

Imprimis Knowledge Series V

Fact Sheet: Tuberculosis in India

We at Imprimis work continuously towards developing our information bank to keep you updated with the latest in the life sciences and healthcare sector. These fact sheets are collated from various credible sources to give you a complete picture of the topic under discussion. We endeavour to facilitate you with our resources for your benefit and convenience.

'Tuberculosis in India' is an overview of the prevalence of Tuberculosis around the world with a special emphasis on its impact in India. It takes you through the essential information required to help timely cure the disease.

Tuberculosis has afflicted mankind for at least the last 5,000 years. Tuberculosis (TB) is a leading killer of young adults worldwide and was declared a global emergency by the WHO in 1995. According to WHO reports TB germs infects about one third of the world's population. Globally, there are about nine million new cases of TB with three million deaths annually. These germs kill more human beings than any other single infectious agent and deaths from TB comprise 25% of all avoidable deaths in the developing countries.

The Global Fund organization has estimated that between the year 2000 to 2020 nearly one billion people will be newly infected with TB, 200 million people will become sick from TB and TB will claim at least 35 million lives.

About 95% of TB cases and 98% of TB deaths are in the developing countries; 75% of these cases are in the most economically productive age group — 15 to 50 years.

How does it happen?

TB spreads through air, just like the common cold. When an infectious person sneezes, coughs or even talks, TB germs - known as bacilli - enter the air. The

bacilli can remain in the air for six hours and are a particular threat in crowded and poorly ventilated areas. Left untreated, a person with TB can infect an average of 10 and 15 people per year.

What is "active" TB?

One in ten people that are infected with *M. tuberculosis* may develop active TB at some time in their lives. The risk of developing active disease is greatest in the first year after infection, but active disease often does not occur until many years later.

Active TB disease is an illness where the TB bacteria are multiplying and attacking different parts of your body. The symptoms of active TB disease include weakness, weight loss, fever, no

appetite, chills, and sweating at night. Other symptoms of active TB disease depend on where in the body the bacteria are growing. If active TB disease is in the lungs (pulmonary TB), the symptoms may include a bad cough, pain in the chest, and coughing up blood. A person with active TB disease may be infectious and spread TB to others.

Risk factors for TB include the following:

- HIV infection
- Low socioeconomic status
- Alcoholism
- Homelessness
- Crowded living conditions
- Diseases that weaken the immune system
- Migration from a country with a high number of cases
- Health care workers

What is latent TB?

Latent TB infection is less aggressive than the active form of the disease. A latent TB infection means that your body is infected with live TB germs, but they are not rapidly reproducing and spreading. If you have a latent TB infection, your skin test will usually be positive but you will have no symptoms: you won't feel sick, and you can't spread TB to others. However, you may develop active TB disease if you do not receive treatment for latent TB infection. Treatment for latent TB infection is usually a single antibiotic for six to nine months. A long treatment is required because antibiotics only work when the bacteria are actively dividing.

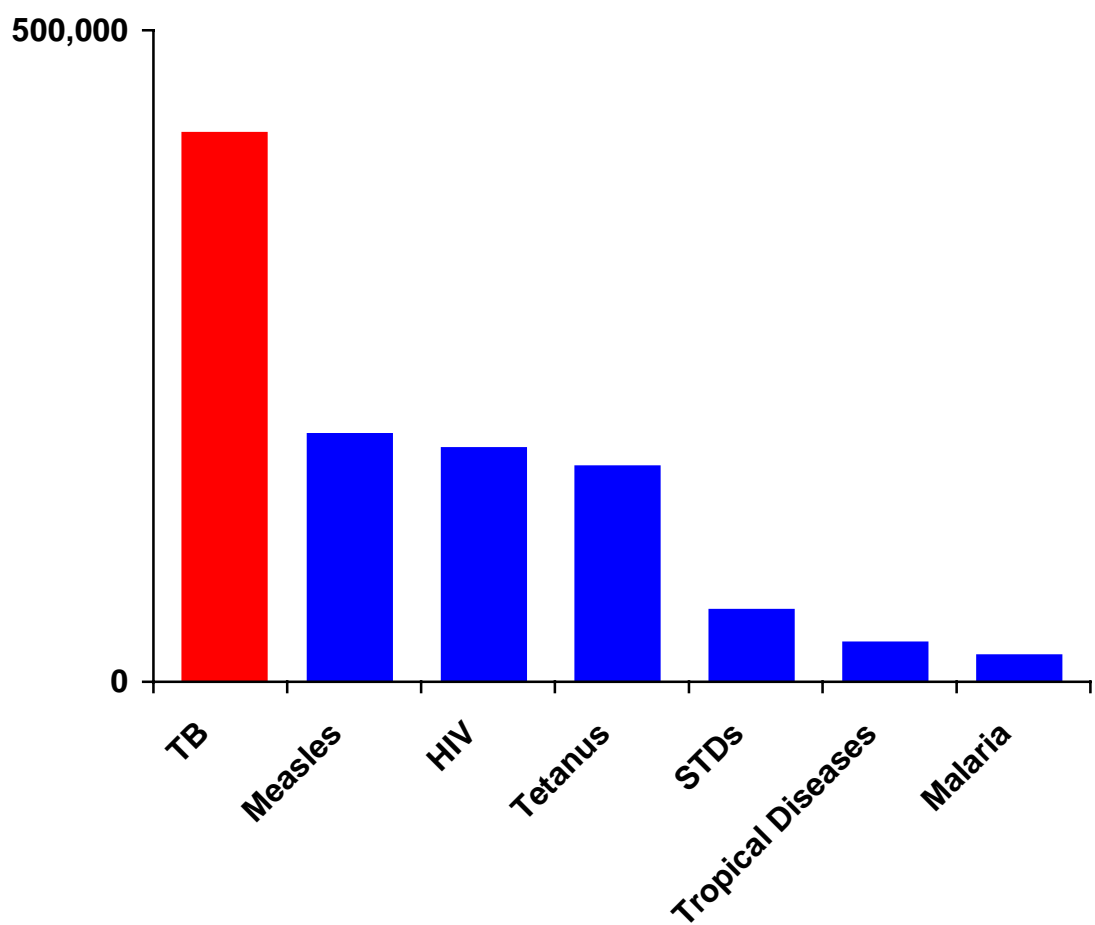
Indian Scenario of TB

According to the Ministry of Health and Family Welfare more adults die from TB than from any other infectious disease in India —1 every minute, more than 1,000 every day. The Indian TB scenario reveals that our country accounts for nearly one third of the whole global TB burden. India has more cases of TB than any other country in the world and twice as many cases as China, which has the next highest number.

Approximately, 2% of the Indian population is suffering from this disease as per the reports submitted by the Ministry of Health and Family Welfare. The grave situation has been made more explosive by the recent epidemic of AIDS worldwide. HIV-infected persons carry five to ten times higher risk of developing TB than their counterparts who are not infected with the AIDS virus.

The average prevalence of all forms of tuberculosis in India is estimated to be 5.05 per thousand, prevalence of smear-positive cases 2.27 per thousand and average annual incidence of smear-positive cases at 84 per 1,00,000 annually.

It is a leading killer of women, too, as it kills more women than any other infectious disease does. It kills more women than all causes of maternal mortality combined. Women with tuberculosis are often severely stigmatized; a recent study in India suggests that more than 100,000 women are rejected from their families each year on account of TB.



Estimated Deaths in India in 1999 according to Ministry of Health and Family welfare India



Conclusion:

Exposure to the infection depends on the presence of new infection cases and is modified by a variety of factors. The risk factors are largely exogenous in nature. The infection is an air borne infection and the risk, thus, depends on the concentration of the TB Bacilli on the inhaled air and duration of exposure. Early case detection and effective treatment especially with DOTS (Directly observed treatment) not only cure patients but interrupts the transmission of TB in the community as well.