



TUBERCULOSIS EDUCATION AND THE CONGREGATE SETTING CONTACT INVESTIGATION:

A RESOURCE FOR THE PUBLIC HEALTH WORKER



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MEDICAL SCHOOL

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

BACKGROUND

The **tuberculosis (TB) congregate setting contact investigation** is defined as a contact investigation conducted in an environment where a number of people meet or gather and share the same space for either a limited or extended period of time. Some examples of congregate settings include schools, work places, shelters, correctional facilities, hospitals, and child care centers. The objective of this investigation is to determine the extent of TB transmission by medically evaluating, and, if necessary, treating all identified contacts to the index patient.

Prior to evaluating contacts, every congregate setting contact investigation should include an on-site TB education session. While this session will benefit contacts who require medical evaluation, it can also benefit others for whom an evaluation is not immediately recommended. The purpose of the education session is to increase knowledge about TB (e.g., transmission, latent infection, disease,

testing, and treatment recommendations). Additionally, the goal is to provide a rationale for the identification of contacts while reducing any anxiety and worry level associated with a TB exposure.

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 fundamentals of TB
- List of TB-related terms, defined appropriately for lay audiences
- Frequently-asked-questions (FAQ) specific to contact investigations
- Pull-out TB fact sheet
- Evaluation form to assess the effectiveness of the TB education session

PLANNING THE TB EDUCATION SESSION

TIP

Schedule the TB education session and the TB testing as close together as possible. In an effort to avoid anxiety, try not to schedule these two TB control activities with a weekend break in between.

INITIAL STEPS

The first step is to meet with site management (e.g., school principal, supervisor, school nurse, etc.) at the congregate setting. This meeting offers the opportunity to conduct an onsite assessment of the exposure environment, explain the contact investigation process, and stress the importance of providing a TB education session. As such, the meeting can be used to:

- Identify a staff member from the congregate setting to serve as a contact person for planning the session
- Set a date and time for the education session, ensuring the session takes place before the evaluation of contacts
- Explain that everyone in the congregate setting is welcome to attend the session

NEEDS ASSESSMENT

Collect all the information that will allow you to tailor the education session to the particular learning needs of your audience. For example, ask what languages your audience speaks and whether any of the participants have special needs that require accommodation. Determine whether the congregate setting has the necessary equipment (e.g., computer, overhead projector, projector screen) needed to deliver the presentation. Follow-up emails or phone calls may be needed to finalize planning the session.

PLANNING THE TB EDUCATION SESSION

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NEEDS ACCOMMODATION

Since the TB education session should be tailored for lay audiences, the education level of the audience members should not impact the structure or delivery of your presentation. Use the same presentation for all groups and as a general rule, avoid medical terminology. Your presentation should, however, be linguistically and culturally appropriate.¹ To properly accommodate audience members with special needs may require collaboration between your health department and the congregate setting, depending on the nature of the need and the extent of your health department's resources. For example, it may be necessary to arrange for appropriate interpretation services.

EDUCATIONAL TEAM

The make up of your educational team will depend on what responsibilities individuals have in your health department. The team should preferably include a nurse or physician to answer clinical questions, and a TB program representative to answer questions regarding legal issues or the contact investigation process.

VISUAL AIDS

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 technological capabilities of the congregate setting and your health department's resources. In some cases, the necessary equipment will be available from the congregate setting and you can request the items you need 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:

- Educational materials such as TB fact sheets (see pages 11 and 12) or other materials from the Centers for Disease Control & Prevention available at <http://www.cdc.gov/tb>
- Presentation materials. Handouts can be created from PowerPoint® slides if no equipment is available.

[Click here to download Fundamentals of TB PowerPoint® slide set.](#) The PowerPoint® slides may be used as is or modified to reflect individual program needs.

¹ See *Cultural Competency and Tuberculosis Care: A guide for self-study and self assessment*. 2008 New Jersey Medical School Global Tuberculosis Institute. Available at <http://www.umdnj.edu/globaltb/products/tbculturalcompguide.htm> or by calling (973) 972-0979.

CONDUCTING THE TB EDUCATION SESSION

TIP

Referring to the patient consistently without using “he,” “she,” or other identifiers can be difficult and may require practice.

PATIENT CONFIDENTIALITY

When introducing the purpose of the TB education session, reassure the audience that healthcare professionals with expertise in TB are taking all the necessary steps to protect their health. Emphasize the role of the health department in maintaining patient confidentiality. Despite the fact that in many cases the audience will already know the identity of the index patient, this does not allow you to discuss or otherwise reveal the patient’s identity. When answering questions neither confirm nor deny any information that might reveal the index patient, including identifiers such as the patient’s age or gender. Always refer to the index patient as “the patient” or “the individual,” and refrain from using gender-specific pronouns such as “he” or “she.”

OBJECTIVES

Explain to the audience what they will learn during the TB education session. For example: “By the end of the education session, you will understand:”

- How TB is and is not spread
- The difference between TB infection and TB disease

- Why the health department conducts a contact investigation
- Why it is important for identified contacts to be medically evaluated
- Why it is important for those diagnosed with latent TB infection (LTBI) to complete treatment

ADDRESSING QUESTIONS

Allow time for questions and answers. Whether questions are held until the end of the education session or are invited throughout the presentation will depend on individual presentation styles. Addressing questions as they arise can be beneficial by helping 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 form. This evaluation will provide you with constructive feedback regarding the TB education session and may help in the planning and implementation of future sessions.

[Click here for evaluation form.](#)

CONDUCTING THE TB EDUCATION SESSION

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TIP

When presenting the information, use simple language that is easy to understand. If you use too many medical terms, you will confuse your audience and quickly lose their attention.

VOCABULARY

Refrain from using medical terminology, as most TB-related terms are certain to be unfamiliar to lay audiences. If it is necessary to use medical language, give clear and simple definitions for these terms. Examples are given below.

Contact investigation – a process that helps identify who may have been exposed to TB germs and may require medical evaluation.

Infectious – able to spread TB germs. A person who has infectious TB disease puts germs into the air when he or she coughs, sneezes, laughs or sings.

Mycobacterium tuberculosis – TB germ.

Sputum – phlegm or mucus from the lungs.

Tuberculin test – test that shows if a person is infected with TB germs.

Transmission – the act of TB germs spreading 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 cause you to be contagious.

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

TB exposure – having been around someone with TB disease. Exposure does not necessarily mean that a person has been infected with TB germs.

CONDUCTING THE TB EDUCATION SESSION

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TIP

Questions will often be unique to certain types of congregate settings. For example, restaurant employees are often concerned that TB germs can grow on surfaces and contaminate food. When planning the education session, try to anticipate the questions you might receive based on the type of setting.

FREQUENTLY ASKED QUESTIONS

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

Q: The person who sits next to me got tested and I didn't. Why isn't everyone tested?

A: The health department will test only those people it thinks are at highest risk of having breathed in TB germs. We have carefully assessed the congregate setting environment where TB germs may have spread, and we have decided who to test based on this assessment. We also looked at who spent the most time with the index patient.

Q: How were you able to decide who needs to be tested if you cannot reveal the patient's identity?

A: Essential information is obtained from management and the index patient and that helps us decide who gets tested.

Q: Even though I have not been informed I need to be tested, I am concerned about my family. What should I do?

A: Just like you, your family has not been exposed to the index patient. Therefore, they do not need to be tested.

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

A: If your TB test results are positive, you will be medically evaluated to see whether you have TB infection or 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, if anybody, in your family needs to be tested.

CONDUCTING THE TB EDUCATION

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

A: The BCG vaccine does not protect you for your whole life – its effects get weaker as you age. Many people who have had BCG vaccine will test negative for TB infection. However, if you had BCG vaccine as a child and now have a positive TB test as an adult, then chances are that TB infection – not BCG – is causing the positive reaction. There is a blood test that can tell if your TB test is positive from the BCG vaccine or 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 tested, then we need to follow up with your doctor on the results of your TB test.

Q: I want to be 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, your primary care provider can test you.

Q: Don't most people who get TB have AIDS?

A: Anyone can get TB. Most people who get TB do not have AIDS. However, it's true that some people who get TB are also infected with HIV, the virus that causes AIDS.

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, counter-tops, water fountains, etc.). You cannot get TB germs from shaking someone's hand or sharing drinking containers.

Q: We all know who the patient is. Why can't we just talk openly about it?

A: All patients, regardless of their medical diagnosis, have a right to privacy. 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.

TUBERCULOSIS: GET THE FACTS²

What is tuberculosis?

Tuberculosis (TB) is a disease that is spread through the air from one person to another. 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?

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

What is the difference between TB infection and TB disease?

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. People with TB infection are given medicine to prevent them from getting TB disease. If treatment for TB infection is completed the right way, the chances of ever getting TB disease are very low.

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.

Who gets TB disease?

Anyone can get TB. Once you have TB infection, you can become sick with TB disease if you:

- Have HIV infection
- Have been recently infected with TB (in the last 2 years)
- Have other health problems, like diabetes, that make it harder for your body to fight germs
- Abuse alcohol or inject illegal drugs
- Were not treated correctly for TB infection in the past

² Adapted from the Centers for Disease Control and Prevention, Division of Tuberculosis Elimination

TUBERCULOSIS: GET THE FACTS

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How can I tell if I have TB?

There are two tests that can be used to see if a person has TB infection: a skin test or a special TB blood test. If you are at higher risk, or if your doctor suggests you should be tested, get a TB test. If the TB test is positive, you will probably be given other tests to see if you have TB infection or TB disease.

How can I get the TB test?

You can get a TB test from your doctor or local health department.

How are the TB tests given?

For the TB skin test, a small needle is used to put some testing liquid just under the skin. This is usually done on the inside of the arm. After you get the test, you must return in 2 to 3 days to see if there is a reaction to the test. If there is a reaction, the size of the reaction is measured. If your health department does offer the blood test, some of your blood is taken for the test. You will be instructed on how to get the results of your test.

What if the test is negative?

A negative skin 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 skin test to react as positive. 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. A negative blood test usually means you are not infected.

What if the test is positive?

A positive reaction to the skin test or blood test 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 if I had the BCG vaccine?

BCG is a vaccine for TB. This vaccine is not widely used in the United States, but it is often given to infants and small children in other countries where TB is more common. The BCG vaccine does not usually protect adults against TB. You may still get TB infection or TB disease. Even if you have had the BCG vaccine, you will need a TB test to see if you may have TB infection or 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.

PRESENTATION SLIDES

[Click here to download PowerPoint® slides](#)

What You Need to Know About Tuberculosis (TB)

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 are most commonly found in the lungs, but sometimes they can move to other parts of the body
- When you have TB disease of the lungs, you can spread it to other people

How Are TB Germs Spread?



How are TB Germs Spread?

- TB germs are passed through the air when a person who is sick with TB disease coughs, sings, sneezes, or laughs
- To become infected with TB germs, a person usually needs to share air space with someone sick with TB disease (e.g., live, work, or play together)
- The amount of time, the environment, and how sick the person is all contribute to whether or not you get infected
- In most cases, your body is able to fight off the germs

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
- Using public telephones

TB Infection vs. TB Disease

- There is a difference between TB “infection” and TB “disease”
- **TB infection:** TB germs stay in your lungs, but they do not multiply or make you sick
—You cannot pass TB germs to others
- **TB disease:** TB germs stay in your lungs or move to other parts of your body, multiply, and make you sick
—You can pass the TB germs to other people

PRESENTATION SLIDES

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Treatment for TB Infection

- TB infection is treated with medicine, usually for 4-9 months
- If TB **infection** is not treated, it can turn into TB **disease**
- It is important to take all your medicine, even though you don't feel sick

Common Symptoms of TB Disease

- Cough (2-3 weeks or more)
- Coughing up blood
- Chest pains
- Fever
- Night sweats
- Feeling weak and tired
- Losing weight without trying
- Decreased or no appetite
- If you have TB outside the lungs, you may have other symptoms

Treatment for TB Disease

- TB disease is treated with medicine to kill the TB germs
- Usually, the treatment will last for 6-9 months
- TB disease can be cured if the medicine is taken as prescribed, even after you no longer feel sick

Contact Investigation

- When a person is found to have TB **disease**, the health department looks for people who might have been exposed to TB germs
- If the health department thinks that you might have been exposed to TB germs, they will give you a TB test

The TB Test - 1

- Two types of tests can be used to see if a person has TB:
 - A TB skin test
 - A TB blood test
- A trained nurse will give you the TB test
- The TB test is simple and safe
- The TB test is mandatory, and will help us protect your health and the health of others

The TB Test - 2

- A negative test most likely means have not been infected with TB germs
 - A second TB test might be required in 8-10 weeks to ensure you have not been infected with TB germs
- A positive 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

PRESENTATION SLIDES

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The TB Test - 3

- 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
- Your name and the results of your TB test will be kept confidential

Take-home Message - 1

- The health department will decide if you need to have a TB test
- The TB test is mandatory, but is simple, safe, and painless
- The health department will keep all information about you confidential
- The purpose of giving you the TB test and offering you treatment is to protect your health and the health of others

Take-home Message - 2

- TB infection is not the same as TB disease
- It is not easy to spread TB germs to others
- Usually, you 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:
 - Taking medicine will keep you from getting sick with TB disease
- TB can be prevented, treated and cured

Questions?

Frequently Asked Questions

- The person who sits next to me got tested and I didn't. Why isn't everyone tested?
- How were you able to decide who needs to be tested if you cannot reveal the patient's identity?
- Even though I have not been informed I need to be tested, I am concerned about my family. What should I do?
- If my TB test is positive, should I get my family tested too?
- I had BCG in my country and was told that my TB test would always be positive. Why should I still be tested?
- If I shook the TB patient's hand or used the same water fountain, will I get TB?

For Additional Information

- If you have any questions or concerns, please call <health department, healthcare worker name> at <phone number>, or e-mail at <e-mail address>
- Your questions and concerns will be kept confidential