



Paradigm Shift for TB Control

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(This editorial is based on the article 'Paradigm Shift for TB Control' which appeared in 'The Hindu' on 26th March, 2019. The article talks about the burden of TB on public health and the shortcomings of various health programs. It also talks about the potential attitudinal change required to combat the disease.)

World TB Day marks the global resolve in eradicating tuberculosis (TB). While many countries have successfully defeated the disease, it remains the biggest killer in India, outnumbering all other infectious diseases put together — this despite our battle against it from 1962, when the National TB Programme (NTP) was launched.

In 1978, the Expanded Programme on Immunisation (EPI) began, giving Bacillus Calmette Guerin (BCG) to all babies soon after birth and achieving more than 90% coverage. Yet, when evaluated in 1990, the NTP and the EPI had not reduced India's TB burden.

In 1993, the Revised National TB Control Programme (RNTCP) was launched, offering free diagnosis and treatment for patients, rescuing them from otherwise sure death. However, **treatment is not prevention. Prevention is essential for control.**

The Killer Disease

- India accounts for about a quarter of the global TB burden. Worldwide India is the country with the highest burden of both TB and Multi Drug Resistance (MDR)TB. There are an estimated 79,000 multi-drug resistant TB patients among the notified cases of pulmonary TB each year.
- India has consistently failed in manning the two of the primary routes required to reduce TB incidence and death that are diagnosis and treatment, areas where "large and persistent" gaps remain.
- Early symptoms of TB are non-specific, and quite similar to more commonly occurring conditions, such as secondary infections resulting from seasonal flu. Private practitioners rule out other ailments through antibiotic treatment before ordering TB tests. **Delayed TB diagnosis is the biggest risk factor for transmission.**

- Half of the estimated patients are either unaware that they have TB, or are unreported in the government's e-registry for TB, Nikshay. Infected patients infect others in the community while undiagnosed. TB transmission can't be ended until they are cured.
- Non-specific antibiotic courses, multiply the risk manifold, causing the infection to become antibiotic-resistant.
- Shortfalls in TB funding are one of the main reasons why progress is not fast enough to be on track to reach the end TB targets
- Even when tests and treatment are available for free across all public health centres, and patients can claim a nutritional incentive of ₹500 per month until fully cured, the current decline rate of TB in India is a worrying 1-2%.

Loopholes in National Programs

Despite starting early with National TB Program and Expanded Program on Immunization in 1960s, the state failed to check the growth of incidence of TB. The main cause of NTP failing was complacency and lack of resources, especially financial.

The Revised National TB Control Program (RNTCP) which has been successful in curing pulmonary TB too falls short of controlling the spread of TB.

In countries with 5-10 cases in a lakh people annually, curing TB sustains the low disease burden. In India, with 200-300 cases in a lakh in a year, curing TB is essential to reduce mortality, but is not sufficient to prevent transmission.

From a time a person becomes infectious to when she/he turns non-infectious by treatment, there is a gap of several weeks during which the infection saturates contacts in the vicinity making more people vulnerable to disease.

It is not possible to diagnose everyone as the disease exhibits common symptoms such as those of cough and flu and sometimes infection also remains silent making the control even more cumbersome.

Rapid expansion of RNTCP has outpaced the capacity of national and state health authorities to supervise the programme and to maintain high quality which has led to decline in case detection and cure rate in some areas. Country also suffers from acute shortage of accredited laboratories.

The program also lacks public participation and fails in allaying superstition and the appalling ignorance in the society about the disease, its spread and causation.

Way Forward

TB control requires the slowing down of infection, progression and transmission. Pulmonary TB causes transmission, resulting in infection which leads to progression as TB disease. To transform this vicious cycle into a virtuous cycle of TB control, spiralling down TB prevalence continuously, transmission, infection and progression must be addressed simultaneously.

There is a need to bring change in the health etiquettes in the society through public education for behaviour modification, starting in all schools and continuing through to adults.

One must reduce chances of transmission by insisting that the TB affected should cover their mouth and nose while coughing and sneezing and not to spit in open spaces which are only possible with enhanced Information Education Communication (IEC) activities by providing pamphlets, booklets in simple language to every general patient and public.

Cohorts of schoolchildren (5, 10 and 15 years) can be tested and those Tuberculin Skin Test (TST) positive given preventive treatment. It achieves three results at one go — an infected child gets preventive treatment and points to adults with undiagnosed TB in the household. Finally, the annual TST positive rate provides an objective measure of annual infection frequency for plotting the control trajectory.

To defeat TB and achieve Indian goal of eradicating TB by 2025, both rigorous and persistent efforts are required. There is a need to develop a strong political will for TB control as **rhetoric and declarations cannot control TB; a strategy of simultaneously using all biomedical and socio-behavioural interventions can.**