TUBERCULOSIS EDUCATION AND THE CONGREGATE SETTING CONTACT INVESTIGATION:
A RESOURCE FOR THE PUBLIC HEALTH WORKER

New Jersey Medical School
National Tuberculosis Center
A Founding Component of the International Center for Public Health
225 Warren Street, 1st Floor, West Wing • PO Box 1709
Newark, NJ 07101-1709
(973) 972-0979 • http://www.umdnj.edu/ntbcweb
We would like to thank the following individuals for their valuable contributions to this resource:

Jocelyn Denis
June Hare
Alfred Paspe
Khalil Sabu Rashidi
Patrick Reid

New Jersey Medical School National Tuberculosis Center, Newark, New Jersey

Patty Powers
New Jersey Department of Health and Senior Services, Trenton, New Jersey

This resource contains material adapted from the Centers for Disease Control & Prevention’s Tuberculosis: Get the Facts and Questions and Answers about TB.

Resource developed by:
Paul M. Jensen
Eileen Napolitano
Mark Wolman

Graphic Design by Judith Rew

All material in this document is in the public domain and may be used and reprinted without permission. Citation, however, is appreciated.


The New Jersey Medical School National Tuberculosis Center is a joint project of the UMDNJ-New Jersey Medical School and the New Jersey Department of Health and Senior Services. Funding is provided in part by a cooperative agreement from the Centers for Disease Control and Prevention, Division of Tuberculosis Elimination.
Table of Contents

Tuberculosis Education and the Congregate Setting Contact Investigation: A Resource for the Public Health Worker

- Background

Planning the TB Education Session
- Making Contact
- Needs Assessment
- Needs Accommodation

Conducting the TB Education Session
- Patient Confidentiality
- Objectives
- Talking Points
- Evaluation
- Vocabulary
- Frequently Asked Questions

Tuberculosis: Get the Facts

Presentation Slides
BACKGROUND

The tuberculosis (TB) congregate setting contact investigation is defined as a contact investigation conducted in a public setting where people assemble, such as a school, work place, correctional facility, or drug treatment center. The objective of this investigation is to determine the extent of TB transmission within a congregate setting by identifying, testing, and (if necessary) treating all high-priority contacts to the presenting patient, thereby protecting the public health. The success of any TB contact investigation relies on the informed cooperation of all contacts so identified.

Prior to skin testing contacts, every congregate setting contact investigation should include an on-site, group TB education session. While this session will immediately benefit high-priority contacts who require TST, it can also benefit lower-priority contacts and others for whom TST is not immediately advised. The purpose of this education session, like all TB education sessions, is to disseminate accurate information about TB, including transmission, latent infection, disease, testing, and treatment recommendations. However, there is an underlying purpose unique to providing TB education in the congregate setting contact investigation: a presenter’s role in this case is also to dispel any fear associated with a “TB outbreak.” A clear, focused TB education session will help to dispel this fear and encourage high-priority contacts to undergo TST when advised.

This resource was developed for use by public health workers who provide TB education in congregate setting contact investigations. In addition to explaining how to effectively plan and conduct a successful TB education session, it contains the following:

- PowerPoint® presentation on the basics of TB
- List of TB-related terms, defined appropriately for lay audiences
- Frequently-asked-questions (FAQ) sheet specific to contact investigations
- Pull-out TB fact sheet
- Evaluation to assess the effectiveness of the TB education session
PLANNING THE TB EDUCATION SESSION

TIP
Schedule the TB education session and the administration of TST as close together as possible. Avoid scheduling the two events around a weekend.

MAKING CONTACT
The first step in planning the TB education session is to identify a managerial staff member (e.g., school principal, school nurse, supervisor, etc.) from the congregate setting facility to serve as your contact person for planning the session. Arrange for a private, face-to-face meeting with this person.

In this meeting:

Provide basic TB education, focusing on infectiousness, transmission, testing, and treatment. Make this education relevant to the details of the case, and explain the contact investigation plan, i.e., that TST will initially be limited to high-priority contacts. Define all terms, such as suspect case versus verified case, and high-priority contact versus low-priority contact.

Explain the importance of patient confidentiality, and that information regarding the patient will be shared strictly on a need-to-know basis. Make it clear that regardless of whether the presenting patient’s identity is known to others in the congregate setting, he or she must not disclose any information about the patient, including age, sex, or any other identifiers. Stress the rule: neither confirm nor deny any information regarding the patient’s identity.

Set a date and time for the TB education session. Make sure the session is scheduled to take place before contacts undergo TST, as your presentation will discuss the rationale for testing. Explain that attendance is recommended for high-priority contacts but open to everyone in the congregate setting.

NEEDS ASSESSMENT
Use your time in this meeting to conduct an informal needs assessment, which is the gathering of information that will allow you to tailor your TB education session to the particular learning needs of your audience. After explaining the purpose of the TB education session, ask which languages your audience speaks and whether any of the participants have special needs that need accommodation, as you may need to arrange for interpretation or other services. If necessary, determine whether the facility has the equipment (e.g., computer, overhead projector, projector screen) needed to carry out the presentation. This information will direct your planning, discussed further below.
**NEEDS ACOMMODATION**

As the TB education session should be tailored for lay audiences, your audience’s education level should not impact the structure or delivery of your presentation. Use the same presentation for all groups and forego medical terminology as a general rule. Your presentation should, however, be linguistically and culturally appropriate. As mentioned above, arrange for appropriate interpretation services, using a certified medical interpreter if possible. Furthermore, learning the basics of healthcare cultural competence will prepare you to sensitively provide instruction to diverse groups, dispel misconceptions, and credibly inform your audience.¹ To properly accommodate audience members with special needs may require collaboration between your health department and the congregate-setting facility, depending on the nature of the need and the extent of your health department’s resources.

Visual aids are an integral part of the presentation, and whether you use PowerPoint®, an overhead projector, or some other tool will also depend on the facility’s technological capabilities and your health department’s resources. In many cases the facility will have all the necessary equipment. If this is the case, request the items you need from them in advance. These might include an overhead projector, projection screen, microphone, computer with PowerPoint software, or easel.

Plan to bring the following items to the TB education session:

- **TB: Get the Facts** or educational other materials from the Centers for Disease Control & Prevention. You can search for and download these materials at [http://www.cdc.gov/nchstp/tb/pubs/pem.htm](http://www.cdc.gov/nchstp/tb/pubs/pem.htm).
- See pages 11 and 12 for a pullout TB facts sheet.
- Presentation materials. If you present at a facility lacking computer projection equipment, transparencies can be created from PowerPoint slides.

Click here to download a TB PowerPoint® slide set.

If possible, arrange to have the healthcare worker(s) handling the presenting patient’s medical care or case management present at the TB education session. Ideally, this will include a nurse or physician to answer clinical questions, and a TB program representative to answer questions regarding legal issues or contact investigation procedures. The makeup of your educational team will depend on what responsibilities individuals hold in your health department.

---

¹ See **TB & Cultural Competency: Notes from the Field**, a debut newsletter from the New Jersey Medical School National Tuberculosis Center. Available at [www.umdnj.edu/ntbcweb](http://www.umdnj.edu/ntbcweb) or by calling Education & Training at (973) 972-0979.
**Conducting the TB Education Session**

**Patient Confidentiality**

When informing the audience that someone in the congregate setting was diagnosed with TB disease, make it clear that his or her identity is confidential. Despite the fact that in many cases the audience will already know the identity of the presenting patient, this does not permit you to discuss or otherwise reveal the patient’s identity. When answering questions neither confirm nor deny any information that might reveal the presenting patient, including identifiers such as the patient’s age or sex. Always refer to the presenting patient as “the patient” or “the individual,” and refrain from using gender-specific pronouns such as “he” or “she.”

**Objectives**

After explaining the importance of patient confidentiality, tell the audience what they will learn during the course of the TB education session. For example:

“By the end of the educational session, you will be able to explain:"

- How TB is spread from one person to another
- The difference between TB infection and TB disease
- Why the health department conducts a “contact investigation"
- Why it is important for high-priority contacts to undergo TST
- Why it is important for those with a positive TST to complete treatment for latent TB infection (LTBI)

In addition to stating these learning objectives, reassure the audience that healthcare professionals are taking all the necessary steps to protect their health.

**Talking Points**

The body of your presentation should cover the following talking points:

- TB transmission
- TB infection vs. TB disease
- Signs and symptoms of TB disease
- The purpose of the congregate setting contact investigation
- Skin testing and evaluation of high-priority contacts
- Review of key points

Allow for a thorough question-and-answer period at the end of the education session, but also invite questions throughout the presentation. To field questions as they arise will benefit you by providing ongoing feedback throughout the presentation. Use this feedback to gauge the audience’s understanding and to evaluate the clarity of your presentation as you proceed from one point to the next.
EVALUATION

At the end of the session, have your audience complete a short evaluation. This evaluation will provide you with constructive feedback regarding the TB education session.

Click here for evaluation form.

VOCABULARY

Refrain from using medical terminology, as most TB-related terms are certain to be unfamiliar to lay audiences. When defining these terms, use clear, simple language. Examples are given below.

*Mycobacterium tuberculosis* – TB germ
*Mantoux tuberculin skin test* – test that shows if TB germs got in (infected) a person’s body, either recently or in the past
*Sputum* – phlegm or mucus; tested to see if a person has TB
*Transmission* – how TB is spread from person to person

**TB infection** – having a small number of TB germs inside the body without feeling sick. People with TB infection cannot spread the germs to other people.

**TB disease** – having a lot of TB germs inside the body, which can make you feel sick and may be contagious

**Smears, cultures** – lab tests that show if TB germs are in the body and if a person can spread TB

**Immunocompromised** – not having a healthy immune system; this makes it hard for a person’s body to fight off infections. People who get TB germs inside their bodies (infection) and who are immunocompromised can get TB disease more easily than people who have healthy immune systems. HIV/AIDS, cancer chemotherapy, steroid use, organ transplantation, kidney dialysis, and other conditions can make a person immunocompromised

**TB exposure** – having been around someone with TB. Exposure does not mean that a person definitely breathed in TB germs. A health department will decide who has had enough exposure to have possibly breathed in TB germs
**Frequently Asked Questions**

Your audience may ask many questions. The following are common questions and suggested answers.

**Q: If my skin test is positive, should I get my family tested too?**

**A:** If your skin test results are positive, a doctor will examine you to see if you have TB disease. If you do not have TB disease, then you cannot spread TB to others, so your family does not need to be tested. If you have TB disease, then your family may need to be tested. The health department will decide who in your family needs to be tested.

**Q: I had BCG in my country and was told that my skin test would always be positive. Why should I still be skin tested?**

**A:** The BCG vaccine does not protect you for your whole life—its effects get weaker as you age. It may still cause a positive skin test reaction, but it is impossible to tell if the positive reaction is caused by BCG or by TB infection. If you had BCG vaccine as a child and now have a positive skin test as an adult, then chances are that TB infection—not BCG—is causing the positive reaction. In fact, many people who have had BCG vaccine test negative for TB infection.

**Q: What if I want to go to my own doctor for testing?**

**A:** You may see your own doctor if you want to. But if you are one of the people who the health department says should be skin tested, then we need to follow up with your doctor on the results of your skin test.

**Q: The guy who sits next to me got skin tested and I didn’t. Why?**

**A:** The health department will skin test only those people it thinks are at highest risk of having breathed in TB germs. We have carefully examined all spaces where TB germs may have spread, and we have decided who to skin test based on this. We also looked at who spent the most time with the patient. We may have to eventually skin test more people, but that will depend on the results of the first round of skin testing.

**Q: I want to be skin tested even though I haven’t been told I should be. Can I get the test done?**

**A:** The health department has carefully determined who needs to be tested. If you still want to be tested, we or your primary care physician can test you.
Q: Don’t most people who get TB have AIDS?
A: It’s true that many people who get TB are also infected with HIV, the virus that causes AIDS. Most people who get TB do not have AIDS, however. Anyone can get TB.

Q: If I shook the TB patient’s hand or used the same water fountain, will I get TB?
A: No. Remember that TB is spread only through the air, and that TB germs do not live on surfaces (e.g., your skin, tables, counter-tops, water fountains, etc).

Q: We all know who the case is. Can’t we just talk openly about him?
A: TB patients have the same right to confidentiality that all of you would have if you were in the same situation. I can’t discuss anything about the patient that would break that confidentiality.
**What is tuberculosis?**

Tuberculosis (TB) is a disease that is spread from person to person through the air. The germs are put into the air when a person with TB disease of the lungs coughs, sneezes, laughs, or sings. TB can affect other parts of the body, but it usually affects the lungs.

**What are the symptoms of TB?**

General symptoms may include feeling weak or sick, experiencing weight loss, fever, chills, and/or night sweats. Symptoms of TB of the lungs may include cough for more than two weeks, chest pain, and coughing up blood. Other symptoms depend on the part of the body that is affected.

**Who gets TB?**

Anyone can get TB, but some people are at higher risk. Those at higher risk include:

- Anyone who shares the same breathing space as a TB patient (such as family members, friends, coworkers)
- Homeless people
- People from countries where TB is more common
- Nursing home residents
- Prisoners
- Alcoholics and injection drug users
- People with health problems such as diabetes, certain types of cancers, and being underweight
- People with HIV infection (the virus that causes AIDS)

**How can I tell if I have TB?**

If you are at higher risk, or if your doctor says you need one, get a TB skin test. If it is positive, you will probably be given other tests to see if you have TB infection or TB disease.

**What is the difference between TB infection and TB disease?**

People with TB disease have TB germs that are actively multiplying in their body, usually in the lungs. They are sick, have symptoms of TB, and may pass TB germs to others until they have been taking TB medicine for about 2 to 3 weeks. Most TB disease can be cured with medicine. But if medicine is not taken correctly, treatment can be difficult or not work at all. People who do not take TB medicine the right way or don’t complete treatment can become very sick and even die.

---

2 Adapted from the Centers for Disease Control and Prevention, Division of Tuberculosis Elimination
People with TB infection have TB germs in their body, but they are not sick because the germs are not actively multiplying. They cannot pass the germ to others. However, these people may develop TB disease in the future. This can happen more easily if they are in one of the high-risk groups listed under “Who gets TB?” People with TB infection are given medicine to prevent them from getting TB disease. This medicine should also be taken the right way to make sure all of the TB germs in the body are killed. If treatment for TB infection is completed the right way, the chances of ever getting TB disease are very low.

What if the test is negative?
A negative test usually means the person does not have TB germs. However, if the person has been around someone with TB, the test may have been done too soon. After being around someone with TB, it may take about 2 to 10 weeks for the TB skin test to react positively. The test may also not show anything if the person’s immune system is not working properly. So your doctor may ask you to come back for another skin test in a few weeks or have other tests done in the meantime.

How can I get the TB skin test?
You can get a TB skin test from your doctor or local health department. Your local health department or public clinic will give you the test free of charge.

How is the skin test given?
A small needle is used to put some testing liquid just under the skin. This is usually done on the inside of the arm. The person getting the test must return in 2 to 3 days (48 to 72 hours) to see if there is a reaction to the test. If there is a reaction, the size of the reaction is measured. Only a trained health care worker can read the test results correctly, so it is very important to come back.

What if the test is positive?
A positive reaction usually means the person has breathed in TB germs. It does not always mean that the person has TB disease. Other tests, such as an x-ray, are needed to see if the person has TB disease.

What should I do if I have TB infection or disease?
Get any follow-up test(s) your doctor says you need. Follow your doctor's advice and take the medicine exactly as he or she tells you. Today, TB is easily prevented and cured with medication.

For more information call your local health department.
What is Tuberculosis?
• Tuberculosis is a disease caused by tiny germs that enter your lungs when you breathe them in; It is called “TB” for short
• TB germs usually stay in the lungs, but sometimes they can move to other parts of the body

Facts About TB Germs
• TB germs spread only through the air — the germs die when they land on a surface
• Rays from the sun kill TB germs
• To become infected with TB germs, a person usually needs to share a space with someone sick with TB disease for a period of time (e.g., live, work, or play together)

How are TB Germs Spread?
• When a person with contagious TB disease coughs, sings, sneezes, or laughs, TB germs can be forced from the lungs into the air
• Another person close by breathes in the germs
• If the germs make it into the lungs and are not killed by the body’s immune system, the person becomes “infected”
How are TB Germs NOT Spread?
• Through quick, casual contact, like passing someone on the street
• By sharing utensils or food
• By sharing cigarettes or drinking containers
• By exchanging saliva or other body fluids
• By shaking hands
• Through body contact

TB Infection vs. TB Disease
• There is a difference between TB “infection” and TB “disease.”
• TB infection (LTBI): TB germs stay in your lungs, but they don’t multiply or make you sick
  —TB infection is NOT contagious
• TB disease: TB germs stay in your lungs or move to other parts of your body, multiply, and make you sick
  —TB disease can be contagious

TB Infection vs. TB Disease
• If TB infection is not treated with medication, it can eventually turn into TB disease.
• TB infection can turn into TB disease more easily if a person has HIV, diabetes, or another health problem that makes it hard for the body to fight germs

Signs & Symptoms of TB Disease
• Cough that lasts more than 2 weeks
• Fever
• Night sweats
• Feeling weak and tired
• Losing weight without trying
• Decreased or no appetite
• Chest pains
• Coughing up blood

Treatment for TB Disease
• TB disease is treated with medication (antibiotics) to kill the TB germs
• TB disease is almost always curable, but medication must be taken for a long time, even after you no longer feel sick
• TB disease can be prevented by taking medication when you have TB infection

Contact Investigation - 1
• When a person is found to have TB disease, the health department looks for people who might have been infected with TB germs
• If the health department thinks that you might have been infected with TB germs, it will give you a test, called a TB skin test (TST)
The TB Skin Test (TST) - 1
- A trained nurse will give you the TB skin test
- The TB skin test is simple, safe, and painless
- The TB skin test is mandatory, and will help us protect your health and the health of others

The TB Skin Test (TST) - 2

The TB Skin Test (TST) - 3

The TB Skin Test (TST) - 4
- A “negative” skin test means you probably have not been infected with TB germs.
—A second TB skin test might be required in 3 months to make sure you haven’t been infected with TB germs.
- A “positive” skin test means you have probably been infected with TB germs, but it does not mean you have TB disease
—Other tests (like a chest x-ray) will be needed to see if you have TB disease

The TB Skin Test (TST) - 5
- If the health department finds that you have TB infection, you will be offered treatment to keep you from getting TB disease
- Treatment for TB infection is voluntary, but taking it will help protect your health
- The results of your TB skin test are confidential
- Your name and information about you will be kept confidential

Take-home Message - 1
- TB germs are not easy to spread to others; you usually have to be around a person with TB disease for a period of time to become infected
- If you have been infected with TB germs, this does not mean you have TB disease
<table>
<thead>
<tr>
<th>Take-home Message - 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>The health department will decide if you need to have a TB skin test.</td>
</tr>
<tr>
<td>The TB skin test is mandatory, but is simple, safe, and painless.</td>
</tr>
<tr>
<td>If you have been infected with TB germs, you will be offered treatment to keep you from getting sick with TB disease.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Take-home Message - 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>The health department will keep all information about you—including immigration status—confidential.</td>
</tr>
<tr>
<td>The purpose of giving you the TB skin test and offering you treatment is to protect your health and the health of others.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Department Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you have any questions or concerns, please call &lt;health department, healthcare worker name&gt; at &lt;phone number&gt;, or e-mail at &lt;e-mail address&gt;.</td>
</tr>
<tr>
<td>Your questions and concerns will be kept confidential.</td>
</tr>
</tbody>
</table>