

# **Understanding the TB Challenge**

#### What is the issue?

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• India has a high prevalence of TB with an annual incidence of 28 lakhs or 27% of the total global TB incidences.

Hence, India is currently the TB capital of India and to outsmart the disease,
India must intercept - infection, progression and transmission.

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#### What is TB?

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- Tuberculosis (TB) is a disease caused when one gets infection with TB bacilli.
- $\bullet$  It has the unique character of mimicking other diseases and hence confuses doctors, which delays diagnosis and further treatment. \n
- Notably, the common symptom associated with Cough and blood in sputum occurs only in lung TB and there are others like Brain TB, Pelvic TB etc...
- TB can affect the lungs, brain, bones, joints, the liver, intestines or for that matter any organ and can progress slowly or kill in weeks.
- There are 3 distinct stages in TB infection, progression, transmission.
- **Infection** Infection occurs when TB bacilli are inhaled and the Bacilli may stay in the lungs or travel to other organs.
- Once infected, the bacillus persists lifelong inside an organism's body, but lies dormant - This phase is "latent TB".
- This can be diagnosed by a 'Tuberculin Skin Test' (TST) and cumulatively, 40% to 70% of us are estimated to be living with latent TB.

- **Progression** From this dormant bacterium pool, a few germs slowly lead to the progression of disease in a time span of anywhere between 5 30 years.
- $\bullet$  Hence, the TB disease sets in only when bacilli become active and starts multiplying, and this phase is called "active TB". \n
- **Transmission** Only when active TB affects the lungs do bacilli find an exit route to the atmosphere, which is the only mode of transmission.

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#### What is the current status of TB in India?

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- $\bullet$  The incidence rate of tuberculosis (TB) in India is estimated at 200-300 cases per lakh population per year, whereas it is only 5 per lakh in Europe. \n
- Revised National TB Control Programme (RNTCP) provides for free diagnosis and treatment, but it doesn't track incidences and there are no targets.
- Estimates are that every day 1,200 Indians die of TB, a calamity rate unrivalled by any other disease and a clear indication that control efforts are failing.

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 $\bullet$  Hence, this calls for a more robust and specific health interventions to foster a deliberate reduction of incidence to as low as practicable. \n

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## What are the challenges?

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- While curative treatment is the patient's urgent need, it will not control the spread of TB as germs already gets spewed due to delayed diagnosis.
- As cough is a very common symptom, TB isn't suspected until other treatments have failed, which delays targeted treatment.
- Inclination to self-medication thought pharmacies, where patients don't see a doctor until thing get complicated is another worry in India.
- Additionally, according to RNTCP guidelines, testing is done only after two

weeks of consistent cough, which results in the loss of precious lead time.  $\n$ 

• Also, 70% of people seek treatment in the private sector and as the mandatory reporting system for TB isn't rigourous – incidences might be underestimated.

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• Hence, strengthening public-private sector health partnership and establishing efficient primary health care services is essential for early diagnosis of TB.

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### What is the way forward?

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- $\bullet$  Dealing with TB requires mass initiatives health professionals, policy planners and administrators and the public must come together to solve it. \n
- **Prevention** Public education on TB and its prevention must replace ignorance and misconceptions that are presently prevalent.
- While dealing with the disease after onset is difficult, it is easier prevent transmission and infection by healthy public etiquettes.
- TB cases can be greatly reduced if basic health sensitiveness of not spitting in public and "mouth covered cough and sneeze practices" are adopted.
- Notably, a person with "Lung TB" disseminates TB bacilli over several weeks and by the time dissemination stops, it would've already affected many others.

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- To block transmission, treatment should begin as soon as symptoms show up, which will effectively bring down incidences.
- **Treating latent TB** Drug treatment of "latent TB" is an option and it has been recommend for all children in the 5-10 age group to be screened for **TST**.

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- Treatment of latent TB will prevernt its progression to active TB and consequently bring down the "Annual Risk of Tuberculous Infection" (ARTI).
- While these will take as much as 2 to 3 decades, this is the only way to acheive sustained reduction of TB incidences and a start has to be made

now.

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 $\bullet$  Any further delay can be catastrophic as the TB microbes are increasingly becoming multi drug resistant.  $\ensuremath{\backslash} n$ 

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**Source: The Hindu** 

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