

Tuberculosis



TB is one of the most common diseases. It is important for people with symptoms to get prompt treatment from a health facility. With treatment, TB can be cured, waiting to get treatment can lead to death.

1. Tuberculosis



Session objectives

By the end of this session, participants will be able to:

- Explain what TB is, how it is transmitted and the symptoms to look for.
- Know that anyone can get TB, even if you are HIV positive or HIV negative.
- Know where to seek treatment for TB.
- Understand importance of completing treatment.
- Take steps to prevent TB.



Session guide

1. **Ask:** What are common illnesses in our community? Allow participants to discuss. They should mention tuberculosis (TB), but if they do not, introduce it.
2. **Ask:** What is TB? Allow participants to discuss.
3. **Explain** that TB is a bacterial disease caused by germs that can settle anywhere in the body.
4. **Ask:** How does TB spread from one person to another? Allow participants to discuss.
5. **Explain** that you will read off a possible way TB could be spread. If they think TB is spread this way they should stand. If they think TB is not spread this way, they should remain seated. Do not give answers yet.
 - Crowded places
 - Sharing utensils, food, or water
 - Eating the meat of TB-infected animals
 - Drinking unboiled milk from cattle
 - Kissing
 - Having sexual intercourse
 - Contact with the sweat, urine, or blood of a TB-infected person
 - Exposure to cold air
 - Flies
 - Dust
 - Hereditary
 - Having AIDS

After each possible way, **ask** participants to explain why they are standing or seated.

6. **Ask:** Are there any other ways that you have heard that TB can spread? Allow participants to share other ways. Ask other participants if they agree with this way or not.
7. **Explain** that when a person with TB disease coughs, spits, or sneezes without covering his or her mouth, people nearby can breathe in the air and the germs. When the germs get into the body they

can infect the lungs or other parts of the body. The germs can remain in the air for long periods of time. Direct sunlight kills TB germs in 5 minutes, but they can survive in the dark for a long time. This is why people usually become infected inside buildings or homes.

Share the information from the table below:

Common beliefs about TB	Facts about TB
Attending gatherings or contact with infected people.	Brief exposure to a source of TB rarely infects a person. There is a very small risk of transmission, but if you are sitting in a well-ventilated or open-air space, there is almost no risk of transmission. Day-after-day close contact usually causes infection.
Sharing utensils, food, water, or linens with someone who has TB.	TB is spread by germs in the air from coughing, sneezing, talking, or spitting. Handling an infected person’s bed sheets, books, furniture, or utensils or sharing food or water with an infected person does not spread infection. Brief exposure to a source of TB rarely infects a person. Repeated close contact usually causes infection.
Eating meat from infected animals. Drinking unboiled milk from cattle. Contact with infected animals.	Tuberculosis is not transmitted through meat products, but can be transmitted through unboiled milk and unboiled milk products. Bovine TB infection mostly causes TB in cattle, but it may also infect and cause illness among other animals, including humans. In humans, the bovine TB germ can cause a type of TB that may affect the lungs, lymph nodes, and other parts of the body. It is generally transmitted to humans through drinking milk that has not been boiled or milk products obtained from infected cattle. People can be infected through the air when in close contact with live animals that have bovine TB infection.
Kissing or engaging in sexual activity with someone who has TB.	TB germs are not in saliva but in what is coughed up from inside the lungs. People can get infected when someone with TB disease of the lungs coughs, sneezes, speaks, or spits, which releases thousands of bacteria into the air around them. People breathing the same air for prolonged periods (for example, people living together in the same house) are likely to inhale the bacteria. TB is not spread through kissing or sexual activity, but since sexual partners may live together it is possible that one could infect the other.
Contact with bodily fluids (sweat, urine, blood) of someone who has TB.	People do not get infected with TB through contact with an infected person’s bodily fluids. People get infected when someone with TB disease of the lungs coughs, releasing thousands of germs into the air around them. People breathing the same air for a long time (for example, people living together in the same house) are likely to inhale the germs.

Common beliefs about TB	Facts about TB
Exposure to cold air, taking a cold bath, or wearing light clothes.	TB is spread by germs that are in the air from an infected person who has coughed, sneezed, spit or talked. Low temperatures cannot cause TB infection.
Colds (homa) and pneumonia can lead to TB.	The germs that cause colds and pneumonia are different from those that cause TB. A weakened immune system can increase the chance of developing TB disease in someone already infected with the TB bacteria.
Flies or dust can infect people.	Flies and dust do not transmit TB.
TB is hereditary.	TB is not hereditary. If a member of a family has TB disease and is not treated, other family members who live together may also become infected if no precautionary measures are taken, because they are breathing the same air for prolonged periods of time, not because it was hereditary.
TB can turn into HIV and AIDS.	TB is caused by bacteria and can be cured. TB does not turn into HIV and AIDS. People who have HIV have a weakened immune system, which increases the chance of developing TB disease.

8. **Explain** that TB is one of the most common infections in the world. Many people are infected with TB. There is a difference between being infected with TB and being sick with TB. Most people with a TB infection who have a healthy immune system will never become sick with TB. However, some people with a TB infection do become sick with TB. When people with TB infection become sick with TB, it is called TB disease. TB disease develops when the immune system can no longer fight the TB germs and the TB germs begin to grow quickly. When this happens, people start to have symptoms. The risk that a TB infection will become a TB disease is higher for people with HIV infection or other conditions that weaken the immune system.
9. **Ask:** If one of the ways that TB spreads is through the air, why do only some people become sick with TB disease? Allow participants to share their views, and then explain that TB infection leads to TB disease in people whose ability to fight disease is weak. Such people include malnourished or undernourished people, HIV-positive people, the elderly, and young children.
10. **Ask:** What are signs that someone has TB? [Answers: Cough for more than three weeks, blood in the sputum, chest pain for more than one month, increasing weakness, weight loss, had TB before or was treated for cough, night sweats, and fever.]
11. **Ask:** What about for children? Are their symptoms the same? [Answer: children usually do not produce sputum, so it is important to pay attention for other symptoms: close contact with a person with TB disease, weight loss for no obvious reason, or two or more episodes of fever for no obvious reason (they did not have malaria).]
12. **Ask:** What should people do who have those symptoms? Allow participants to discuss. Correct any incorrect information about taking medicines from a chemist or other treatments that are not from a health facility.
13. **Explain** that it is important for people with TB-like symptoms to go to a health facility as soon as possible to know if they have TB disease. At the facility, a doctor will take a sputum sample and examine it under a microscope.

Sputum is the mucus and saliva that comes up when a person coughs. Doctors may also do other tests, such as an x-ray. The only way to know if a person has TB disease is through a sputum test in a laboratory. People should not go to a chemist and buy medicine. Cough medicines do not cure TB. TB diagnosis and treatment is **FREE** at government facilities in Kenya. TB can be cured.

14. **Ask:** Have you ever heard of someone in our community who has TB that was in another part of the body outside of the lungs? Allow participants to share experiences.
15. **Explain** that although TB of the lungs is the most common form of TB, TB can infect almost anywhere in the body. Other common parts of the body that are affected are the lymph nodes and the spine. When someone has TB of the lymph nodes, they will often have a swollen neck. Although the swelling is painless, they may have a wound with pus coming out. TB of the spine is also common and can weaken the lower limbs or make people paralysed. TB can also cause fluid in the lungs. TB outside of the lungs can also be cured.



Main messages

- Anyone can get TB.
- There is a difference between being infected with TB and being sick with TB. When people with TB infection become sick with TB, it is called TB disease. TB disease develops when the immune system can no longer fight the TB germs and the TB germs begin to grow quickly in the body.
- TB can be cured if people follow their doctors' instructions and take all of their medicine.
- TB testing and treatment are free at government health facilities. People with TB symptoms (cough for more than 3 weeks, etc) should go to a health facility for diagnosis. Cough medicines will not treat TB.



Activities

Activity: Shortest road to a cure

1. **Use the following questions** to generate a discussion and write participants' responses on a flipchart (if available) or note them to yourself:
 - What would you do if you coughed?
 - What would you do if the cough lasted for one week?
 - What would you do if the cough lasted for two weeks?
 - What would you do if the cough lasted for three weeks?
 - What would you do if you coughed up blood?
2. **Ask:** Where would you go for help if the cough lasted for more than three weeks? Encourage participants to brainstorm where they would go. [Possible responses: self-diagnosis and self-treatment, over-the-counter drugs, traditional healer, private clinics and government health facilities.]
3. **Read** the following scenario:

John has a cough for a week and does nothing. After another week he still has a cough but thinks it may go away. After another week he is still coughing and is feeling tired so he goes to the traditional healer and gets herbs.

By the fourth week he still is coughing and is starting to feel so bad he cannot work. The fifth week he goes to the chemist and buys cough medicine and is still not feeling better. The sixth week he is still coughing, he has lost weight, and every morning he wakes up and notices he has been sweating. He decides to go to the health facility where he is diagnosed with TB and then begins treatment.

4. **Ask:** How much money was spent? How long did he not feel well? How long did it take to get proper treatment? How long was he infecting other people?
5. **Ask:** How does the first scenario compare with someone who has a cough for three weeks and some chest pain so he goes to a health facility for free diagnosis. At the facility he is diagnosed with TB and starts free treatment immediately.
6. **Ask:** Does it matter how soon you treat an illness or infection? Why? What are the consequences if it is not treated quickly? Stress the following information: If you have a cough for more than three weeks, go to government health facility to get early diagnosis. If you get a positive result for TB start prompt treatment at the health facility where you had your diagnosis or go to a nearby health facility where they have free TB treatment.

Activity: TB role plays

1. **Ask** for two volunteers to role play the following scene in front of the group. Two friends are talking, one is complaining about a cough that will not go away, sometimes he even coughs up blood, the other wants to convince him to go to the health centre for treatment. After the role play, ask participants the following questions:
 - Do you agree with what the characters decided to do?
 - Would you have done anything differently?
 - Is what happened similar to what would happen in real life?
 - How will the decisions the actors made influence their lives?
2. **Ask** for another set of volunteers to act out another situation. Two friends are talking and one friend says that he or she has TB disease and has to start treatment, the other one talks with him or her about what that means and is supportive.
3. After they have finished, **facilitate** a discussion about this role play using the questions above and comparing it to the one before.
4. **Summarize** the role plays and ask participants to talk about how it relates to issues in our own community.

2. Treating TB



Session objectives

By the end of this session, participants will be able to:

- Explain that TB can be cured.
- Know that anyone can get TB, even if you are HIV positive or HIV negative.
- Understand the importance of completing treatment.
- Take steps to prevent TB.



Session guide

1. **Ask:** Can TB be cured? Allow participants to discuss. Be sure that participants agree that TB can be cured.
2. **Explain** that to cure TB disease, patients take a combination of different drugs. These TB drugs are taken once a day for between six to eight months. It is best to take the drugs at the same time every day. This helps the drugs work together to fight TB. It is better to take TB drugs without food or after a small meal. TB can be cured if the patient takes the TB drugs regularly and on schedule, for the entire six to eight months, even if s/he feels better after having taken treatment for some of the time. TB can cause death if it is not correctly and completely treated. TB patients can continue to infect other people with TB if they do not take all their TB drugs. Taking only some of the drugs or not completing the whole treatment will not cure TB. For the first two months of treatment, it is important that a trained person watches the TB patient take his or her medicines. This person is there to watch and help the TB patient remember to take the pills every day.
3. **Ask:** What happens to people who do not take all of their TB medicines? [Answer: When people do not finish their complete TB treatment, it can cause drug resistance, which means that the drugs will no longer work to cure TB. To be cured patients must take all of the medicines prescribed by a doctor.]
4. **Ask:** What happens to people who wait to get diagnosed with and start treatment for TB? [Answer: People who wait to go to a health facility for TB diagnosis and treatment can die. Waiting to get treatment can also cause fluid in the chest and pus in the lungs.]
5. **Ask:** How can TB be prevented? [Answer: People with TB disease should go for treatment and be cured of TB so they cannot pass it to others, covering the mouth and nose when coughing and sneezing, and making sure that people who have spent time with TB patients, particularly children and adults who are coughing, are tested for TB.]
6. **Ask:** Do all people with TB have HIV? Allow participants to discuss and share their opinions.
7. **Explain** that some people are sick with only TB, some people are sick with only HIV, and some people are sick with TB and HIV at the same time. Having TB does not mean someone has HIV, and having HIV does not mean someone has TB. With the right medicine, TB can be cured whether or not someone has HIV. Because HIV weakens the immune system, someone who is HIV infected and infected with TB is more likely to become sick with TB than someone infected with TB who is not infected with HIV. TB speeds up the HIV disease. TB is a leading cause of death among people with HIV.

8. **Ask:** Why are the two diseases more dangerous together than they are on their own? Allow participants to discuss. They should mention the following information:
- TB is harder to diagnose in people who are HIV infected.
 - TB progresses faster in HIV-infected people than people who are not HIV infected.
 - TB in HIV-infected people is almost certain to cause death if not diagnosed or not treated.
 - People who are HIV infected usually get TB before other opportunistic infections.
9. **Ask:** Is there anything that pregnant women with TB should or should not do? Allow participants to discuss.
10. **Explain** that it is important for women who think they may have TB to go for diagnosis as soon as TB is suspected. Not being treated for TB is much more dangerous to a pregnant woman and the foetus than taking the medications for TB. HIV-infected pregnant women who think they may have TB should be treated without delay. It is safe for women with TB to breastfeed their babies.



Main messages

- Anyone can get TB; if you are HIV positive or HIV negative.
- TB patients can prevent spreading TB to others by being treated for TB, covering the mouth and nose when coughing and sneezing, and encouraging others to be tested and treated.



Background notes

Tuberculosis, or TB, is a bacterial disease caused by germs that can settle anywhere in the body. We most often hear about TB of the lungs. TB can be cured with the right treatment, even if someone has HIV and AIDS. However, if a person who is sick with TB does not get the right treatment he or she can die. TB is dangerous for other people because it spreads easily from person to person.

TB infection

People can be infected with TB at any age. Once infected with TB germs, a person can stay infected for many years, probably for life. People can be infected with TB, but not feel sick because their immune system is able to fight the TB. People with a TB infection cannot spread TB to other people. Many people who have a TB infection are healthy. Most people with a TB infection who have a healthy immune system will never become sick with TB.

Some people with a TB infection can become sick with TB, this is called TB disease. TB disease develops when the immune system can no longer fight the TB germs and the TB germs begin to grow quickly. When this happens, people start to feel sick. The risk that TB infection will become TB disease is higher for people with HIV infection or other conditions that weaken the immune system.

TB disease can affect most tissues and organs, but usually it affects the lungs. The chance of developing TB disease is greatest soon after someone becomes infected and becomes less as time goes by. Infected babies and young children have a greater risk of developing TB disease than older people because their immune system is not fully developed. TB is also more likely to spread from the lungs to other parts of the body in children. Although it is not common, it is possible for people who are infected with TB during childhood to develop TB disease later in life. The most common reason why people develop TB disease is a weak immune system, especially when they are infected with HIV.

Differences between TB infection and TB disease

	TB infection	TB disease
TB germs in the body	Few	Many
Chest x-ray	Usually normal	Usually abnormal
Sputum test	Negative	Positive
TB symptoms	No symptoms	Symptoms (cough, fever, weight loss)
Infectious to others	Cannot infect others	Often can infect others (before treatment)

A person's risk of TB infection is determined by 1) the amount of TB germs in the air, 2) the length of time he or she breathes in that air with the germs, and 3) how strong their immune system is. People who live with someone with TB disease are more at risk than those who live with someone who has TB infection.

It is easy to pass these germs on to family members, especially when there are many people living in a small closed-in space, and there is not enough fresh air. **Anyone can get TB.** TB is **not** transmitted through food and water or by sexual intercourse, blood transfusion, or mosquitoes.

Sources of infection

Most people who are infected with TB were infected by a person with the TB disease who was coughing. When a person with TB disease coughs, spits, or sneezes without covering his or her mouth, people nearby can breathe in the air and the germs. When the germs get into the body they can infect the lungs or other parts of the body. The germs can remain in the air for long periods of time. Direct sunlight kills TB germs in 5 minutes, but they can survive in the dark for a long time. This is why transmission usually happens inside buildings or homes.

TB symptoms

When TB is in the lungs, the major symptom is a cough that continues for a long time (more than 3 weeks). When people with TB disease cough, they produce a lot of sputum (mucous and saliva) that may contain blood. Some symptoms of TB can look like other illnesses, so it is important that the person gets a test at a health facility and does not treat the cough with medicines purchased at a chemist.

People who have any of the symptoms below should go to a health facility immediately for treatment:

- Coughing more than 3 weeks
- Coughing up blood
- Chest pain
- Trouble breathing
- Fever
- Sweating at night, even when the weather is cold
- Losing weight
- Loss of appetite
- Tiredness

TB can be cured so it is important to go to a health facility immediately.

TB diagnosis

It is important for people with TB-like symptoms to go to a health facility as soon as possible to know if they have TB disease. At the facility, a doctor will take a sputum sample and examine it under a microscope. They may also do other tests, such as an x-ray. The only way to know if a person has TB is through a sputum test in a laboratory.

If the TB test is positive, the patient will need to follow the advice of the health staff and take TB drugs until they are cured. People should not go to a chemist and buy medicine. Cough medicines do **not** cure TB. TB diagnosis and treatment is **FREE** at government facilities in Kenya.

Treating TB disease

To cure TB disease, patients take a combination of different drugs. These TB drugs are taken once a day for between six to eight months. It is best to take the drugs at the same time every day. This helps the drugs work together to fight TB. It is better to take TB drugs without food or after a small meal.

TB can be cured if the patient takes the TB medicine regularly and on schedule, for the entire six to eight months, even if he or she feels better after having taken treatment for some of the time. TB can cause death if it is not correctly and completely treated. TB patients can continue to infect other people with TB if they do not take all their TB medicine. Taking only some of the medicine or not completing the whole treatment will not cure TB. It is dangerous not to follow the treatment correctly and take only some of the TB drugs because the disease may then become incurable. Most of the treatments to cure TB can be given at home, but must be taken as directed by a health care worker.

For the first two months of treatment, it is important that someone (a health worker or trained family member) watches the TB patient take his or her medicines. This person is there to watch and help the TB patient remember to take the tablets every day. This is called DOTS or Directly Observed Treatment, Short-Course. DOTS is a good approach because many people do not take their medicines on time because of side effects or because they forget. When people do not finish their complete TB treatment, it can cause drug resistance, which means that the medicines will no longer work to cure TB.

Drug-resistant TB

Drug-resistant TB is a kind of TB that cannot be cured by the normal TB medicine. Patients can develop drug-resistant TB if they do not take all of their medicine for the time required or sometimes when health workers do not prescribe the proper treatment. When people do not take all the medicine, it allows the disease to fight back and eventually drugs will no longer work. One very dangerous type of drug-resistant TB is multidrug-resistant TB (MDR-TB). This specific TB is resistant to the two most powerful TB drugs. While drug-resistant TB can be treated, treatment lasts for much longer and is very expensive, and has very serious side effects for patients.

Preventing TB

TB patients can prevent spreading TB to others in the family and community by:

- Going for treatment and being cured of TB.
- Covering the mouth and nose when coughing and sneezing.
- Making sure that people who have spent time with TB patients, particularly children and adults who are coughing, are tested for TB.

TB and HIV

Some people are sick with only TB, some people are sick with only HIV, and some people are sick with TB and HIV at the same time. Having TB does not mean someone has HIV and having HIV does not mean someone has TB. With the right medicine, TB can be cured whether or not someone has HIV.

HIV weakens the immune system. Someone who is HIV infected and infected with TB is more likely to become sick with TB than someone infected with TB who is not infected with HIV. TB speeds up the HIV disease. TB is a leading cause of death among people with HIV.

Pregnancy and TB

Women who think they may have TB should go for diagnosis as soon as TB is suspected. Not being treated for TB is much more dangerous to a pregnant woman and the foetus than taking the medications for TB. HIV-infected pregnant women who think they may have TB should be treated without delay. It is safe for women with TB to breastfeed their babies.



Gender and tuberculosis

Gender awareness plays a role in the event of any type of illness. Men, women, boys, and girls of a family should have equal access to health services, as well as the ability to seek out those services. One sex should not be favored over another. Women often wait to seek health services for their own symptoms. Oftentimes, women must seek their husbands' permission to go to a health facility. It is important for women to pay attention to their health, go to a health facility if they think they may be sick, and have husbands who support them and allow them to make decisions about their own health.

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