

TB FACT SHEET



What is TB?

Tuberculosis (TB) is a serious, but curable, infectious disease caused by a bacterium (*Mycobacterium tuberculosis*). It usually **affects the lungs** but can affect other parts of the body such as the spine and brain. TB of the lungs is called **pulmonary TB**.

A third of the global population (2 billion people) are infected with the TB bacterium but most people's immune system prevent disease from developing. This is called **latent (hidden) TB**. However, for people with weak immune systems, for example because they are malnourished or have HIV, latent TB can develop into **active TB**.

How do people get TB?

When someone with pulmonary TB coughs, sneezes or even sings, TB bacteria are released into the air in droplets. These droplets can stay in the air for a period of time – if they are inhaled by another person the bacterium enters the lungs and can develop into TB. On average a person with TB infects 10-15 others.

To prevent TB from spreading it is important for people with TB to **cover their mouth when coughing** and **keep windows open**

Diagnosis

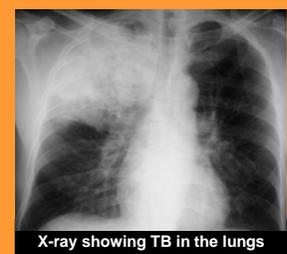
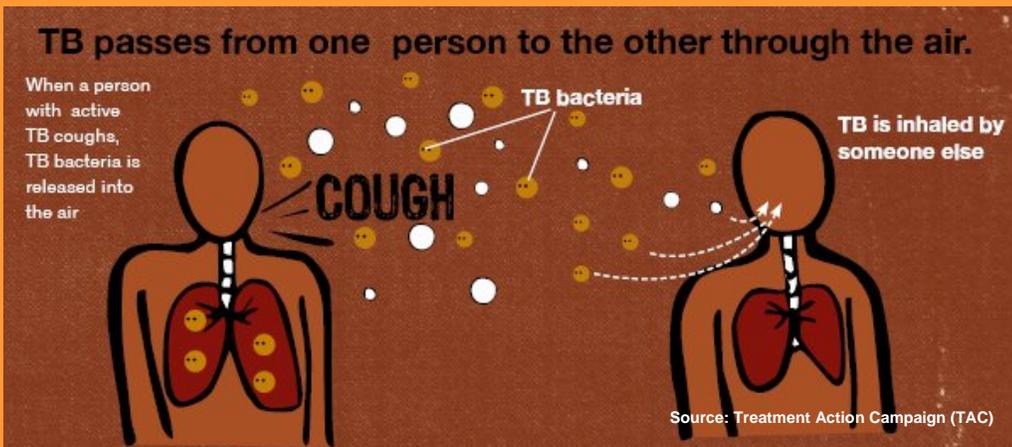
The most common **symptoms** of active TB are a **persistent cough**, which may bring up phlegm (sputum) or blood, **weight loss**, night sweats, loss of appetite, **fever** or feeling tired. Often people do not realise they have TB because the symptoms can take weeks or months to become obvious.

If you have TB symptoms **get tested**. To be sure you have TB go for diagnosis at a health centre or hospital where they can take a sputum sample or a chest x-ray.

Treatment

TB is curable. In most countries **treatment** by the public health service **is free**. Treatment involves 3 or 4 different antibiotics for 6-9 months. People with TB must fully complete treatment, even if they start to feel better, to **prevent drug-resistant TB** developing.

Directly Observed Therapy Short-course (**DOTS**) is the World Health Organisation's standard method for TB control. It requires government commitment, access to TB tests, regular supply of effective drugs and treatment supervision to ensure drugs are taken correctly.



Drug Resistance

If TB drugs are taken incorrectly, or stopped before a person is cured, drug resistance may develop and the drugs will no longer work. This is called multi-drug resistance (MDR) when more than one first-line TB drugs is involved. **MDR is curable** by taking a more complex dosage of drugs for a longer time. In rare cases, extensively drug-resistance (XDR) occurs which is a resistance to MDR-TB drugs. It is difficult to cure.

Both **MDR and XDR TB are also contagious**.

TB-HIV/AIDS

HIV weakens a person's immune system, putting them at risk of getting active TB. Having HIV and TB can be dangerous as each speeds the other's progress. TB is the leading cause of death among people with HIV.

A person with HIV **can** be cured of TB.

TB **cannot** turn into HIV.

HIV **can** increase the risk of developing TB.

TB **cannot** be transmitted through sex or blood transfusion.

TB FACT SHEET

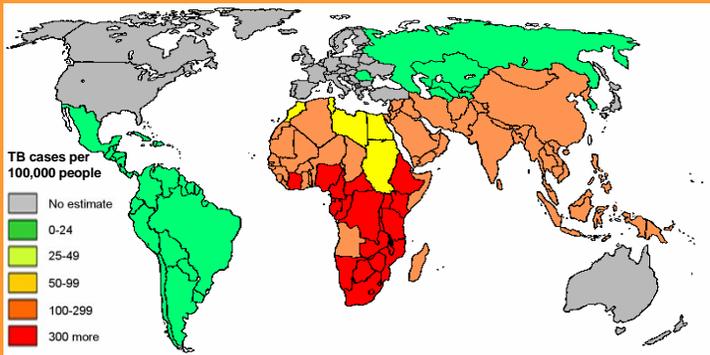


TB worldwide

TB is one of the world's biggest killer diseases.

Every year there are **9 million new cases** and **2 million people lose their lives** to TB.

TB is overwhelmingly concentrated in developing countries. India and China have the highest number of people living with TB. However, when considered in relation to population, TB is most prevalent in Sub-Saharan Africa. TB is inextricably linked to global inequalities - rates of TB have become telling indicators of a society's wealth or poverty.



Source: World Health Organisation (WHO)

The map shows prevalence rates of TB across the world.

TB and poverty

Poverty and TB are closely related. Malnutrition and poor living conditions increase the risk of infection – activating latent TB or making a person more vulnerable to transmission.

People on a low-income in poor areas are also less able to access treatment – either because the health services are just not available or the cost to access services is too high. TB tests and treatment are often free on the public health service, but many people cannot afford to take the time off work or pay for transport to get to a health centre.

Poverty is both a cause and effect of TB – poverty increases a person's vulnerability to TB and TB can devastate the economy of an entire family – this creates a **poverty-disease cycle**. TB is the biggest killer of people in their economically active years, 15-59 years old. In developing countries if a person dies from TB an average of 15 years of income is lost.

Even in wealthy countries, such as the UK and US, there remains a clear link between poverty and TB particularly in major cities.

TB and children

Young children are vulnerable to TB because their immune systems are not fully developed. **Children** are more likely to **get more severe forms of TB**, including TB of the brain (TB meningitis) and TB throughout the body (miliary TB). Advanced forms of TB may result in permanent brain damage and they require specialized care.

Children are particularly vulnerable to HIV infection and malnutrition, which also puts them at high risk of getting TB. Most countries vaccinate children at birth using a BCG injection, which provides some protection against severe forms of TB in children.

TB and gender

TB affects both women and men.

It is debated whether one gender is more vulnerable to TB than the other. In most countries there are higher rates of men with active TB than women. However, many question whether gender inequalities result in women being less able to access health care to test and treat TB.



Stigma

TB is often stigmatized. People with TB can be discriminated against and socially isolated. As a result many people with TB hide their illness or do not go to get tested for fear of being ostracised.

TB stigmas are often **due to misunderstandings** about the disease. People catch TB by spending prolonged periods breathing in the same air as someone infected – **TB is not spread by touching, sharing food or having sex** with someone with TB. Also, **TB is wrongly linked with being unclean**.

TB FACT SHEET



Availability of MDR & XDR tests

Drug-resistance develops as a result of incorrect or incomplete TB treatment. This is called acquired resistance (when MDR develops during treatment).

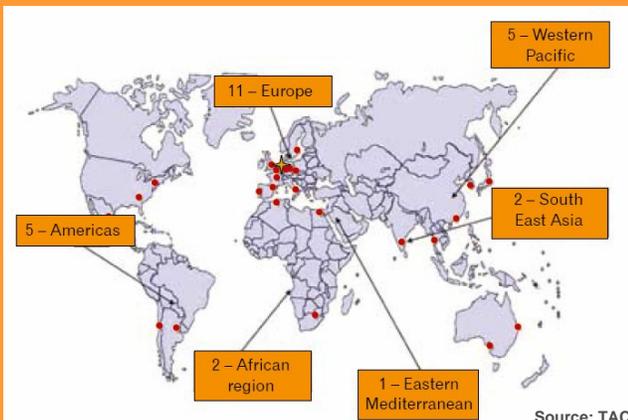
Drug-resistance is also **contagious** and is commonly spread through the air in the same way as drug-sensitive TB. This is called primary resistance (when a person has MDR but has never been on any treatment before).

The signs and symptoms of MDR and XDR are the same as drug sensitive TB – prolonged coughing, unexplained weight loss, weakness and fever. MDR can progress more quickly in patients with HIV.

Someone who has started TB treatment but is not getting better should be tested for drug-resistance.

Testing for MDR & XDR is not widely available. (see map below). MDR-TB drugs are costly and treatment takes up to two years. XDR-TB drugs are even more expensive, take even longer and cannot always cure patients. East Asia and sub-Saharan Africa have the highest TB rates, yet they lack laboratories and drug supplies in order to test and treat drug-resistance.

Improved and **more effective tests and treatment** are desperately needed and **would save lives.**



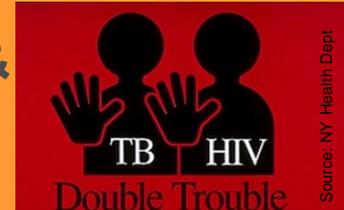
The map shows availability of laboratories testing drug-resistance

BCG

In many countries BCG (Bacillus Calmette-Guerin) vaccine is given at birth to immunize people against TB.

BCG protects young children from TB but it **does not prevent TB from developing in all cases** and does not protect people in the long-term.

Diagnosis & Treatment for TB-HIV



It is **difficult to test for TB in people with HIV.** TB is usually diagnosed using a sputum test (coughing up phlegm into a container) to identify if there are TB bacteria in their lungs. People with HIV often have less TB bacteria in their sputum and their results may come back negative. Also, TB in HIV positive people may infect other parts of the body.

TB culture tests are more reliable at diagnosing TB. However like MDR and XDR tests, in the areas that need it most there are few laboratories with these facilities and results can take months to produce.

TB progresses very quickly in people with HIV. People with HIV may need to start TB treatment while waiting for culture tests. In areas where culture tests are not available health workers can diagnose TB using symptoms, blood tests and measuring responses to TB treatment.

A person with HIV who is on antiretroviral (ARV) treatment when diagnosed with TB might have to change their ARV regimen. People on HIV&TB treatment should be monitored closely by the clinic for side effects and drug interactions.

If co-infected with HIV&TB, but not on ARV treatment, a person should start TB treatment first.

Side effects of TB drugs

Taking TB-drugs may cause side effects and can make it difficult to adhere to treatment. For example, if taken on an empty stomach they can cause nausea.

Other, rarer side-effects include – tiredness, joint pain, rash, fever, dizziness, progressive loss of eye sight or hearing, hepatitis, and numbness and/or pain in your feet.

Drugs for MDR and XDR also have side-effects and they can be more severe and need close monitoring.

It is important to **report side-effects** to clinics. Some side-effects can be reduced with other medication. **It is vital that medication is not stopped unless told to by a health worker.**