if he needs a break or assistance. The interpreter may be tired after a while and in need of a short break.

Part 4 – As the conversation proceeds, you notice the interpreter's sentences seem to be getting shorter than what they had been thus far. He is also not interpreting after each pause in your conversation, but does so after you provide several opportunities.

How do you address this apparent communication gap with the interpreter?

Explanation: The interpreter may be paraphrasing the conversation. While you do not know Mandarin to make a definite determination about this, the fact that the pattern of the interpreter's speech has changed is a good indicator. You should therefore stop the interview and tell the interpreter that you sense that the entire conversation may not be interpreted exactly as you indicated in your ground rules. Again, ask if the interpreter needs a break or assistance, and how you can make this an easier process.

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Review Questions

Complete these questions to review concepts from this module. The answers are on page 30.

1. What two conditions must be present for a patient education message to be most effective?
   a. Information provided must be relevant to the patient's condition and life circumstances.
   b. The message must be presented by a certified health educator.
   c. Educational techniques must be individualized for each patient.
   d. The interviewer must present information in its entirety and then ask the patient for questions.

2. How should the interviewer maintain eye contact when interviewing a patient and using an interpreter?
   a. The interviewer should always look at the patient.
   b. The interviewer should always look at the interpreter.
   c. The interviewer should look at the patient when talking to him or her.
   d. The interviewer should not look at anyone.

3. Who is the best choice to use as an interpreter?
   a. A family member
   b. A friend
   c. A trained or certified medical interpreter
   d. Another health-care worker

4. When is it appropriate to use closed-ended questions when interviewing a patient?
   a. To confirm information when first interacting with patient
   b. Never
   c. To confirm information after having received it from the patient during the interview
   d. To confront the patient when he or she is inconsistent

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5. Match the interviewing technique and its definition.

___ Paraphrasing	A. The provision of limits or boundaries if the patient makes a vague statement or one requiring more specific information
___ Reflection	B. The rephrasing of a series of statements that have occurred through a dialogue in order to verify information and display that the interviewer is actively listening
___ Focused Question	C. The rewording of a patient's emotional reactions by acknowledging the displayed feeling(s) and its cause
___ Summarizing	D. The rewording of a patient's response in order to verify information and show that the interviewer is actively listening

6. Match the following verbal and nonverbal cues exhibited by a patient with <u>one</u> emotion they may suggest (answers may be used more than once and each cue may have more than one answer).

_____ Intense eye contact
_____ Rocking
_____ Stiff posture
_____ Elevated voice tone
_____ Prolonged *and* frequent periods of silence
_____ Fidgeting

A. Boredom
B. Fatigue
C. Fear
D. Surprise
E. Confrontation
F. Nervousness
G. Preoccupation
H. Inability to concentrate
I. Disinterest
J. Loss of train of thought
K. Inability to understand
L. Anger
M. Discomfort

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7. When can medical jargon be used with a patient during an interview?
   a. If it is followed by a layperson's explanation
   b. If the patient has already been seen by a doctor
   c. If the patient is a healthcare worker
   d. Never

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Review Questions Answer Key

Answers are in bold.

1. What <u>two</u> conditions must be present for a patient education message to be most effective?
   - ***a. Information provided must be relevant to the patient's condition and life circumstances.***
   - b. The message must be presented by a certified health educator.
   - ***c. Educational techniques must be individualized for each patient.***
   - d. The interviewer must present information in its entirety and then ask the patient for questions.

2. How should the interviewer maintain eye contact when interviewing a patient and using an interpreter?
   - a. The interviewer should always look at the patient.
   - b. The interviewer should always look at the interpreter.
   - ***c. The interviewer should look at the patient when talking to him or her.***
   - d. The interviewer should not look at anyone.

3. Who is the <u>best</u> choice to use as an interpreter?
   - a. A family member
   - b. A friend
   - ***c. A trained or certified medical interpreter***
   - d. Another health care worker

4. When is it appropriate to use closed-ended questions when interviewing a patient?
   - a. To confirm information when first interacting with patient
   - b. Never
   - **c. *To confirm information after having received it from the patient during the interview***
   - d. To confront the patient when he or she is inconsistent

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5. Match the interviewing technique and its definition.

D Paraphrasing	A. The provision of limits or boundaries if the patient makes a vague statement or one requiring more specific information.
C Reflection	B. The rephrasing of a series of statements that have occurred through a dialogue in order to verify information and display that the interviewer is actively listening.
A Focused Question	C. The rewording of a patient's emotional reactions through acknowledging the displayed feeling(s) and its cause.
B Summarizing	D. The rewording of a patient's response in order to verify information and show that the interviewer is actively listening.

6. Match the following verbal and non-verbal cues exhibited by a patient with one emotion they may suggest (answers may be used more than once and each cue may have more than one answer).

C,D,E Intense eye contact
C,F,E Rocking
F,M Stiff posture
E,L Elevated voice tone
B,I,J,K Prolonged *and* frequent periods of silence
F,M Fidgeting

A. Boredom
B. Fatigue
C. Fear
D. Surprise
E. Confrontation
F. Nervousness
G. Preoccupation
H. Inability to concentrate
I. Disinterest
J. Loss of train of thought
K. Inability to understand
L. Anger
M. Discomfort

Module 2. Basics of Communication and Patient Education

7. When can medical jargon be used with a patient during an interview?
   a. If it is followed by a layperson explanation
   b. If the patient has already been seen by a doctor
   c. If the patient is a health care worker
   d. Never

Module 2. Basics of Communication and Patient Education

Glossary

Active listening – the process of hearing what is said and paying attention to how it is said so that further dialogue can be adjusted to elicit the needed responses. Active listening utilizes various verbal and nonverbal techniques.

Barrier – physical or nonphysical obstacles or hindrances that can slow or stop communication.

Closed-ended questions – require one-word or briefly-phrased responses, such as "yes" or "no." Closed-ended questions can move a conversation in a more productive direction if the information that is being sought is not being obtained.

Communication – the exchange of information by symbols, words, signs, or actions. It is an interactive process, which involves feedback. Communication revolves around asking questions, listening actively, understanding a patient's concerns or needs, and demonstrating a caring attitude while helping to solve problems.

Interpreter – an individual who orally conveys the exact communication for another individual who has little or no proficiency in the language in which the interviewer is speaking. Ideally, an interpreter should be professionally trained or certified.

Focused questions – used if the respondent makes a vague statement or one requiring more specific information. The question may provide limits or boundaries to direct an answer.

Open-ended questions – used to promote dialogue; these questions require more than a one-word answer and usually begin with who, where, what, why, or how.

Nonverbal communication – conveying messages through body language, such as eye contact, facial expression, posture, gestures, and touching.

Paraphrasing –the rewording of a patient's response in order to verify information and display that the interviewer is effectively listening.

Patient education – the process of providing information to a patient on his or her medical condition, treatment regimen, or processes in which he or she becomes involved with healthcare staff (e.g., contact investigation). Information is based on patient's level of understanding, existing knowledge, and feedback (e.g., body language or questions) he or she provides.

Reflection – an interviewer's rewording of a patient's reactions through acknowledging a patient's feeling(s) and its cause.

Module 2. Basics of Communication and Patient Education

Summarizing – the rephrasing of a series of statements that have occurred through a dialogue in order to verify information and demonstrate that the interviewer is listening carefully.

Verbal communication – how something is said conveys meaning in addition to what is actually said. Verbal communication includes sound, words, and language.

Module 3. Cultural Competency

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Module 3. Cultural Competency

Objectives

After reading through this module, you will be able to

- Describe the concepts of culture and cultural competency;
- Identify various factors that contribute to an individual's culture;
- Understand why cultural competency is essential in TB interviewing;
- Assess the communication process based on a patient's verbal and nonverbal cues; and
- Limit the barriers of language, dialect, lifestyle, and belief differences during an interview.

Introduction

Culture is shaped by experiences and life events that contribute to a person's beliefs, values, attitudes, and behaviors. Culture may also affect the ways in which a person communicates, both verbally and nonverbally, and understands information. Interviewers should be aware of the diversity of all individuals they encounter and how cultural factors may affect the course of the interview.

Cultural competency is the sensitivity to and awareness of the various factors that shape a person's identity. It is an important skill for a TB interviewer and encompasses the ability to work with and care for diverse individuals to meet their cultural needs without compromising their health or that of the public.

The populations affected by TB are very diverse. TB affects a disproportionate number of nonUS-born individuals, migrants, people who travel extensively to and from TB-endemic countries, racial and ethnic minorities, the elderly, and other distinct groups. While local TB epidemiology varies greatly from area to area, cultural competency is important in TB interviewing in all geographic locations.

Module 3. Cultural Competency

The Concept of Culture

What we refer to as culture often consists of numerous variables for an individual, including but not limited to

- Age
- Gender
- Race
- Ethnicity
- Geographic origin or location
- Spirituality, religion, or faith
- Sexual orientation
- Nationality
- Language or dialect
- Disability

Specific life events and factors can influence the way in which the above variables for the person or his or her family are integrated into one's life. These factors can include

- Political values and affiliation;
- History of oppression;
- Experience of discrimination;
- Socioeconomic status;
- Language and the arts;
- Religious practices;
- Upbringing;
- Family roles and structure;
- Degree of opposition to acculturation;
- Settlement in outside environments through immigration and migration;
- Education and employment history; and
- Military experience.

Module 3. Cultural Competency

Culture and the Individual

Culture is individual, and information about it should be obtained directly from the patient. While a variety of information exists on various races, ethnicities, religions, and other categories of cultural groups, it is important to note that not all persons identified by the same label have the same beliefs and behaviors. For example, a person who identifies himself or herself by a particular ethnicity may not behave similarly to all others in that ethnic group. This person may have lived away from members of this ethnic group or may have been raised by someone from another ethnic group. The person's own identification, name, or physical characteristics could suggest an ethnicity even though the person's beliefs and behaviors do not fit the accepted image of that group.

Despite the fact that cultural characteristics are specific to a patient, it is valuable to learn about different cultures to develop a general understanding of how a person's perceptions, beliefs, and values may vary. While these characteristics will not always pertain to the individuals who are deemed a part of a certain culture, it is important for interviewers to be aware of differences. For example, noting that particular hand gestures may have negative connotations in certain cultures can indicate that one should use care when using any hand gestures in communications with patients.

Role of the Interviewer

The interviewer should communicate respect for the patient, both verbally and non-verbally. This is best achieved by being observant of and sensitive to the many variables that can affect the interaction between the interviewer and the patient. A patient's reaction to the interviewer may be a reflection of the patient's values or views of certain relationships. For example, the gender of the interviewer may affect the patient's comfort level. If the interviewer senses a patient's discomfort, changing to an interviewer of the same gender would be preferable, if possible.

Interviewer's Culture

The interviewer's culture (e.g., race or ethnicity) can also affect the interaction between the interviewer and the patient. However, each patient's preference is individual. A patient may prefer an interaction with someone of the same culture, while for others this is undesirable. The interviewer should be aware of how comfortable the patient is by noting verbal and non-verbal cues.

Module 3. Cultural Competency

Nature of the Interviewer's Job

It is important to keep in mind that the role of an interviewer may have some inherent negative connotation, especially since he or she is asking personal questions. A patient may have had negative experiences with the healthcare system or government authorities in the past. The interviewer, representing both of these entities, should remain sensitive to this connotation and clarify that his or her role is to protect the public's health and the health of the patient and the people close to the patient.

Observing Customs and Practices

While conducting an interview, the interviewer should honor customs observed by the patient. For example, if the interview takes place in the patient's home and it is observed that shoes are kept outside the home, the interviewer should remove his or her shoes prior to entering. Seating arrangements are also important. An interviewer should wait to be asked to sit in a certain location, to make the patient feel more comfortable. In some cultures, a male may be the spokesperson for the family. If an interview is being conducted with a female patient, but a male in the home is speaking for her, respect for this practice should be given. It is important, however, to maintain rapport with both the patient and spokesperson and to explain that you wish to gain information exclusive to the patient, from her viewpoint. If the interviewer is uncomfortable, another interview can be suggested with just the female patient.

Health Beliefs

A patient's understanding of or beliefs about TB may differ from the medical model in which most healthcare workers are trained. This may include how to treat TB, how TB is transmitted, and the specific significance the disease has for the affected person. It is important to respect different health beliefs, and provide the correct information in non-judgmental fashion. As with any TB interview, the provision of education and an emphasis on reasons for contact identification are important. In regard to other health beliefs, the interviewer should refer any treatment or diagnostic concerns to the patient's clinician or case manager for further follow-up.

Stigma

The diagnosis of TB may carry a particular stigma or negative connotation in some cultures. The patient may even deny that he or she has TB or that the treatment offered is curative. The interviewer should always acknowledge the fact that a patient may feel ashamed or fearful of the diagnosis of TB. In a contact investigation, having to probe for information about persons to whom the patient may have spread TB may cause even further distress. Again, it is important to acknowledge the patient's stress, explain why it is important to conduct the TB interview, and emphasize its confidential nature. For example, an elderly person with TB may recall many cases of TB in the past among friends and family members. These cases were treated differently than today's cases, due to the fact that medical regimens were limited in the past

and many people eventually died. The current TB patient may fear having TB and have trouble accepting the way disease is being treated because of his or her past experiences. The interviewer should be sensitive to these issues.

Health Seeking Behaviors and Beliefs

Cultural attitudes about illness may complicate determination of a patient's infectious period. A patient may have been symptomatic for longer than he or she may acknowledge. TB symptoms may have been attributed to other illnesses for which various remedies or care were sought. The interviewer should attempt to discover any and all instances of TB symptoms, especially coughing, to accurately determine the infectious period. Asking about specific symptoms can be helpful. Also, asking what remedies were sought to resolve symptoms can assist in remembering when symptoms may have occurred.

Source, Treatment, and Cure of Illness

Beliefs about how TB is spread and its causative agents can vary. The long history of TB has created various theories about its cause, including beliefs that certain behaviors such as smoking, breathing polluted air, and hard labor may cause TB and contribute to its progression. Furthermore, remedies for symptom relief and cure of the disease can vary. If discussion about treatment occurs, the interviewer should keep in mind that traditional or folk medicine can be complementary to Western medicine, but should be overseen by the treating clinician. It is also important to be sure of the patient's understanding of terminology. For example, for some, the word "infection" may suggest something much more serious than the word "disease." Effectively communicated patient education can help resolve these issues.

Appropriate Communication

Communication with the patient can be affected by many different factors, of which the interviewer must be observant. This is covered further in Module 2, "Communication and Patient Education." However, cultural differences can also influence this communication. The interviewer should be mindful of the following cultural factors that may affect the patient interview.

Interviewer Introduction

When greeting a patient, even if unsure of the pronunciation of a patient's name, an attempt should be made to pronounce it. The patient should then be asked for the correct pronunciation. Making this sincere attempt demonstrates respect and assists in rapport building. Asking for clarification on pronunciation and not being able to pronounce all names is not a bad reflection on the interviewer. Also, sometimes learning a common greeting, such as, "Hello" or "How are you?" in a patient's language, can ease any tension and show the interviewer's sensitivity to culture.

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Accent and Dialect

The presence of a foreign accent or of dialect differences can cause difficulty in understanding for both the patient and interviewer. If the patient's language is limited, then an interpreter is necessary.

If conducting an interview in which the interviewer or the patient is having difficulty in understanding the discussion because of accent or dialect, some of the following techniques may be used:

- Speak slowly and clearly.

  If the pace of the interview is slowed, then the patient may also slow his or her speech to make the information more understandable.

- Use nontechnical words and phrases.

  Many individuals who speak more than one language will internally translate phrases into the language with which they are most comfortable. Some phrases, especially "sayings" with figurative meanings, change in meaning when translated. When working with an interpreter, avoiding local jargon and excessive medical language will ease communication.

- Ask the patient if anything is not understood.

  Even if a patient affirms information by nodding his or her head or verbally acknowledging information, the interviewer should encourage the patient to ask questions and summarize what he or she has heard. If the interviewer has trouble understanding the patient, he or she should politely ask for clarification. Conversely, the interviewer may not always be understood and may be asked for a rewording of what was said.

- Use written information.

  While English may not be the primary spoken language for many people, it may be easy for them to write. If the patient cannot write in English, the interviewer should obtain phonetic spellings of names and addresses of contacts based on what the patient states. That is, the interviewer should write items in the closest way to which the patient pronounces them. This can assist the interviewer during the re-interview, if he or she must ask additional details about certain contacts. This can also provide assistance to the healthcare worker who must go into the field and interact with any named contacts later.

Module 3. Cultural Competency

Presence of Additional Individual(s) During the Interview

During the interview, there may also be another family member present. Often times, a patient, while proficient in the language in which the interview is being conducted, feels more comfortable communicating through a family member or having this member speak for him or her. The interviewer should explain to the patient and the family member that direct communication with the patient would be most accurate and questions would be best answered if they came directly from the patient. While this is not preferred, interviewers can collect baseline information (names, phone numbers, or addresses) can be collected from a family member. If the family member is present throughout the interview, a re-interview should be scheduled at a time when the family member is not present to ensure privacy. If either party is uncomfortable with this arrangement, then the interview should proceed under circumstances with which all parties are comfortable.

Module 3. Cultural Competency

Eliciting Contacts

The most important part of the TB interview is identifying priority contacts and obtaining information about congregate settings in which transmission may have occurred. While seemingly straightforward, patients do not always readily do this, particularly if lifestyle characteristics are different from the local culture.

- Nontraditional Living Circumstances
  - If the patient has contacts within a living arrangement that is different from a "mainstream" situation, he or she may be less willing to share this information. For example, a patient who lives in a joint family (e.g., multiple families living in the same household), may not want to reveal this information. It is up to the interviewer to restate the importance of identifying all priority contacts to protect their health. To obtain information about all household contacts, the interviewer must ask about all people who live in the house, whether these are nonimmediate family members, distant relatives, or friends.
  - A patient's "partner" or "significant other" may not be someone the person is married to, even if he or she lives in the same household. A partner or significant other may also be of the same sex as the patient. The interviewer should be sensitive to a variety of living arrangements and sexual orientations and ask questions with this in mind. The interviewer should ask about a "spouse or partner" when eliciting priority contacts, not assuming the sex or marital status of these individuals.
- Non-United States Resident Contacts
  Information about contacts exposed during the entire infectious period should be collected, even if the contacts are not in the country during the time of the interview. The health department protocols for follow-up of contacts outside the United States should be followed in this case.
- Cultural Organizations
  Contacts associated with cultural organizations (e.g., places of worship, fine arts groups, or ethnic- or language-based organizations) may be difficult to identify. Often cultural groups are support systems, and naming contacts from these groups may promote a patient's fear of losing this support. The interviewer should emphasize why contact identification is important and that confidentiality will be maintained. The interviewer should also try to obtain the name of an individual within the cultural group who can assist with information collection about contacts and the exposure setting itself. The patient can tell the interviewer who this person would be. In some circles, a prominent or leading member of the community may need to be consulted for permission to conduct a contact investigation within that group. The patient should be consulted to determine the best approach, and if the patient wants formal permission to be obtained, this should be respected.

Module 3. Cultural Competency

Summary

This module provided an overview of the principles of cultural competency needed for TB interviewing. It included

- A definition of *culture* as the variables and life events that contribute to a person's beliefs, values, attitudes, and behaviors;
- A definition of *cultural competency* as the sensitivity to and awareness of various factors that may shape a person's identity;
- The variables that comprise culture, such as race, gender, ethnicity, geographical origin or location, spirituality/religion/faith, sexual orientation, age, nationality, language/dialect, and disability;
- How the interviewer's own culture, communication style, language, and attention to differences in behaviors and beliefs can contribute to the interactive process with the patient; and
- How observing and respecting nontraditional living, working, and social circumstances may play a role in eliciting appropriate contacts.

Cultural competency cannot be learned only by reading and absorbing generic information about various groups. Cultural competency is a set of skills developed by remaining aware of patient diversity through verbal and nonverbal cues and engaging the patient in information exchange while demonstrating respect, objectivity, and willingness to learn about the patient's culture. Developing these skills is the best way to conduct an effective interview and build rapport with patients from diverse backgrounds.

Module 3. Cultural Competency

Case Presentations

The following case presentations demonstrate concepts from this module. You may review them with your supervisor if you have questions.

Case 1

Part 1 – You have been asked to conduct an interview in the home of Sona, a 27-year-old woman who has been diagnosed with smear-positive suspected pulmonary TB. According to her medical record, she arrived in this country 3 months ago and has been told by her doctor to stay at home until she is noninfectious. She speaks English fluently. You go to her home, introduce yourself, and are ushered inside by a man who introduces himself as Sona's husband. He asks you to sit down. Sona goes into the kitchen and returns with a drink for you. The husband sits down, as you are about to start your interview.

Should you proceed with the interview in this situation? If so, how?

Explanation: It is important to let both individuals know that you are there to share information with Sona. However, the acceptable way of interviewing for this patient may be for another individual to speak for her.

You should first professionally and respectfully indicate to Sona and her husband that you are from the health department to discuss an important health matter. If and when, in private, Sona agrees that it is all right to speak openly about her TB with her husband present, the three-way discussion may occur. Stressing confidentiality procedures and respectfully thanking Sona and her husband for their understanding will also exemplify your commitment to privacy.

During the interview, speak directly to Sona even if answers to your questions are coming from another person. However, if the husband is speaking to you, maintain eye contact with him. Try to schedule a re-interview at a later date with only Sona present.

Part 2 – The husband answers the questions for Sona and asks TB-related questions. He is very cooperative and lets Sona answer questions for which he is unsure of the answer. As you build rapport, Sona also begins to speak directly to you but does not maintain eye contact. She also keeps her hands in her lap and speaks softly and briefly.

Module 3. Cultural Competency

How can you be sure that Sona is engaged in the discussion?

Explanation: Sona may be uncomfortable with direct eye contact or even speaking with her husband present. You should use open-ended questions for broader answers. You should also ask Sona throughout the interview if she is feeling all right, and if she has any questions. She may need to hear you state that it is acceptable to interrupt you if she has questions or remembers anything she or her husband forgot to tell you.

Part 3 –When you begin eliciting contact names, the husband explains to you that he is afraid of telling you the names of any contacts as they will be very upset. While he trusts that you will keep Sona's identity confidential, he fears that the contacts will be very upset, since TB is a "killer" disease in his country of origin.

What can you say to address the fears of Sona and her husband?

Explanation: Reassure them that you are conducting this interview so that you can 1) help prevent the further spread of TB, 2) provide education on the status of Sona's treatment, 3) answer any questions she may have about her disease, and 4) refer priority contacts for medical evaluation, treatment if infected, and cure if found to have disease. Let her know that you will find out the answers to any of her questions for which you do not know the answers.

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Case 2

Part 1 – You are conducting an interview of Razia, a 21-year-old woman who is a TB suspect. This interview is in the patient's apartment. She is a recent immigrant to the United States, but speaks fluent English. You note from her medical record that she is a homemaker and lives with her husband. He is at work during the interview. The record states that Razia has only listed her husband as an emergency contact and has no children. As you walk to her home, you notice that she lives on the third floor of a multifamily house. There are two other apartments, and you hear people inside.

As you proceed with the interview, Razia appears to understand the purpose of the interview and the information you are providing about her diagnosis and treatment. When you begin to elicit contacts, Razia states no one else lives in her home, a small 3-room apartment. However, when she gives this information is given to you, Razia's eye contact begins to waiver and her voice tone is quieter. Upon questioning whether she has visitors or employment within her home, she insists that no one else besides her husband is in her home.

Since it is obvious that Razia is not confidently providing this information, how should you proceed?

Explanation: Since you must elicit all contacts, ask your questions in other ways such as "Whom do you spend time with regularly?" Razia's priority contacts may not all be in her home. You can also touch upon her interactions with the other apartment dwellers by asking, "How much time do you spend with your neighbors?" These are just the preliminary questions you should ask before looking into other spheres of her life such as work, school, and social activities.

Part 2 – When you ask Razia a general question about whom she spends a lot of time with, she still insists that she spends time at home all day until her husband arrives. When you ask about other contacts, she mentions some other friends whom she rarely saw during the infectious period. A few minutes later, an elderly woman walks into the apartment without knocking. The woman speaks to Razia in her native language and is carrying food that she leaves on a table. Razia says something to the woman, who then leaves.

How do you approach the topic of others who spend time in Razia's home in light of observing the visitor who just arrived?

Explanation: It is obvious that the visitor is familiar enough to be someone with whom Razia spends a lot of time. This visitor is also someone who may not live with Razia, but probably lives nearby, perhaps even in one of the other apartments in the house.

Module 3. Cultural Competency

Part 3 – You reiterate the importance of identifying priority contacts and tell Razia that she needs to be candid about all people with whom she spends prolonged periods of time. You then directly ask Razia about the woman who walked into her home. Razia hesitates, but then tells you it is her mother-in-law who lives downstairs. She came to bring some food for her and her husband. She then mentions that her husband's family lives in the other two apartments. She spends considerable time with them while she watches her sister-in-law's two small children 2 days a week. Razia states that she was too embarrassed to tell you this, and that none of the family members know that she has TB.

How should you react to Razia's admission?

Explanation: In a nonjudgmental tone of voice, you should thank Razia for sharing the information and tell her it must have been hard for her to tell you this. However, it was important that she told you about other people she spends time with, especially any elderly or very young contacts. You now need to ask Razia some very specific questions about who lives in the other two apartments, how much time she spends with them, and if there are other visitors who come to those homes while she is there. As needed, reassure the patient that she is doing the right thing by sharing the names of other contacts with you. It will make the contact investigation go more smoothly and may allow these persons to be more supportive of her. You tell her that perhaps her husband and even you can be there while she tells them; however, this is her choice.

Module 3. Cultural Competency

Review Questions

Complete these questions to review concepts from this module. The answers are on page 16.

1. What is cultural competency?
   a. Having specific knowledge of customs of many groups
   b. The sensitivity to and awareness of various factors that shape a person's identity
   c. Providing education to foreign-born patients
   d. Knowing many languages

2. What is usually the best source of information about a patient's culture?
   a. An encyclopedia
   b. A relevant cultural organization
   c. Another healthcare worker from the same cultural group
   d. The patient

3. What strategy would not be expected to ease communication between an interviewer and patient who speaks the same language but cannot be understood because of a different accent?
   a. Speaking slowly
   b. Writing things down phonetically
   c. Using an interpreter
   d. Asking for clarifications

4. When eliciting household contacts, what is an appropriate first question to ask a male patient if obtaining information about a spouse or domestic partner?
   a. "What is your wife's name?"
   b. "Do you have a girlfriend?"
   c. "Do you have a significant other?"
   d. "Who lives with you?"

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5. If a patient appears uncomfortable with a particular interviewer, what is a good initial problem-solving approach?
   a. Change interviewers
   b. Find out what is making the patient uncomfortable
   c. Explain why this interview is important and move forward with questions
   d. Discuss an unrelated topic

6. If a patient reveals during a TB interview that he does not believe in his TB treatment, but in an alternative herbal regimen, what should the interviewer do?
   a. Tell the patient he can continue with his alternative herbal regimen
   b. Ask the patient to talk to his doctor about this alternative herbal regimen and that there is a possibility that he can continue with his alternative herbal regimen as long as he continues his TB drugs
   c. Tell the patient to stop the alternative herbal regimen and take only his TB pills
   d. Tell the patient to adhere to the regimen that makes him feel best

Module 3. Cultural Competency

Review Questions Answer Key

Answers are in bold.

1. What is cultural competency?
   a. Having specific knowledge of customs of many groups
   b. ***The sensitivity to and awareness of various factors that shape a person's identity***
   c. Providing education to foreign-born patients
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   b. Ask the patient to talk to his doctor about this alternative herbal regimen and that there is a possibility that he can continue with his alternative herbal regimen as long as he continues his TB drugs
   c. Tell the patient to stop the alternative herbal regimen and take only his TB pills
   d. Tell the patient to adhere to the regimen that makes him feel best

Module 3. Cultural Competency

Glossary

Culture – the variables and life events that contribute to a person's beliefs, values, attitudes, and behaviors.

Cultural competency – the sensitivity to, and awareness of, various factors that shape a person's identity.

Epidemiology – the study of the distribution and causes of disease and other health problems in different groups of people.

Health beliefs – one's attitude or understanding of the cause or cure of an illness or condition.

Joint family – two or more families living in the same household.

Significant other – a person of extreme importance to a patient, usually a love interest or spouse. Person may live in the same household or live in another household but spend a great deal of time with the index patient.

Module 4. Special Circumstances

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Module 4. Special Circumstances

Objectives

After reading this module, you will be able to

- Describe how TB interviews may vary depending on the patient's life circumstances;
- Decide when to use, how to choose, and how to interview a proxy;
- Conduct a source case interview by selecting an appropriate interviewee and eliciting appropriate contact and exposure setting information;
- Conduct interviews in outbreak circumstances; and
- Understand social network analysis and the role the interviewer plays.

Introduction

While the objectives of TB interviewing and the skills involved are the same for all patients, there are instances in which traditional approaches for obtaining information may need to be altered. All patients, regardless of their health status and their circumstances, should be held to the same expectations for completing an interview. However, it is important to be prepared for challenges that may occur during an interview and to understand why these challenges occur.

An interviewer should use information gleaned from the medical record review to develop a preliminary strategy for working with all patients. If the record indicates that the patient has a pre-existing medical condition, unmet needs, a history of nonadherence, or behavior that may make the interview process difficult, the interviewer should be prepared to deal with these issues in a concerned and nonjudgmental manner. Other circumstances may also include the need to utilize someone other than the patient to identify contacts.

Module 4. Special Circumstances

Challenges During the TB interview

If the medical record review does not suggest the existence of any special circumstances, or if no medical record is accessible, it is the interviewer's responsibility to interpret verbal and nonverbal cues that may influence the successful exchange of information. The following circumstances may cause challenges to conducting a TB interview:

- Unlikelihood of Follow-up Interviews

  Some patients may be difficult to locate for more than one interview, making the initial interview most important for collecting information. To the extent possible, all objectives of the TB interview must be accomplished during this one interaction. For example, patients who are homeless or have a history of migration can be difficult to locate for follow-up interviews.

- Distrust of Authority

  Past negative experiences with government or healthcare agencies may cause a patient to refuse interview requests or to provide little or no information during the TB interview.

- Fear of Legal Consequences or Moral Judgments

  Anything alluding to the legality or morality of patient actions can frighten a patient who is involved in illicit or illegal activities such as drug use, undocumented immigration status, commercial sex work, or previous negative experiences with the law.

  A patient can be reluctant to reveal participation in behaviors that are illegal, perceived as immoral, or different from that of mainstream society (e.g., drug use, unreported work, or alternative lifestyle). The patient can also fear the consequences of revealing that contacts are involved in illicit activities. This fear can outweigh the perceived responsibility to identify priority contacts exposed while engaging in these activities.

- Inability to Provide Identifying and Locating Information

  An index patient may make sincere attempts to identify priority contacts. However, due to the nature of the patient's or contacts' lifestyles (e.g., homelessness or substance abuse) or the setting(s) (e.g., drug den, bar, or social club) in which the contacts were exposed, the patient may not be able to provide the names or locating information of the contacts.

- Undocumented Immigration Status of Contacts

  If contacts are in the country illegally or were exposed in a work setting and do not have valid work permits, a patient may hesitate to name them for fear of jeopardizing their status in the country and at the work site.

Module 4. Special Circumstances

- Unmet Personal Needs and Coexisting Medical Conditions

  A patient may consider health, housing, family, occupational, or financial concerns as being of higher priority than completing TB treatment or participating in the contact investigation process. Persons who are homeless, HIV infected, primary caregivers, or on public assistance may not be entirely engaged in the interview process due to other concerns.

- Physical or Mentally Inability to Adequately Communicate

  Some patients may not be competent or able to understand or communicate effectively because of a physical or mental disability.

Module 4. Special Circumstances

Overcoming Challenges

All TB interviews should be guided by the same principles and skills. In all cases, the TB interviewer's initial introduction and self-identification is crucial. While being identified as a member of the health department, the TB interviewer should emphasize protection of the public good and the health of those the patient knows or has come into contact with as the reason for initiating the TB interview. Also, reiteration of confidentiality and provision of education, with many opportunities for patient questions, should be ongoing.

Patient concerns may surface throughout the interview, necessitating various approaches to address the unique nature and circumstances of each patient.

- Patient Reluctance

  A patient may hesitate to reveal information about illicit activities or contacts. The interviewer must emphasize that the interview is being conducted for the purpose of identifying and evaluating priority contacts, and not to implicate or pass judgment. It is important that the interviewer safeguard patient information and assure the patient that this information will not be shared with authorities or prevent the patient from receiving services. This should be reiterated each time a patient shares concerns or shows evidence of reluctance to provide information.

- Vague or No Contact Information

  If a patient cannot give names or addresses of priority contacts, the patient should be asked for nicknames, physical descriptions, and descriptions of locations in which exposures have occurred. However, descriptions can be difficult to specify. When gathering descriptive information, the interviewer should provide reference points for the patient to use such as: "How tall is John? Is he about my height?" The same is true for exposure setting descriptions. For example, "Where is the diner? What is the nearest store or landmark? Tell me how to get there from the shelter where you live."

- Undocumented Immigration Status

  Since the goal of the TB interview is to provide education and identify contacts, the patient's immigration/visa status and standing with the law is not relevant. Interviewers should not ask about immigration/visa status or legal standing. If the patient volunteers this information or reveals it in an effort to determine how this may affect the contact investigation, the interviewer should reinforce that the health department is only concerned about preventing transmission and medically evaluating exposed contacts.

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- Other Pressing Life Concerns

  A patient may display disinterest in the interview process as evidenced by body language or frequent diversions to other topics. The interviewer should address this to discover what concerns the patient has and how they can be resolved, if possible, and should make referrals according to health department policy. A case manager or other personnel within the health department can address overwhelming social and medical needs and other concerns. Discussing patient concerns can assist the patient in completing TB treatment and provide information for the TB interview process.

- Uncooperative Behavior

  Some patients may not want to participate in the contact investigation process. They may feel that questions about contacts and exposure sites are too personal. Also, the patient may state a lack of concern for his or her contacts. While not easy to do, it should be explained that, in the patient's case, someone spread TB to him or her and that the same could happen to others if contacts are not identified. Or, there may be contacts who have developed active cases of TB and will spread the germs to others. The patient's role is very important in this regard. The patient should also be reassured about confidentiality, as this may also be a worry on the patient's part. If all attempts to engage the patient fail, another healthcare worker may attempt to conduct the interview.

Often, cues from the patient may be subtle; the interviewer should look for verbal and nonverbal cues to assess fear, discomfort, hesitance, and lack of understanding. Use of problem identification and problem-solving strategies such as patient assessment, review of the interview objectives, emphasis on confidentiality, and prompting for locating and descriptive information should be employed as often as necessary. These are used to educate the patient about the purposes and importance of the TB interview as well as to inform him or her of how any collected information will be used.

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Proxy Interviews

A *proxy* is a person who is interviewed in the place of the index patient. Proxies are used based on local standards of practice when the index patient is unable to be interviewed. For example, a proxy could be used if the patient is

- Deceased
- Physically or mentally unable to adequately communicate or provide information
- A child
- Unable to be located

A proxy should not be engaged simply because the patient is **unwilling** to be interviewed. This is also true for a patient who does not speak the same language as the interviewer. In this case, instead of using a proxy, an interpreter should be used.

Deciding to use a Proxy

Prior to the interview, the interviewer will decide whether to use a proxy or not. Whenever it is not possible to interview the index patient due to death or medical or mental condition, the interviewer should interview one or more persons who are likely to know the patient's practices, habits, and behaviors and are able to identify persons with whom the patient has been in contact. Any notes in the medical record from a social worker can also be helpful. Obviously, in the case of a deceased or very young patient, the need to use a proxy is very clear. If the interviewer decides to interview the actual patient, a decision to introduce a proxy can be made at any time during the interview.

Appropriate Proxies

A proxy can be a family member or close friend, and should be who knows the patient and his or her routine well. Family members who visit the patient in the hospital or at home regularly or are designated as next of kin or emergency contacts are the best choice. In a congregate setting, the proxy may not have clear personal knowledge of the patient, but may have access to documentation in the form of schedules or records, which provide data on the patient's exposure setting(s). For example, in a correctional setting, if an index patient has been released and cannot be located, a worker within the setting may be able to provide information on the patient's contacts based on records of the inmate's locations during incarceration and his or her documented routine. There may be more than one proxy used for an interview. However, this should only be done if additional useful information can be derived from interviewing others.

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Confidentiality and Sensitivity

Though a proxy is not the index patient, confidentiality is just as important. The interviewer should educate the proxy about the health department's policy of protection of confidentiality. The proxy should also be informed about his or her responsibility in keeping information about the index patient confidential. Even though in most states information about deceased patients need not remain confidential, respect and sensitivity are required, especially if the proxy is a family member or close friend of the index patient.

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Source Case Investigation

In some cases a contact investigation will be done with patients, especially young children with TB infection or noninfectious disease. This is called a source case investigation. The *source* is a person with infectious TB disease who transmits *M. tuberculosis* to another person or persons. The patient is identified through a contact or source case investigation and may or may not be the index patient.

The Purpose of Source Case Investigations

Source case investigations are recommended for young children age 2 and under with latent TB infection and age 4 and under with active TB disease.[1] This is because TB in young children indicates recent transmission, so the ability to locate an infectious source case is more likely. Not all source case investigations result in potentially infected contacts being identified. The ultimate goal of a source case investigation is to determine who transmitted *M. tuberculosis* to a child, index patient, or persons in a cluster of skin test conversions and whether this person

- Is still infectious;
- Was reported to the health department as a TB case or suspect; or
- Has infected others.

Even though not routinely recommended for adults, source case investigations for adults may also be conducted in some health departments, especially when there is

- A group of documented recent tuberculin skin test conversions in a high-risk institution;

  or

- A severely immunosuppressed person who does not have a known history of latent TB infection found to have TB disease.

Identifying Associates

In source case investigations, the names the interviewer elicits are called *associates*. For child source case investigations, emphasis is placed on adults or adolescents with whom the child spends or has spent great amounts of time. In such a scenario, there is no infectious period, since children rarely spread TB. Health department guidelines should be followed for establishing a time frame to guide the elicitation process. A time frame of greater than 6 months can make it difficult for individuals to recall exposure sites and people they have had contact with.

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[1] Conducting source case investigations is also driven by resources and pending work in a health department. Therefore, the patients for whom source case investigations are conducted, and even whether they are conducted, vary on a local basis.

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Since young children may not be the best source of information, the parent, guardian, or someone who knows the child's lifestyle well should be interviewed. A source case interview should match the format of a standard TB interview, with the exception of symptom elicitation to verify an exposure time frame. Questions for source case investigations regarding children should be asked about associates in the following areas:

- Household (those living in the household, frequent visitors, other homes where the index patient has lived)
- School
- Regular child care (both inside the home and outside the home)
- Car pools
- Play groups
- Recreational activities
- Extended family and friends
- Places of recent travel

The interviewee should also be reminded of confidentiality and the contact referral process. Education must be provided, particularly on transmission and the difference between latent TB infection and TB disease.

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Outbreak Investigation Interviewing

Conducting TB interviews under outbreak circumstances provides a special challenge. While the objectives and communication skills remain the same for all TB interviews, the situations under which outbreak interviews occur are different.

What Is an Outbreak?

An *outbreak* is a greater-than-normal or greater-than-expected number of individuals infected or diagnosed with suspected or verified TB in a given period of time, or a particular place, or both. This can occur in a community or larger geographic area or as part of a single contact investigation. In the first situation, routine surveillance provides an opportunity to identify outbreaks, since the greater-than-expected number of cases may not be readily available. Delays in reporting, cases occurring in multiple communities or TB control jurisdictions, and the new occurrence of a large number of latent TB infections, which are not reportable in many areas, make outbreak identification a difficult task.

Identifying an Outbreak

Outbreaks may be identified by detecting

- A greater-than-expected rate of *M. tuberculosis* transmission, as defined by health department or institutional standards, e.g., from one index case, through routine interviewing and evaluation of contacts;
- A greater-than-normal rate of skin test conversions as indicated by institutional standards;
- An increase in TB cases noted through surveillance via required reporting of TB suspects and verified cases, and in some instances, latent TB infection; or
- The same strain of TB detected in various locations through analysis of the genetic structure of specific bacteria from multiple patients (restriction fragment length polymorphism [RFLP] analysis).

Outbreak Interviewing Challenges

In any contact investigation, the TB interview is the first step in identifying all contacts at risk of exposure and transmission to others. However, unique challenges in outbreaks can slow this process, including a greater number of interviews and numerous follow-up interviews of the same index patients to gain additional information. Other issues include

- Having multiple index patients; however, these links may not be evident at first as infected patients who are linked to each other;

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- Contacts not being linked through the "obvious" and usual settings such as home, work, or school;
- Links that are difficult to establish due to illicit activities;
- Occurrence of TB disease in individuals not required to be interviewed (e.g., extrapulmonary cases). Subsequently, links to a source case and his or her infected contacts may not occur; or
- Index patients' inability or unwillingness to name contacts and where they can be located.

Conducting the Outbreak Interview

Most outbreaks are identified after routine TB interview data have been collected. The analysis of the routine interview data to conduct subsequent interviews and re-interviews requires a different approach. However, comparisons of named contacts and places that patients frequent can yield similar data. For example, several persons with TB or infected contacts may commonly mention one person as a priority contact; this individual may be the source case. A follow-up interview with this individual should be done to determine if there are other contacts who have not been identified. Use of a common place to focus the nature of contact identification can assist in identifying other possible priority contacts. Follow-up interviews can occur as information becomes available and is analyzed. The focus of these interviews, however, may be more specific than previous interviews.

Interviewers should be prepared to provide extensive education about outbreaks in a congregate setting. If an outbreak has been detected and additional patients are being interviewed, the interviewer should explain to these patients, as appropriate, about possible media and press attention that may occur in connection with this outbreak. There may also need to be explanations about possible negative attitudes of those being tested, particularly in a workplace, where speculation about the source case (i.e., the index patient) will occur. The interviewer should acknowledge that a breach in confidentiality by others may occur; however, the health department's dedication to maintaining confidentiality under all circumstances will be maintained.

Congregate-Setting Investigations and Interviews

Commonly identified places should be prioritized and investigated further through a congregate-setting investigation per health department guidelines. Key to these on-site investigations is the identification of additional priority contacts. This is also the procedure in a standard contact investigation in which a congregate-setting investigation would take place. Prioritization entails looking for places having the likelihood of the highest chances for transmission, i.e., where the index patient(s) spent the most time, and where high priority contacts may be.

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Interviewing Priority Contacts

In an outbreak scenario, individuals identified as priority contacts may also become the subjects of interviews due the high rate of transmission. This will routinely occur if the contact has developed active TB. However, if transmission is high or seems to be unusual for the identified circumstances in the congregate setting, even with infection, not disease, contacts should be interviewed. Interviews of an infected contact should include

- Review of tuberculin skin test result, latent TB infection, and TB disease history. This history will assist in determining whether the contact has been *recently* infected or not;
- Places in which, and persons with whom, he or she spends prolonged periods of time. This may eventually lead to determining if the contact has been infected by the identified index case or another case;
- Asking who the contact knows who has TB or TB-like symptoms; listing the symptoms should help identify others with TB. If the contact names the index patient, further questioning about the index patient's whereabouts, lifestyle, and other potential contacts can be explored. However, it is important that this be done without confirming the identity of the index patient. The interviewer can also inquire about any other persons' whereabouts, symptoms, and lifestyle mentioned during the interview so as not to appear to focus on the index patient; and
- Discussion with the contact about people with whom he or she shares drugs and alcohol, and where, if applicable. Acknowledging the sensitivity of this line of questioning and reiterating confidentiality can assist in obtaining this information.

The purpose of this type of interviewing is to further identify contacts and other places that the index case has not previously mentioned that can provide information for further investigation. This needs to be done without revealing the name of the index patient(s). In order to find out the most accurate information about where transmission occurred, it is critical that both skin test positive and negative contacts be interviewed, if possible. Deciding which contacts should be interviewed can be facilitated through network analysis, discussed in the next section.

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Social Networks

Outbreak investigations may focus on congregate settings as sites for transmission. Investigations must also look at other common links between multiple index patients and places. The social network is a linkage of persons and places where *M. tuberculosis* is spread via shared air space. The analysis of the network can help identify important contacts, (i.e., those most likely to be infected). Social network analysis is best accomplished by someone who has access to multiple pieces of data collected in TB interviews of cases and contacts. Once links are established, including analysis of all priority contacts' skin test results and medical examinations, additional interviews can be prioritized. For example, if a group of priority contacts were identified as having been exposed under similar circumstances, only a particular segment of the network may have skin test conversions. These contacts would be considered high priority for further, more extensive interviewing. In this situation, the re-interview should concentrate on any other exposure factors that may have caused additional risk for infection (e.g., substance abuse). In another example, a place where drug use takes place is an exposure environment. However, this environment is one that neither the contacts nor the index patient may mention during an interview. With further probing in a re-interview, this place may be mentioned if the contact realizes that the interviewer knows of the place and what occurs there.

Identifying Social Networks

Determining that *M. tuberculosis* has been transmitted to others can occur several months or longer after an index case is reported. The report of a case may be postponed due to a delay in seeking medical care until months after the patient becomes symptomatic. The interviewer should keep in mind the need to evaluate contacts exposed during the infectious period and all of the ways in which outbreaks can be uncovered. In this way, common exposure settings should be identified as follows:

- Analyzing the data collection forms from various interviews should note common locations of exposure including work, school, and social settings. The data should also be analyzed for commonly named contacts (i.e., persons named by multiple cases). Actual names may not all be the same, as some patients may identify contacts by nicknames, a first name, or by physical description. Sort cases by first name and look for persons who may be mentioned several times (e.g., Dave, David, Davey or Rich, Richie, Ricco, Richard, Dick).
- Re-interviewing the index case(s) involved and appropriate congregate setting personnel; if the index case is deceased, an appropriate proxy should be identified.
- Contacting other health departments from areas in which index cases, contacts, or both may spend time.

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Further details can be noted and field visits made to common exposure sites. The field visits should be done per health department guidelines on congregate-setting investigations. However, if the congregate setting is social in nature, it may take the interviewer several visits to determine the pattern of social mixing, who frequents the setting, and who are the appropriate individuals from whom to gain additional information. Again, this process should be completed while only revealing the name of the index patient per health department standards of practice. In most cases, this is done when the patient's identity will help to focus the investigation appropriately.

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Outbreak Interviewing Skills

During outbreak interviewing, it is imperative for the interviewer to

- Clearly educate the index patient on the importance of describing exposure settings;
- Reiterate to the index patient that his or her confidentiality will be maintained by the health department personnel and those involved in the locations of investigation;
- Probe for nontraditional exposure settings in addition to the traditional ones; these should include living quarters, work (both paid and voluntary), school, social and recreational settings (e.g., bars, "hang-outs," clubs, sporting events, areas of drug use, if substance abuse history is probable), and regular travel locations;
- Question the patient about who frequents exposure settings, and gain as much identifying information about the priority contacts as possible, even if this does not include names, but merely physical descriptions. Questions should also include inquiries about where the patient stays or sleeps, if not at the mailing address, sex partners, and people with whom drugs are used; and
- Ask the index case about who may provide further information about priority contacts.

RFLP analysis may also be part of the investigation. This is because TB bacteria have a unique genetic pattern that can be traced to the one or more persons who carry the same strain of bacteria. Access to this type of information is very helpful in finding related cases. These contacts may not know or identify each other in an interview, but may have a common link through a person or place.

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Summary

While all TB interviews have the same objectives, a different strategy may be required for each patient. The patient's lifestyle and the cues the patient provides can assist the interviewer in determining how to modify the approach for each patient. The circumstances under which interviews occur should also be considered when formulating an interviewing strategy. These patient and interview circumstances can be addressed through

- Providing continuous patient education and asking for patient questions;
- Reinforcing confidentiality;
- Addressing pressing life concerns;
- Assessing verbal and nonverbal cues;
- Identifying and using an appropriate proxy; and
- Using social networks to identify additional index patients and contacts.

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Case Presentations

The following case presentations demonstrate concepts from this module. You may review them with your supervisor if you have questions.

Case 1

Part 1 – Barbara is a 41-year-old woman who was diagnosed with TB while in jail. You need to interview her in the hospital to which she was transferred. The medical record review indicates that Barbara has a history of crack and cocaine use. The interview is difficult to conduct as Barbara appears tired and has little eye contact with you. Also, as indicated in her record, she is experiencing withdrawal symptoms. While Barbara does not have many questions about TB, she verifies most of the medical and personal information you provide. When you try to elicit contacts, Barbara becomes defensive and asks why you need to know all of this information.

How do you deal with Barbara's concern about contact identification?

Explanation: Even though Barbara has been cooperative thus far, you have come to a critical and difficult point in the interview. Although the explanation of the purpose of the TB interview for identifying contacts should come at the beginning of the interview, this purpose should be reiterated once again prior to asking about contacts. You should also acknowledge to Barbara, through the use of reflection, that she seems tired and worried about her confidentiality. You should also acknowledge that the interview has been a long process for her.

Part 2 – Once you explain to Barbara again about the reason for identifying contacts, she states that she is willing to continue with the interview. As you ask questions, Barbara offers very little information about her contacts. She provides no names or just first names and little or no address information. She fidgets in her chair and has not mentioned where exposure has occurred.

Is the contact information you have received enough to work with? If not, how can you obtain more detailed information?

Explanation: Barbara appears nervous. She has not given enough information to allow you to end the contact identification process. At this point, you should mention to Barbara that while it is difficult to name people she may have exposed to TB, you need their names and where to find them so that they can be tested for TB and be evaluated by a doctor. Barbara may also be fearful of you finding out about illicit activities she was involved in during the infectious period. Even though she may not have stated her fear directly, you should reassure her that you are only concerned about the well-being of those individuals that may have been exposed to TB and not the nature of the activities in which they are involved.

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Part 3 – After you explain the process and importance of contact identification again to Barbara, she agrees to give you some more contact information. However, she still claims to only know first names or nicknames of many of her contacts, and states that she has no mailing addresses. The contacts Barbara names outside of her household are individuals she has been involved with during drug use or transactions.

How should you proceed with the contact elicitation process from here? What other information may help you?

Explanation: Asking as much information as possible about the contacts will assist the healthcare worker who will go into the field to locate them. You should ask Barbara for physical descriptions and distinguishing characteristics of her contacts and descriptions of the locations in which she meets them, including times when she meets them.

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Case 2

Part 1 – Joey is a 3-year-old boy who was diagnosed with pulmonary TB. You were asked to interview his mother, Ms. Jones, as part of a source case investigation. Joey is under the care of a private doctor who referred him to the health department. Ms. Jones is confused about why you are only looking for who transmitted TB to her son. She also wants to know why Joey should not be isolated so that he will not infect others. The doctor seemed unconcerned about this and she is worried, as there is another child at home.

What should you say to Ms. Jones regarding her concerns?

Explanation: Part of the interview process is to educate the patient on the reasons for the TB interview and answer any TB-related questions the patient may have. Ms. Jones should be told why a source case investigation is being conducted and why you are trying to find out who may have transmitted TB to her son. It is important that Ms. Jones understand that young children with TB are not usually able to spread infection and, therefore, do not need to be isolated. Also, she should understand that evidence of TB disease in a young child suggests that he has been infected recently and that you can potentially find the source of her son's disease, who needs to be treated as well. Reassure Ms. Jones that you are conducting this investigation not to lay blame on anyone, but to provide medical attention to the source case so that he or she can get well and not infect others, including anyone else close to her or to Joey.

Part 2 – After Ms. Jones has understood the purpose of the interview and its outcomes, she is willing to provide you with information that you need. Your review of the patient's record shows that Ms. Jones and her other child have negative tuberculin skin test results and are asymptomatic.

In order to assess where exposure to TB disease may have occurred, what types of locations and people would you want to ask Joey's mother about?

Explanation: You should ask Ms. Jones where Joey spends time. To assist her with thinking of places, ask her about daycare centers, play or activity groups, and relatives' and friends' homes. You should ask about people Joey spends time with, including parents or guardians and relatives or friends who come to the house. Also, ask who has come to the house and stayed for prolonged periods of time in the past few months. In addition to regular visitors, this should also include those who have had extended contact with Joey. Finally, ask Ms. Jones about any people she knows who have had TB or TB symptoms, particularly cough. Giving Ms. Jones a time frame would provide a reference to guide her in answering this question. Consult your health department guidelines for a time frame used to elicit contacts for source case investigations.

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Case 3

Part 1 – A small local hospital has contacted your health department. Four nurses, who undergo annual tuberculin skin testing, have tested positive this year. This is a highly unusual number of skin test conversions in this facility. The hospital reports that none of the nurses have TB disease. There have also not been any known TB cases in the hospital in the past several years.

What should you do as the TB interviewer in this situation?

Explanation: Even though these nurses are not infectious, the fact of their recent skin test conversions in a high-risk setting makes it important to do an interview with each of them. You also need to ask two questions: 1) Have the skin testing protocols and methods in the hospital changed recently? 2) Has there been a change in the hospital staff who are regularly tested?

Part 2 – After finding out that the skin testing procedures and staff have not changed, you decide to interview each of the nurses separately. You have confirmed that they have indeed recently tested positive for latent TB infection (LTBI) and do not have TB disease. You have also obtained documentation of the nurses' previously negative skin test results.

Since these are healthcare workers, what kind of information should you provide regarding TB and this interview?

Explanation: Even though the nurses are healthcare workers, you should still determine their level of TB knowledge. If needed, you should explain the difference between latent TB infection and TB disease and why completing treatment is important. Each nurse should also understand why these interviews are being conducted. The reason is that the hospital had observed an unusually high rate of new skin test conversions, indicative of TB transmission, and wants to 1) find the probable source case, 2) see if all of the people being interviewed are linked in some way, and 3) prevent further TB transmission.

Part 3 – After the nurses receive the education, you are ready to identify associates and exposure settings.

What questions should you ask to gather contact information?

Explanation: You should ask about anyone that they know who has TB or may have been ill with symptoms consistent with TB. You should also ask about with whom and where they spend time frequently, including home, work, school, social, and congregate settings.

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Part 4 – After all of the interviews are completed, you analyze your interview data. You see that none of the nurses name the same associates nor know anyone likely to have TB. All four nurses do "moonlighting" work at the same nursing home. However, they all work different shifts and on different days.

What should be done with this information, what additional questions should be asked, and should further interviews be done?

Explanation: Since a substantial amount of information was collected from the nurses, you may not want to re-interview them at this time, but may need to do so later. You should conduct an investigation in the commonly named nursing home, since it may be the place of common exposure to a source case, who remains untreated. Further interviews may arise from this setting, if a case of infectious TB is discovered. In the congregate setting you should find out 1) what the nurses' routines are, 2) which patients they care for, and 3) the locations in which they work.

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Review Questions

Complete these questions to review concepts from this module. The answers are on page 24.

1. During an interviewer's discussion about a work site investigation, the interviewer should tell the patient that limited information may be shared about the TB exposure with whom?
   a. No one
   b. The patient's co-workers
   c. His or her contacts
   d. A high-level site manager, if necessary to focus the investigation

2. If a patient reveals that he or she does not hold a valid visa for being in the country, what should the interviewer do?
   a. Continue the interview and, later, report the patient to the appropriate authorities
   b. Tell the patient you will refer him/her to a lawyer for assistance
   c. Tell the patient about the consequences of his illegal status
   d. Tell the patient that his visa status is not important for the purpose of the interview and that it is not the health department's concern; identifying contacts is the concern

3. What will assist the interviewer to assess the patient's fear, discomfort, hesitance, and lack of understanding?
   a. Nonverbal cues
   b. Proxy
   c. Interpreter
   d. Medical record

4. If a patient frequently discusses other priorities during the interview, what should the interviewer do?
   a. Stop the interview and try to resolve the issue
   b. Ignore the patient's diversions and move ahead with the interview
   c. Acknowledge the issue and state that nothing can be done about it
   d. Acknowledge the issue, work through to a solution, and resume the interview

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5. In which of these circumstances should a proxy not be used?
   Patient is:
   a. Deceased
   b. Unable to speak the language of the interviewer
   c. Physically unable to adequately communicate
   d. Very young

6. In which circumstance would a contact or source case investigation not be conducted?
   a. 2-year-old child with latent TB infection
   b. Adult with an abnormal chest x-ray
   c. Adult with cavitary TB
   d. Prison in which 25% of employees have had recent skin test conversions

7. What piece of information, routinely collected on the TB interview data form, can be analyzed to find links between index patients and infected contacts?
   a. Exposure settings
   b. Names of priority contacts
   c. Address information
   d. All of the above

8. Why may an infected contact be interviewed in a contact investigation?
   a. To find out to whom the infected contact may have transmitted *M. tuberculosis*
   b. To identify a common exposure setting between the infected contact and the index case
   c. Because it is recommended that ALL infected contacts are interviewed
   d. To convince the infected contact not to reveal information about index case

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Review Questions Answer Key

Answers are in bold.

1. During an interviewer's discussion about a work site investigation, the interviewer should tell the patient that limited information may be shared about the TB exposure with whom?
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   c. Tell the patient about the consequences of his illegal status
   d. Tell the patient that his or her visa status is not important for the purpose of the interview and that it is not the health department's concern; identifying contacts is the concern

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Glossary

Associate – a person who has been identified by the index patient in a source case investigation as someone with whom he or she spends prolonged, frequent time. A person who is somehow affiliated with a patient who has noninfectious tuberculosis or another contact, often used in connection with source-case investigations.

Outbreak – a greater-than-normal or greater-than-expected number of individuals infected or diagnosed with suspected or verified TB in a given period of time or a particular place.

Proxy – a person who is interviewed in the place of the index patient; proxies can be family members or close friends. A proxy is used if the patient is deceased, physically or mentally hindered, very young, uncooperative, or unable to be located.

Restriction fragment length polymorphism (RFLP) analysis – A method of DNA fingerprinting, which can be used to identify specific strains of *M. tuberculosis* and, thus, track TB transmission during outbreaks.

Social network – linkage of persons or places where TB is spread through shared air space and common ties (e.g., social) amongst the persons and settings involved.

Social network analysis – looking at routinely collected interview data to find common links amongst both cases and infected persons; these links may be persons or places.

Source case – a person with infectious TB disease who is responsible for spreading *M. tuberculosis* to another person or persons.

Source case investigation – the process of conducting a public health investigation to determine who may have transmitted *M. tuberculosis* to a patient when recent transmission is reported. Source case investigations can be applied to both recent transmissions in infected adults and children and for disease in very young children.

Undocumented – the term used to describe a person who is not in the country on a valid visa.

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American Lung Association
Curriculum: Extended Disease Control Investigator Training (Trainer's Manual)

California Department of Health Services
TB Interviewing Course Materials

Centers for Disease Control and Prevention, Division of Tuberculosis Elimination
Conducting a TB Interview (Videotape)

Centers for Disease Control and Prevention, Division of Tuberculosis Elimination
Effective Tuberculosis Interviews: A Course on Communication Skills (Trainer's and Participant's Manuals)

Centers for Disease Control and Prevention. Guidelines for the investigation of contacts of persons with infectious tuberculosis. Recommendations from the National Tuberculosis Controllers Association and CDC. MMWR 2005.

Centers for Disease Control and Prevention, Division of Tuberculosis Elimination
Self-Study Modules on Tuberculosis: Module 6 – Contact Investigations for Tuberculosis

Centers for Disease Control and Prevention, National Network of STD/HIV Prevention Training Centers, Core Training Programs: Partner Services and Program Support

Centers for Disease Control and Prevention, Division of HIV/AIDS Prevention
Training Guide for HIV Partner Counseling and Referral Services

Emory University
Lost and Found: The Case of Mr. Norwood - A Video to Build Communication Skills for Healthcare Providers (Videotape and Trainer's Manual)

Francis J. Curry National Tuberculosis Center
Effective TB Interviewing Course (Training materials)

Francis J. Curry National Tuberculosis Center
Making the Connection: An Introduction to Interpretation Skills for TB Control

Massachusetts Department of Public Health
Contact Tracing and Investigation of Tuberculosis (Slide set)

New Jersey Medical School National Tuberculosis Center

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Performance Guidelines for Contact Investigation: The TB Interview

New Jersey Medical School National Tuberculosis Center
TB Interviewing for Contact Investigation: A Practical Resource for the Healthcare Worker

New Jersey Medical School National Tuberculosis Center
TB Simulated Patients: A Training Resource for the Contact Investigation Interview

New York City Department of Health
Contact Investigation Communication Skills Workshop (Exercises)

Texas Center for Infectious Diseases/Texas Department of Health
Contact Investigation (Policy handbook)

Wisconsin Department of Public Health
Conducting Comprehensive Contact and Source Case Investigation (Procedure manual)

Resource List

The following resources and organizations can provide additional education and training information related to TB and other topics addressed in the TB interviewing educational materials:

Centers for Disease Control and Prevention (CDC)

Division of Tuberculosis Elimination (DTBE)
1600 Clifton Rd., NE
Mail Stop E-10
Atlanta, Georgia 30333
1-800-CDC-INFO (1-800-232-4636)
http://www.cdc.gov/tb
The mission of the Division of Tuberculosis Elimination (DTBE) is to provide leadership in preventing, controlling, and eventually eliminating tuberculosis (TB) from the United States, in collaboration with partners at the community, state, and international levels.

Division of HIV/AIDS Prevention
1600 Clifton Rd., NE
Mail Stop E-49
Atlanta, Georgia 30333
1-800-CDC-INFO (1-800-232-4636)
http://www.cdc.gov/hiv CDC's HIV mission is to prevent HIV infection and reduce the incidence of HIV-related illness and death, in collaboration with community, state, national, and international partners.

Division of Sexually Transmitted Diseases
1600 Clifton Rd., NE
Mail Stop E-02
Atlanta, Georgia 30329
1-800-CDC-INFO (1-800-232-4636)
http://www.cdc.gov/std
The Division of STD Prevention provides national leadership through research, policy development, and support of effective services to prevent sexually transmitted diseases (including HIV infection) and their complications such as enhanced HIV transmission, infertility, adverse outcomes of pregnancy, and reproductive tract cancer.

Resource List

Centers for Disease Control and Prevention (CDC) National Prevention Information Network (NPIN)
P.O. Box 6003
Rockville, MD 20849-6003
1-800-458-5231
http://www.cdcnpin.org/scripts/index.asp
The CDC National Prevention Information Network (NPIN) is the U.S. reference, referral, and distribution service for information on HIV/AIDS, sexually transmitted diseases (STDs), and tuberculosis (TB). NPIN produces, collects, catalogs, processes, stocks, and disseminates materials and information on HIV/AIDS, STDs, and TB to organizations and people working in those disease fields in local, state, national, and international settings.

Centers for Disease Control and Prevention (CDC) National Prevention Information Network (NPIN) Tuberculosis and Education and Training Resource Guide
http://www.cdcnpin.org/scripts/tb/guide/toc.asp
The Tuberculosis Education and Training Resource Guide was developed as a cooperative effort between the Centers for Disease Control and Prevention (CDC) National Prevention Information Network (NPIN) and the CDC Division of Tuberculosis Elimination (DTBE).

TB Education and Training Resources Website
http://www.findtbresources.org
Sponsored by the Centers for Disease Control and Prevention (CDC), the TB Education and Training Resources Website includes a searchable, comprehensive database of materials from numerous national and international organizations. At this "one-stop" site of TB education and training resources, you can find materials to suit your needs by selecting parameters such as language, target audience, and format.

Regional Training and Medical Consultation Centers

The Centers for Disease Control and Prevention, Division of Tuberculosis Elimination funds four Regional Training and Medical Consultation Centers (RTMCCs). The primary purpose of each RTMCC is to

- provide training and technical assistance to increase human resource development in TB programs
- develop TB educational materials, and
- provide medical consultation to TB programs and medical providers.

Resource List

Francis J. Curry National Tuberculosis Center

FRANCIS J. CURRY NATIONAL TUBERCULOSIS CENTER

3180 18th Street, Suite 101
San Francisco, CA 94110-2028
415-502-4600 (Phone)
415-502-4620 (Fax)
tbcenter@nationaltbcenter.edu (E-mail)
www.nationaltbcenter.edu (website)

Heartland National Tuberculosis Center

THE UNIVERSITY OF TEXAS HEALTH CENTER AT TYLER
HEARTLAND NATIONAL TB CENTER
A PARTNERSHIP OF UT HEALTH CENTER AND TCID

2303 SE Military Drive,
San Antonio, TX 78223-3542
800-TEX-LUNG (800-839-5864) (Phone)
210-531-4500 (Fax)
http://www.heartlandntbc.org (website)

Northeastern Regional Training and Medical Consultation Consortium

NEW JERSEY MEDICAL SCHOOL
GLOBAL TUBERCULOSIS INSTITUTE

225 Warren Street
Second Floor East Wing
Newark, NJ 07103
973-972-3270 (Phone)
800-482-3627 (Toll-Free)
973-972-3268 (Fax)
www.umdnj.edu/globaltb (website)

Southeastern National Tuberculosis Center

Southeastern National Tuberculosis Center
SHARE • LEARN • CURE

1329 SW 16th Street
Room 5187
Gainesville, FL 32608
Mailing Address:
PO Box 103600
Gainesville, FL 32610-3600
352-265-7682 (Phone)
352-265-7683 (Fax)
http://sntc.medicine.ufl.edu/ (website)

Resource List

Special Populations Resources

EthnoMed
http://www.ethnomed.org
EthnoMed is a joint project of the University of Washington Health Sciences Library and the Harborview Medical Center's Community House Calls Program. EthnoMed is a website containing medical and cultural information on immigrant and refugee groups. It contains information specific to groups in the Seattle area, but much of the cultural and health information is of interest and applicable to other geographic areas as well.

Office of Minority Health Resource Center
P.O. Box 37337
Washington, D.C. 20013-7337
800-444-6472
http://www.omhrc.gov
The mission of the Office of Minority Health is to improve and protect the health of racial and ethnic minority populations through the development of health policies and programs that will eliminate health disparities.

Health Resources and Services Administration
http://www.hrsa.gov/culturalcompetence/
This Health Resources and Services Administration site exists to provide culturally and linguistically appropriate, high-quality, comprehensive, and coordinated primary and preventive care developed and implemented at the community level. This site provides tools and resources aimed at cultural competency.

The François-Xavier Bagnoud Center
AIDS Education and Training Centers (AETC) National Resource Center
30 Bergen Street
PO Box 1709
Newark, NJ 07101-1709
973-972-0410 / 1-800-362-0071
http://www.aidsetc.org/
The AIDS Education and Training Centers National Resource Center works to increases the number of healthcare providers who are effectively educated and motivated to counsel, diagnose, treat, and medically manage individuals with HIV infection, and prevent high-risk behaviors that lead to HIV transmission.

Resource List

The Migrant Clinicians Network (MCN) Clinical Education Program
P.O. Box 164285
Austin, TX 78716
(512) 327-2017
http://www.migrantclinician.org
The Migrant Clinicians Network is committed to providing high-quality continuing education to healthcare providers serving migrant farmworkers. MCN's comprehensive clinical education program helps to develop excellence in practice, clinical leadership, and dissemination of best models and practices.