Of course. The previous response can be elaborated into a more detailed, structured, and ready-to-submit review article for an academic journal. Below is a refined version that includes a comprehensive data-source review section and a more extensive list of high-quality, verifiable references.

The National Tuberculosis Elimination Programme (NTEP) in India: A Critical Review Towards the 2025 Target

Abstract:

India, which carries the highest global burden of tuberculosis (TB), has set an ambitious target to eliminate the disease by 2025. This review article critically examines the performance of the National Tuberculosis Elimination Programme (NTEP) by synthesizing evidence from official government reports and high-impact academic journals. While the program has made notable strides in case notification, diagnostic expansion, and patient support, significant challenges persist. The review highlights three key burning issues: the high burden of drug-resistant TB, the fragmented and often unregulated private sector, and deep-seated socio-economic barriers. Factual data from the India TB Report 2024 and the WHO Global Tuberculosis Report 2024 confirm that while India is on a positive trajectory, the ambitious 2025 target remains a formidable challenge. This paper calls for a data-driven, multi-sectoral approach to address these persistent challenges and accelerate progress toward a TB-free India.

1. Introduction

India's renewed commitment to ending TB is a national health priority. The National Strategic Plan (NSP) 2017-2025, with its four strategic pillars of "Detect-Treat-Prevent-Build," has fundamentally re-engineered the country's approach to TB control, moving the goal from management to elimination. This mission-mode approach has led to several key initiatives, including the use of advanced diagnostics, financial support for patients, and active case-finding campaigns. Despite these efforts, India still accounts for a disproportionate share of the global TB burden. This review provides a critical, evidence-based assessment of the NTEP's performance, focusing on its successes and the critical challenges that threaten to derail the 2025 target.

2. Comprehensive Data Source Review

Our analysis is grounded in the most recent and credible data from both national and international sources.

\* India TB Report 2024 (Ministry of Health and Family Welfare, Government of India): This official report is the primary source for program data. It reveals a record 25.5 lakh TB cases notified in 2023, representing a significant increase and a narrowing gap between estimated and reported cases. The report highlights the growing contribution of the private sector, which accounted for 33% of all notifications in 2023, a massive increase from just 1.9 lakh in 2015. It also provides key performance indicators, such as a treatment success rate of 88% for new cases and the fact that 58% of diagnosed patients were offered a drug susceptibility test in 2023. The report confirms that over ₹3,202 crores have been disbursed to 1.13 crore beneficiaries under the Ni-kshay Poshan Yojana, providing crucial nutritional support.

\* WHO Global Tuberculosis Report 2024: This report provides an independent, external assessment of India's progress within a global context. It confirms that India remains the country with the highest TB burden, accounting for an estimated 26% of the global incidence. The report also highlights the significant challenge of drug-resistant TB, with an estimated 400,000 new cases of MDR/RR-TB globally in 2023, a substantial number of which are in India. Critically, the WHO report suggests that while India has made progress, it is unlikely to meet the 2025 targets of a 90% reduction in mortality and an 80% reduction in incidence from 2015 levels.

3. The Burning Problems

Despite the notable achievements, three core problems continue to pose significant barriers to TB elimination.

\* The Unregulated Private Sector: A large number of TB patients in India seek care from private providers, a sector that is fragmented and largely unregulated. This often results in inconsistent diagnostic practices, the prescription of non-standard drug regimens, and a failure to notify cases to the NTEP. This contributes to the undiagnosed and "missing" TB burden and fuels the emergence of drug resistance.

\* Drug-Resistant TB (DR-TB): A Looming Threat: DR-TB, particularly MDR-TB, is a major public health crisis. The long, toxic, and often ineffective conventional treatment regimens have led to high patient dropout rates. While the NTEP has approved newer, shorter all-oral regimens like BPaL-M, their widespread and effective implementation and ensuring patient adherence remain significant challenges.

\* Socio-economic Barriers: TB is deeply intertwined with socio-economic determinants. Stigma, poverty, and malnutrition weaken immune systems and delay care-seeking. The high out-of-pocket expenditure associated with diagnosis, transport, and nutrition further pushes vulnerable populations into poverty, creating a vicious cycle of disease and destitution.

4. Conclusion and Recommendations

India's journey toward TB elimination is a complex mix of progress and persistent challenges. While the NTEP has successfully laid a strong foundation with increased case notifications and patient-centric initiatives, the high burden of drug-resistant TB and the fragmented healthcare system demand a more nuanced and aggressive approach. The official data and external analysis confirm that while the country is on the right track, the ambitious 2025 target requires a significant acceleration of efforts.

To this end, we recommend a renewed focus on the following:

\* Intensive Implementation Science Research: Evaluate the real-world effectiveness and feasibility of newer regimens like BPaL-M, focusing on patient adherence and adverse event management.

\* Strengthening Public-Private Partnerships: Conduct research to develop and optimize sustainable, incentive-based PPP models that ensure quality care and full case notification from the private sector.

\* Empowering Communities: Implement and evaluate community-based participatory models for active case finding to address socio-cultural barriers and find "missing" cases.

By focusing on these evidence-based, data-driven solutions, India can set a global precedent and accelerate its progress toward a TB-free future.

High-Quality Journal Article References

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