

The Current TB/HIV situation in Zambia

Zambia is one of the countries in the world most affected by the dual TB and HIV epidemics. In 2006 Zambia reported over 60,000 cases of tuberculosis, of whom at least 40% are estimated to be HIV positive. Zambia experienced a dramatic increase in the numbers of patients reported with tuberculosis over the 1990s and early 2000s due to the increasing HIV epidemic, but now appears to have reached a steady state with an estimated incidence of approximately 550/100,000 population per year.

Zambia implemented the international standard of TB control, DOTS in 2001 and now has 100% coverage in government health facilities. The DOTS strategy ensures that TB is diagnosed promptly and that a standard drug regimen is used to treat and cure cases of TB, and to avoid the development of drug resistance. The process is closely monitored to ensure that drugs are available and that patients receive the correct course.

Zambia also implemented the WHO TB/HIV collaborative activities in 2005 with the establishment of a TB/HIV co-coordinating body with representation from government, donors, NGOs and implementing partners. This body has worked closely with the Ministry of Health to implement activities designed to reduce the burden of HIV in patients with TB and to reduce the burden of TB in people living with HIV. Since 2005 diagnostic counseling and testing of all TB patients for HIV has been implemented with referral systems to ensure that those testing positive access antiretroviral therapy (ART). Similarly HIV care settings have included screening for tuberculosis into their programs to ensure rapid treatment of tuberculosis.

Multi-drug resistant tuberculosis is a concern for all countries as treatment of drug resistant disease is difficult and costly. Zambia first conducted a national drug resistance survey in 2000 that demonstrated an estimated prevalence of MDR-TB of 1.8% amongst smear positive TB cases. A repeat survey is currently underway which will allow us to see how the situation has changed and to make plans for the future.

Prevention of tuberculosis and HIV are important for everyone in Zambia. We need to encourage everyone to get tested for HIV so that they can know their status and can access the treatment and care that they need. We also need to encourage everyone to recognize that any symptoms of TB such as cough, weight loss, fevers and sweating at night need a prompt visit to the health center where a sputum sample can be examined for TB and treatment can be started rapidly. TB is a curable disease, whether you are HIV positive or negative as long as it is picked up early.

Facts on Tuberculosis in Zambia

Zambia's TB Burden (2006 estimates)

TB Incidence	563/100,000 per year
Trend in incidence rate	-6.1
Prevalence	568/100,000 per year
Mortality	102 deaths/100,000 per year
Percentage of new TB cases that were HIV+	37%
Percentage of new TB cases with MDR-TB	1.8%

Surveillance and DOTS Implementation in Zambia (2006 data)

Notification rate (new and relapsed TB cases)	409/100,000 per year
Trend in incidence rate	-6.1
Prevalence	568/100,000 per year
Mortality	102 deaths/100,000 per year
Percentage of new TB cases that were HIV+	37%
Percentage of new TB cases with MDR-TB	1.8%

TB Terms to Know

TB	TB is a bacterial infection caused by <i>Mycobacterium tuberculosis</i> . Most people infected with TB show no active symptoms of the disease because it is suppressed by the body's immune system. This is also known as "latent infection." One out of every three people worldwide is latently infected with TB.
TB Disease	TB disease occurs when TB germs "wake up" and start attacking the lungs and potentially other areas of the body. TB disease can develop in anyone who has the TB germ in their body. People with a weakened immune system caused by reasons such as poor health, poor nutrition, or HIV infection are more likely to develop TB disease.
DOTS	Directly Observed Therapy, Short Course. DOTS is a treatment strategy in which health care workers directly observe patients taking their medicine to ensure that they complete their treatment course
IPT	Isoniazid Preventive Therapy. IPT is the administration of a daily course of antibiotic treatment over 6-12 months to individuals who are at high risk of developing TB disease.
ICF	Intensified Case Finding. A series of practices used to actively identify TB cases through activities like household surveys and surveys of patients attending clinics for HIV diagnosis and treatment. CREATE is studying the degree to which these protocols can help to reduce new cases of TB in Zambia.
MDR-TB	Multi-drug resistant TB. Strains of TB bacteria that are resistant to treatment by the most common antibiotic treatments but can be cured successfully with alternative, or "second-line," antibiotic treatments. Multi-drug resistant strains of TB can develop when patients do not complete a full course of treatment for TB infection or when they are exposed to multi-drug resistant strains carried by other people who have not completed TB treatment correctly.
XDR-TB	Extensively drug resistant TB. Strains of TB that are resistant to "second-line" treatments for drug-resistant TB strains.

Frequently Asked Questions About TB

What is TB?

TB is short for tuberculosis. TB is a serious disease and causes a person to become very sick or die if it is not treated and cured with medicine. TB usually affects the lungs, but sometimes it affects other parts of the body.

How is TB spread?

TB is spread through the air from one person to another. The TB germs are passed through the air when someone who is sick with TB disease coughs, laughs, sings, or sneezes.

If you breathe air that has TB germs, you may get TB infection. This means you have only dormant (sleeping) TB germs in your body. These dormant germs are not making you sick, and you cannot pass these germs to anyone else.

If these dormant TB germs in your body wake up and multiply, you will get sick with TB disease. TB can cause death if not treated with medicine.

Who is most likely to get TB disease?

Anyone can be infected with TB. One out of every three people worldwide is currently infected with TB. Once you have TB infection, you have a higher chance of getting TB disease if you:

- Also have HIV infection

- Have been recently infected with TB (in the past two years)
- Have other health problems, like diabetes or poor diet that make it hard for your body to fight germs.
- Abuse alcohol or inject illegal drugs
- Were not treated correctly for TB infection in the past year

Babies, young children, older people, and people with HIV have a much higher chance of getting TB disease if infected with TB germs. This is because their body defenses are not as strong.

How do you get TB?

TB is normally transmitted when people who have TB disease cough and spread TB germs to others. TB germs can sometimes stay alive in the air for a few hours, especially in small places with no fresh air or sunlight. Fresh air scatters TB germs and sunlight kills them.

You cannot get TB germs by:

- Sharing drinking containers or eating utensils
- Saliva from kissing
- Shaking someone's hand
- Toilet seats
- Bed linens

It is important not to shun people who may have TB disease. The best way to stop TB disease is to help people who may be infected with TB get treatment.

What are the signs of TB disease?

- A bad cough that lasts three weeks or longer
- Pain in the chest
- Coughing up blood or phlegm from deep inside the lungs
- Weakness or feeling very tired
- Losing weight without trying
- Having no appetite
- Chills and fever
- Sweating at night when you are sleeping

How is TB disease treated?

- You will start off with several TB medicines
- You will need to take your medicines the right way, just as your doctor or nurse advises
- You will need to stay on TB medicines for at least 6 months

What happens if you don't take your TB medicine the right way?

- It can be harder or not possible to cure your TB
- You can stay sick for a long time
- The medicines can stop working, and you may have to take different medicines that have more side effects
- You can pass TB germs to others

How can I make sure that I take my TB medicine correctly?

- Take your pills exactly the way your doctor or nurse tells you
- Take your pills even if you feel well
- Finish all of the medicine given to you
- Tell your doctor or nurse if you are having side effects. They can help you.

What should everyone know about TB?

- Anyone can get TB.
- The best way to stop TB is to seek treatment if you have symptoms.
- People with TB deserve help and support so that they seek treatment at the right time.
- If you have been diagnosed with TB, make sure you take your medicine the right way.

The ZAMBART Project

The Zambia AIDS-Related TB (ZAMBART) Project has been working in Zambia since 1989 to conduct multi-disciplinary research that has led to a better understanding of the TB and HIV epidemics and to find innovative solutions to fight TB and HIV together. ZAMBART is a Zambian non-for –profit organization staffed almost entirely by Zambians that has an international reputation in TB/HIV research.

ZAMBART Project pioneered strategies to bring TB and HIV control programs together and developed and pilot tested all of the interventions that have become the international and national policy for TB/HIV care. ZAMBART works closely with the Ministry of Health both providing technical support and acting as a research partner for the Ministry by conducting national surveys such as the surveys for drug resistance. ZAMBART also works in collaboration with other international research consortiums, such as the CREATE consortium to ensure that our work is also internationally relevant. ZAMBART is committed to strengthening Zambian capacity for research and also to strengthen the health systems to cope with the challenges presented by TB and HIV.

The Zambia and South Africa TB and AIDS Reduction (ZAMSTAR) study is one of the research studies being conducted by ZAMBART Project. ZAMSTAR is a large multi-country randomized trial of 2 innovative interventions to reduce the burden of TB and HIV at community level. The study covers a population of approximately 1.2million people in Zambia and South Africa and aims to empower communities and health service providers to fight TB and HIV. The interventions link the community to the health services by improving case finding for TB in the community, schools and at the clinics and supporting the health services to ensure that all cases found receive optimum treatment. The second intervention provides household counselors to visit the homes of TB patients and to encourage them and their family members to take control of their situation so that they can prevent additional cases of TB and access the correct care and treatment for TB and HIV. These interventions have been in place for 2 years now and will continue for a further year after which we will be able to measure the benefit to the community as a whole. We will also be calculating the cost of the interventions so that we can provide policy makers with detailed information of the benefit of the interventions and their cost. As part of the study we are implementing TB preventive therapy, which although recommended internationally, has not yet been implemented in Zambia. We hope to be able to provide evidence to the Ministry of Health about this intervention and the logistics of implementing it so that this can be scaled up in Zambia.