



Subclinical Tuberculosis

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Why in News?

Subclinical [Tuberculosis \(TB\)](#) is a growing concern in India, contributing to the slow **decline in TB incidence rates** despite advances in detection and treatment.

What is Subclinical Tuberculosis?

- **Definition:** Subclinical TB refers to a form of **TB infection where individuals do not exhibit the typical symptoms** of the disease, such as a persistent cough.
 - This makes it harder to detect compared to active TB, which presents with more apparent symptoms.
- **Detection:** It is often identified through imaging techniques like **chest X-rays or molecular tests**, as it may not be noticeable through routine symptom-based screenings.
- **Prevalence:** Subclinical TB accounted for **42.6% of cases in the National TB Prevalence Survey (2019-2021)**, with similar findings in Tamil Nadu (39%).
 - Although asymptomatic, individuals with subclinical **TB can still spread the bacteria to others.**
 - High-burden countries, including India, have a **considerable proportion of subclinical TB, which remains largely undetected**, thus sustaining the transmission of the disease.
 - Countries like Vietnam have successfully reduced TB prevalence by screening entire populations **using X-rays and molecular tests, regardless of symptoms.**
 - Implementing similar large-scale screening in India would require strategic shifts, including mobile units and community engagement.
- **Impact:** This form of TB can contribute to the slow decline in overall TB incidence rates, as it remains largely undetected and untreated.

What are the Key Facts About Tuberculosis?

- **About:** TB is an infectious disease caused by ***Mycobacterium tuberculosis***, that mainly affects the **lungs**. It spreads through the **air when infected people cough, sneeze or spit.**
- **Symptoms:** Prolonged cough, chest pain, weakness, fatigue, weight loss, fever, and night sweats.
 - Diabetes, weakened immune system, malnutrition, tobacco use can increase the risk of TB disease.
- **Prevention:** Seek medical attention, get tested if at risk, early treatment. The **Bacille Calmette-Guérin (BCG) vaccine** helps prevent TB outside the lungs but not in the lungs.
- **Prevalence and Treatment:** About 25% of the global population has been infected with TB bacteria. **5-10% of these infections progress to active TB disease.**
 - TB is preventable and curable with **antibiotics**, typically including **isoniazid, rifampin, pyrazinamide, ethambutol, and streptomycin.**
 - **Multidrug-resistant TB (MDR-TB)** is caused by bacteria resistant to first-line drugs, treatable with costly and toxic second-line drugs.
 - MDR-TB remains a public health crisis, with only about **2 in 5 people accessing treatment in 2022.**

- **TB and HIV:** People living with [HIV \(human immunodeficiency virus\)](#) are **16 times more likely to develop TB**. TB is the leading cause of death among people with HIV.
 - Without proper treatment, **60% of HIV-negative people with TB and nearly all HIV-positive people with TB will die.**
- **Impact:** TB disproportionately affects adults in low and middle-income countries, with over **80% of cases and deaths occurring in these regions**. The highest burden is in the [World Health Organization's \(WHO\)](#) South-East Asian and African Regions.
 - A total of 1.3 million people died from TB in 2022 (including 167 000 people with HIV). Worldwide, TB is the second leading infectious killer after Covid-19.
- **Initiatives Related to TB:**
 - **India:**
 - [The National TB Elimination Programme \(NTEP\) to Eliminate TB by 2025.](#)
 - [Ni-kshay Mitra Initiative.](#)
 - [Direct Benefit Transfer \(DBT\)](#) provided to TB patients.
 - [TB-Mukt Panchayat Initiative:](#) Launched to leverage the support of over 2.5 lakh Gram Panchayats to increase TB awareness, eliminate stigma, and improve service uptake.
 - [Pradhan Mantri TB Mukt Bharat Abhiyan \(PMTBMBA\)](#)
- **Global:**
 - **The Global Tuberculosis Programme by the [World Health Organization](#)** works towards the goal of a world free of TB, with zero deaths, disease and suffering due to the disease.
 - Global Plan to End TB 2023-2030 is a plan to end tuberculosis as a public health challenge by 2030, in line with the [UN Sustainable Development Goals](#).
 - **SDG 3 aims** to prevent needless suffering from **preventable diseases and premature death** by focusing on key targets that boost the health of a country's overall population.
 - [Global Tuberculosis Report.](#)

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Tuberculosis



Drishti IAS

Tuberculosis (TB) is an infectious disease that affects the lungs. Tuberculosis is preventable and curable.

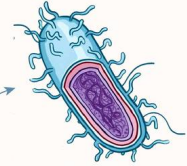
Prevention

- 📞 Seek medical intervention if symptoms persist
- 📞 If at a higher risk (HIV patients), get tested for TB.
- 📞 Practice good cough hygiene: Wear a mask and avoid contact



Causes:

- *Mycobacterium tuberculosis*
- Coughing droplets
- Prolonged exposure from a patient



Symptoms of TB:

Chest pain
Weakness
Weight loss
Fever
Night sweats
Prolonged cough

Facts

- 1.6 million deaths in 2021 Worldwide
- 13th leading cause of death
- India aims to achieve the UN's TB-related SDGs by 2025, five years ahead of the global target to end the TB epidemic by 2030.

#Tuberculosis

Ni-kshay Programme

- Nikshay Mitra are individuals or groups who adopt one TB patient for their treatment for a period of 6 months
- Provision of free drugs and diagnostics
- Ni-kshay Poshan Yojana for nutritional support to TB patients

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. Which of the following diseases can be transmitted from one person to another through tattooing? (2013)

1. Chikungunya
2. Hepatitis B
3. HIV-AIDS

Select the correct answer using the codes given below:

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: (b)

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