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News: Subclinical Tuberculosis (TB)

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

Subclinical Tuberculosis (TB)

- Subclinical Tuberculosis (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.**
- 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.**
- **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.
- This form of TB can contribute to the slow decline in overall TB incidence rates, as it remains largely undetected and untreated.

Tuberculosis

- Tuberculosis (TB) is caused by bacteria (*Mycobacterium tuberculosis*) that most often affect the lungs.
- TB is spread from person to person through the air.
- When people with TB cough, sneeze, or spit, they propel the TB germs into the air.
- Symptoms are cough with sputum and blood at times, chest pains, weakness, weight loss, fever, and night sweats.
- TB is a preventable, treatable and curable disease with antibiotics, typically including isoniazid, rifampin, pyrazinamide, ethambutol, and streptomycin.

- It is treated with a **standard 6-month course of 4 antimicrobial drugs** that are provided with information, supervision, and support to the patient by a health worker or trained volunteer.
- Anti-TB medicines have been used for decades and strains that are resistant to 1 or more of the medicines have been documented in every country surveyed.
- **Multidrug-resistant tuberculosis (MDR-TB) is a form of TB caused by bacteria that do not respond to isoniazid and rifampicin, the 2 most powerful, first-line anti-TB drugs. MDR-TB is treatable and curable by using second-line drugs.**
- **Extensively drug-resistant TB (XDR-TB) is a more serious form of MDR-TB caused by bacteria that do not respond to the most effective second-line anti-TB drugs, often leaving patients without any further treatment options.**
- **About 25% of the global population has been infected with TB bacteria. 5-10% of these infections progress to active TB disease.**
- **India is committed to eliminating tuberculosis from the country by 2025, five years ahead of the global target by the World Health Organisation (WHO) i.e., 2030.**
- To align with the ambitious goal, the programme has been renamed from the Revised National Tuberculosis Control Programme (RNTCP) to **National Tuberculosis Elimination Programme (NTEP)**.

- Recently, the **Ministry of Health and Family Welfare** has launched the annual **Tuberculosis (TB) Report 2021**.

Tuberculosis Cases in India

- India has the largest **caseload, 2.8 million tuberculosis patients, across the world**. It accounts for **27% of the world's TB cases**.
- People living with **HIV are the most vulnerable among all those TB patient groups** which have other comorbidities (rate of death). Hence, the World Health Organization lays social emphasis (through awareness programs) on them.
- India accounts for **9% of all HIV-associated TB deaths in the world, the second-highest number globally**.
- India **reported a case fatality ratio of 12%**, indicating that **12% of TB cases in the country resulted in death**.
- A total of **92,000 HIV-associated TB patients were recorded on an annual basis**.
- Awareness among TB patients about their HIV status has gone up to **81% from 67%**.
- The other such group is patients suffering from diabetes. According to the report, **20% of all TB cases in India also suffer from diabetes**.

Government Initiatives

- **Nikshay Ecosystem:** It is a **National TB information system which acts as one-stop solution to manage the information of patients** and monitor program activity & performance across the country.
- **Nikshay Poshan Yojana (NPY):** NYP scheme was launched with the **aim of providing financial support to TB patients** for their nutrition.
- **TB Harega Desh Jeetega Campaign:** This campaign was launched in September 2019 with the highest level of commitment to eliminate TB.
- **Saksham Project:** This project was launched by Tata Institute of Social Sciences (TISS) to provide psychosocial counselling to Drug resistant-TB patients.
- Based on the score in **State TB Index, Himachal Pradesh was the top performing state for tuberculosis control under the category of states with 50 lakh population.**
- **Lakshadweep and Budgam district in Jammu and Kashmir were declared Tuberculosis free.**
- Recently, BRICS Virtual Summit hosted by India, decided to conduct a study on the **epidemiological impact and intersection of the COVID-19 and Tuberculosis pandemics in these countries.**