

TUBERCULOSIS - the essentials for all UNAIDS programme staff

Tuberculosis (TB) may be the biggest threat to people living with HIV and to the success of the Universal Access initiative.

So what exactly is TB, what should UNAIDS be doing about it and how can closer collaboration with the TB community help accelerate scale up towards Universal Access?

A FEW IMPORTANT FACTS:

- One third of the world's population is infected with TB
- At least 13 million people living with HIV are infected with TB and at increased risk of developing active TB disease.
- Most TB is preventable and curable. Improving access to quality TB prevention, diagnosis and treatment is one of the most effective ways to improve the quantity and quality of the lives of women, men and children living with HIV.



WHAT ALL UNAIDS STAFF SHOULD KNOW

1. Tuberculosis (TB) is a bacterial infection spread through the air when an infectious person coughs, sneezes or even sings, just like the common cold.



Tuberculosis (TB) is an infection usually of the lungs that is caused by the bacteria *Mycobacterium tuberculosis*. It is spread, like the common cold, through the air from an infectious person coughing, sneezing or even speaking and singing.

One third of the world's population is infected with TB; however most of these people never develop TB disease as the bacteria live dormant in the lung. This is known as **latent TB infection**. Only 5-10% of people who are infected actually develop TB disease during their lifetimes but the risk of TB disease is increased when the body's immune system is weakened by, e.g. malnutrition or HIV.

TB disease commonly presents with symptoms such as a persistent cough lasting for more than 2-3 weeks, weight loss, fever, night sweats and coughing up blood. TB disease usually affects the lungs but can also affect almost any part of the body.

2. People living with HIV are at increased risk of developing TB disease and are likely to die rapidly without access to prompt diagnosis and treatment.

People who are infected with TB are much more likely to progress rapidly to TB disease if they are also living with HIV. In people living with latent TB infection and HIV the risk of active TB disease is 10% a year, compared with 10% over a lifetime in HIV-negative people.

At least one third of the 40 million people living with HIV around the world are likely to be infected with TB and at very high risk of falling ill and dying from TB. Without proper treatment TB will cause death in people living with HIV within weeks. TB is estimated to cause at least 13% of all deaths in people living with HIV.

Furthermore, treating TB and HIV together is complicated because



of the increased risk of side effects and drug interactions between TB treatment and antiretroviral therapy (ART). This is especially true during pregnancy. HIV has also led to the feminization of the TB epidemic in high HIV prevalence settings with a dramatic increase in the number of young women developing TB.

3. TB is treatable.



TB disease is treated with a course of four antibiotics taken over at least six months. Cure rates are as high in people living with HIV who complete treatment as in those who do not have HIV; however TB mortality rates are much higher among people living with HIV. Rapid progression of TB, delays in seeking care and delays in making the diagnosis of TB in people living with HIV increase the death rate.

The main tool for diagnosing TB is microscopic examination of sputum that has been specially stained. The diagnosis of TB is made when bacteria are seen and the patient is said to have sputum positive TB. This test is over 100 years old, it is time-consuming and requires considerable training. Furthermore, it is not as effective in diagnosing TB among people living with HIV because TB of the lungs is often sputum negative and TB outside the lungs (extrapulmonary TB) is more common. New tools for improving the diagnosis and treatment of TB in people living with HIV are urgently needed.

4. TB is preventable.

Although TB is one of the biggest killers of people living with HIV, most TB could be prevented by improving the performance of basic TB control services. The spread of TB can be reduced if all cases of infectious TB are detected rapidly, treated and cured. Each case of infectious TB is likely to infect an estimated 18 other people before they are detected and cured.

HIV programmes increasingly have to deal with TB cases presenting to the HIV care and treatment services. TB will spread particularly rapidly among vulnerable groups of people living with HIV when they congregate together, such as HIV care clinics, prisons, harm reduction services, and workplaces in high HIV prevalence settings. Simple infection control practices can greatly reduce the risk of TB spread in such settings.

Better community awareness about TB symptoms and better access to effective TB diagnosis and treatment services would improve TB control. Communities can play a major role in preventing the spread of TB by promoting cough hygiene (covering the mouth when coughing or sneezing), encouraging anyone with a cough for more than 2-3 weeks to be tested for TB and supporting those who are on TB treatment to complete their treatment.

Effective ART will reduce the risk of TB in people living with HIV however their risk of TB on ART will still be much greater than someone who is not HIV infected. Regular TB screening for populations at risk of TB, such as people living with HIV, can help to detect and treat TB disease early thus saving lives and reducing spread. Adults and children living with HIV who do not have TB disease but have latent TB infection can be treated with isoniazid preventive therapy (IPT) for 6 months which greatly reduces their risk of developing TB disease. The current vaccine against TB is most effective in reducing the risk of severe TB in children. Research into a new, more effective TB vaccine is a priority.



5. Collaboration with the TB control programme can accelerate scale up towards Universal Access and is essential for effective HIV care and treatment

The emergence of extensively drug resistant TB (XDR-TB), an effectively untreatable form of TB with very high death rates among people living with HIV demonstrates the grave consequences for people living with HIV if they do not have adequate access to high quality, effective TB prevention, diagnostic and treatment services. Most heavily affected countries have well-established TB programmes, including specially trained clinical and community outreach staff and programme supervisors at the district and regional level.



Given the impact that TB has on people living with HIV it is important that TB prevention and treatment services are included in Universal Access and the TB programme is part of the comprehensive response to HIV at country level. The drive for Universal Access to HIV prevention, treatment, care and support will be jeopardized if people living with HIV continue to die unnecessarily from TB.

In addition, the TB programme can contribute significantly in scaling up towards Universal Access by offering HIV testing and counseling to all TB patients and ensuring, with the help of the HIV community, that TB patients with HIV have access to ART and HIV care and support. Coordinated action and collaboration between the TB and HIV communities leads to useful synergies that can 'make the money work' at country level, jointly overcoming many of the constraints to delivering comprehensive HIV and TB prevention, treatment and care, such as human resource capacity; drug procurement and supply management; laboratory capacity; drug resistance monitoring; and supervision, monitoring and evaluation.

6. What UNAIDS can do:

- Advocate for increased political commitment and resources for TB prevention, screening and treatment in people living with HIV.
- Build strategic partnerships between the TB and HIV communities to ensure universal access to comprehensive and integrated TB and HIV prevention, treatment, care and support services
- Develop the capacity of civil society to address the burden of TB in people living with HIV
- Promote the inclusion of universal access to TB prevention, diagnostic and treatment services for people living with HIV in the National AIDS Action Frameworks.
- Encourage the TB programme to become a fully engaged partner in planning and implementing the National AIDS Action Framework and ensure the contribution of the TB community to scaling up towards Universal Access and the delivery of comprehensive HIV and TB prevention, treatment, care and support services.
- Encourage improved TB infection control in settings where people living with HIV are concentrated (such as workplaces, HIV care clinics, prisons, and harm reduction services) and promote regular screening of people living with HIV for active TB and treatment of latent TB infection.
- Advocate for increased global investment in quality TB control and in research to find new and improved ways to prevent, diagnose and treat TB among people living with HIV.



"We can't fight AIDS unless we do much more to fight TB as well."

Nelson Mandela
Bangkok, July 15, 2004

For policy guidance or further information on TB/HIV collaboration go to the [WHO TB/HIV website](#)

To find out more about XDR TB and HIV and drug resistant TB in general:
<http://www.who.int/tb/xdr/en/index.html>.

The [Stop TB Partnership web](#) has general information about the global response to TB.

Information about the TB/HIV Working Group of the Stop TB Partnership is available at
http://www.stoptb.org/wg/tb_hiv/

To find out about World TB Day: www.stoptb.org/events/world_tb_day

If you have any further queries do not hesitate to contact [Alasdair Reid](#), UNAIDS HIV/TB Adviser
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