Global burden of TB and the links with HIV

- Two billion people worldwide are infected with the bacteria that cause tuberculosis (TB). This is known as latent TB infection. Normally only about 10% of people with latent infection will go on to develop TB disease during their lifetime and mostly within two years of infection.

- At least one-third of the 38.6 million people living with HIV worldwide are also infected with TB and at greatly increased risk of developing TB disease.

- HIV weakens the immune system and makes it more likely that latent TB infection progresses to active TB disease. People living with HIV are up to 50 times more likely to develop TB disease over their lifetime people who are HIV negative.

- HIV also increases the chance of relapse in previously treated TB patients.

- The majority of cases of tuberculosis in people living with HIV occur in sub-Saharan Africa, where up to 80% of TB patients may be co-infected with HIV.

- TB affects the entire community.

- Over the past 15 years the number of new cases of TB (TB incidence) has more than doubled in countries with high HIV prevalence.

- HIV/AIDS and TB are so closely connected that the term “co-epidemic” or “dual epidemic” is often used to describe their relationship, which is also referred to as TB/HIV or HIV/TB.

- Many people infected with HIV in developing countries develop TB as the first manifestation of AIDS. The two diseases represent a deadly combination, since they are far more destructive together than either disease alone.

TB/HIV mortality

- TB is the leading cause of illness and death among people living with HIV in Africa and a major cause of death in people living with HIV elsewhere. TB kills up to half of all AIDS patients in some settings.

- Without proper treatment, approximately 90% of people living with HIV die within two to three months of contracting TB.
• People living with HIV who have TB disease die sooner than those without TB—even if they are receiving antiretroviral treatment.

• Globally, 12% of all TB deaths occur in people living with HIV.

• In Africa, 37% of all TB deaths occur in people living with HIV.

**TB/HIV and women**

• About 180,000 girls and women die from TB each year in Africa alone.

• In many high HIV prevalence countries, as a result of high HIV infection rates among women, TB is now more common among women than men in what was traditionally a disease predominantly of men.

• Preventing, diagnosing and adequately treating TB in women must be a priority. TB can spread more rapidly among families if it affects the primary carer because of the closeness of contact. As women are most commonly the primary carer for the young, sick, and elderly, if a woman becomes ill with TB, her illness can have a double impact - on her and the most vulnerable family members through her decreased ability to provide care.

**Treatment issues**

• TB disease can be cured, even in people living with HIV, with a combination of powerful antibiotics over a period of 6-8 months.

• Adequate treatment of TB in people living with HIV has been shown to prolong their life by at least two years.

• TB should be diagnosed and treated as soon as possible, to reduce the damage caused, reduce the risk of transmission to others and ensure that the contacts of infectious cases can be traced for TB testing and treatment if necessary.

• If TB drugs are not used properly, the TB bacteria can become resistant to the drugs.

• Multidrug-resistant TB (MDR-TB) can develop when the bacteria becomes resistant to the two most powerful first line TB drugs (isoniazid and rifampicin). MDR-TB takes longer to treat with second-line drugs, which are more expensive and have more side-effects.

• Extensively drug-resistant TB (XDR-TB) can develop when these second-line drugs are not used properly and therefore also become ineffective. Because XDR-TB is resistant to first- and second-line drugs, treatment options are seriously limited and the risk of death is extremely high, especially for people living with HIV.

• Both MDR-TB and XDR-TB can be spread from person to person.
- There are about 420,000 cases of MDR-TB and about 30,000 XDR-TB cases each year.

**TB infection control**
- People living with HIV are particularly vulnerable to TB and thus TB can spread rapidly in settings with high concentrations of people living with HIV, such as hospital wards, clinic waiting areas, and prisons.
- Special precautions must be taken to avoid people living with HIV coming into contact with infectious TB cases.
- There is an urgent need for improved infection control in settings where people living with HIV and patients with TB are cared for, to protect both patients and health workers against acquiring TB infection.

**Testing and preventive treatment**
- All TB patients should be offered an HIV test.
- Research shows that TB patients are more likely to accept HIV testing than the general population. Thus TB programmes that offer HIV testing can make a major contribution to identifying people living with HIV and ensuring that those who are positive can access HIV care, including antiretroviral treatment.
- In 2005 only 7% of people with TB worldwide were tested for HIV.
- People living with HIV should be screened regularly for TB.
- In 2005 only 0.5% of people living with HIV worldwide were been screened for TB.
- Latent TB infection can be treated with a 6 month course of antibiotics (TB preventive therapy). People living with HIV who have latent TB infection and who do not have active TB disease should receive TB preventive therapy. Preventive therapy is efficacious and cost-effective and can reduce the risk of developing tuberculosis disease by about 60% in the short term.

**Need for collaboration between HIV and TB programmes**
- TB and HIV programmes are quite separate in most countries. Control of both diseases would improve if they worked better together.
- Tuberculosis prevention, diagnosis, and treatment must be included as an integral component of HIV care and the universal access concept in order to address one of the most common causes of severe illness and death among people living with HIV.
• Many of the health systems barriers to implementing national policy are the same for the TB and HIV programmes, such as human resource capacity, laboratory capacity, and drug and supply chain management. Joint working is more likely to succeed in overcoming these barriers.

• Integrating TB and HIV services at the point of patient care makes things easier for patients -- they do not need to go to different places for separate treatment of the two illnesses.

• Better coordination between civil society groups and the public health system in countries heavily affected by TB and HIV will improve the planning and delivery of TB and HIV services.

• There is a pressing need to harmonize country-level reporting systems on TB and HIV so as to capture all data and make certain those data are accurate.

Financing
• Investing in TB control is also an investment in HIV care; you cannot effectively deal with one without addressing the other.

• Investment in antiretroviral therapy is squandered when TB unnecessarily takes the lives of people living with HIV, because they did not receive prompt TB diagnosis and life-saving treatment.

• The Global Plan to Stop TB 2006-2015 calls for US$ 6.7 billion in funding for TB/HIV control in affected countries.

Call to action

Every day that goes by without action adds to the unacceptable death toll in people with TB/HIV.