How can TB Mukt Panchayat initiative contribute towards ending tuberculosis in India?

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Summary

Community Engagement (CE) for disease control and health has been tested for a long time across the globe for various health programmes. Realizing the need for true multisectoral action and CE and ownership for ending TB on an accelerated timeline, the Government of India launched a nationwide campaign for 'TB *Mukt Panchayat*' (meaning 'TB free village council' in Hindi language) on 24 March 2023, banking on the system of local self-governments in the country. Though it is an initiative with huge potential to contribute to India's efforts to end the TB epidemic, it is not without a few shortcomings. We critically analyse the TB *Mukt Panchayat* initiative and suggest a few recommendations for the way forward.

Keywords: Community engagement; TB *Mukt Panchayat*; TB elimination

Introduction

Community Engagement (CE) for disease control and health promotion has been globally tested for various health programmes.[1,2] The collective nature of populations, especially in low- and middle-income countries (LMICs), could be utilized effectively for public health interventions. These interventions could be community-based, i.e, using the community as the intervention site or targeting the community, community as a resource, or community as an agent for change.[3] A review by Questa et al. highlights the usefulness of CE initiatives for communicable disease control, especially in LMICs.[2] Various CE strategies have been utilized in health programmes in India, including reproductive, maternal and child health programme and HIV/AIDS control programme, but with a vertical approach. The village-level local self-government (LSG) bodies in India, called *Panchayats*, comprises of people's representatives and are excellent platforms to be leveraged for CE initiatives. *Panchayats* are responsible for ensuring the availability of quality services for the community, especially the marginalized, through local self-governance. Pertaining to health, they have specific mandates for facilitating healthcare service delivery to the community through Health Sub Centres, Health & Wellness Centres (HWCs)/Ayushman Aarogya Mandirs, monitoring through sub-committees called Village Health Sanitation and Nutrition Committees (VHSNCs) and Jan Arogya Samitis (JAS); advocacy for health and community mobilization.[4,5]

Being the world's largest contributor to the burden of tuberculosis (TB) including drug-resistant TB (DR-TB), accounting for 27% of the global estimated people with TB, India is on a commitment to achieve the Sustainable Development Goal (SDG) targets for ending TB on an accelerated timeline by 2025.[6] The National TB Elimination Programme (NTEP) of India released a National Multisectoral Action Framework for TB-Free India 2019 which aims to achieve end TB goals by mounting an accelerated and comprehensive multisectoral response. This framework emphasized that ending the TB epidemic is a 'whole-of-society struggle' rather than a health sector struggle alone.[7] Realizing the need for true multisectoral action and CE and ownership, the government launched a nationwide campaign for 'TB *Mukt Panchayat*' (meaning 'TB-free village council' in Hindi language) on 24 March 2023, banking on the system of LSGs in the country. The TB *Mukt Panchayat* Initiative (TBMPI) is based on the concept of 'healthy villages for a healthy nation', as envisaged by Mahatma Gandhi.[8] The initiative has a huge potential to contribute to

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India's efforts to end the TB epidemic, but it is not without a few shortcomings. We critically analyse the TB *Mukt Panchayat* initiative and suggest recommendations for the way forward.

Leveraging the *Panchayati Raj* system for achieving end TB goals

The *Panchayats* in India are village-level elected bodies for decentralised governance, under the Ministry of *Panchayati Raj* and have the status of LSGs by the 73rd amendment of the Constitution Act 1992.[9,10] They can include a population ranging from 750 to 25,000.[11] TBMPI leverages the existing 255,000 village-level LSGs in the *Panchayati Raj* system to achieve India's goal of Ending TB by 2025.[12] The broad objective is to empower the LSGs to realize the extent and magnitude of problems associated with TB, take necessary actions towards solving them, create healthy competition amongst villages and to appreciate their contribution.[8]

A set of verification indicators has been decided by NTEP for an LSG to qualify for the 'TB-free' status (Table 1). For a village to obtain 'TB-free' certification valid for one year, the first two indicators should be mandatorily achieved in >80% geographic units under the LSG; for the rest of the indicators, at least three out of four should be achieved by >80% geographic units. Yearly claims submitted by the LSGs would be verified by a team at the district level including health department and *Panchayati Raj* Institution (PRI) officials at district level, representatives from doctors' organisations and public health professionals.[8]

Can India beat TB with the initiative?

While TBMPI is a unique CE initiative which aims at empowering communities to create a people's movement for ending TB, we must look at it with a realistic lens (Table 2).

Strengths:

- This is a first-of-its-kind initiative which involves the LSG system of the country on a large scale for a disease control/elimination programme. This would essentially require multi-department collaboration and would lead to an open communication channel between the health department and the PRIs. Also, the political will solicited from the LSGs helps in ensuring accountability for the initiatives.
- The LSGs being responsible for multiple public schemes aimed at the overall welfare of the community it governs, are excellent choices to address the social determinants of health. This will hugely benefit end TB goals, as determinants like nutrition, housing, poverty alleviation and social security would be addressed.
- Epidemiological indicators used for the verification of TB-free status claims include presumptive TB examination rate (PTBER) along with TB Case Notification Rate (CNR), rather than CNR alone. This is expected to improve the PTBER in the community, which is currently abysmally low. Improved PTBER would mean that large number of symptomatic people are tested and hence will be helpful to reduce the 'missing millions' to be diagnosed.
- The concept of the initiative- 'healthy villages for healthy nation', intends to lead to a people's movement to prioritise health, not sickness. This would be beneficial for all health programmes, not only NTEP.

Weaknesses:

- Even though envisaged as a collaborative activity between the local health departments and the PRIs, there is lack of defined mechanisms for periodic review by PRI nodal persons at district/state/national levels, to track the process indicators. There is an overemphasis on the certification and awarding system in the documents and trainings, which is originally meant for the purpose of motivating the *Panchayats* for involving in TB care cascade activities and prevention. One of the endpoints defined for the initiative is annual CNR of ≤1 per 1000 population. This does not mean an epidemiologic certification of a 'TB-free' status, as ending TB epidemic (pre-elimination phase) requires an annual incidence of <10 cases of infectious TB per million population and TB elimination requires an annual incidence of <1 case of infectious TB per million population.[13,14] Hence the scientific validity of the term 'TB-free' is questionable.
- The current web-based case surveillance system of NTEP, called Ni-Kshay portal, does not capture the *Panchayat* level data. Patient registers capture the diagnosing facility TB Unit, current facility TB Unit and address of the patients, and not their residential facility. In this pretext, deriving the *Panchayat*-level baseline data on the indicators is a mammoth task.
- No robust evaluation systems have been planned to ensure the sustainability of this initiative. The fact that the 'TB-free' status has to be maintained continuously through activities like increased TB case finding, ensuring treatment adherence and completion, contact tracing and TB preventive treatment (TPT) initiation and addressing social determinants like nutrition, housing, is not being highlighted.
- There is lack of clarity on the budget heads to be utilised for the activities

Opportunities:

- This initiative is a golden opportunity to focus on improving process indicators like TB case finding,

Sl No:	Indicator	Target
1	No of presumptive TB examination per 1000 population (PTBER)	≥30 per 1000 (for the year) in the village
2	TB case notification rate per 1000 population (CNR)	≤1 per 1000 (for the year) in the village
3	Treatment success rate (Percentage of notified persons with TB who are documented to be cured, or to be successfully completed treatment)	>85%
4	Drug susceptibility test rate (DST rate) (Percentage of bacteriologically confirmed persons with TB with valid rapid drug sensitivity test result for at least Rifampicin)	At least 60%
5A	Ni-kshay Poshan Yojana (Percentage of eligible beneficiaries paid at least one instalment of direct benefit transfer for nutritional support)	100%
5B	Nutritional support to TB patients under Pradhan Mantri TB Mukt Bharat Abhiyaan (Percentage of eligible beneficiaries receiving additional nutritional support in the form of donor-initiated food baskets)	100%

Table 1: **List of indicators and annual targets for a *Panchayat* to qualify for raising claim for 'TB-free' status under the TB *Mukt Panchayat* initiative.**

treatment initiation, adherence and completion rates; reducing loss to follow up, with the involvement of community. Including LSGs in these processes and making them robust can go a long way in our fight against TB.

- Linkage of public schemes–poverty alleviation, livelihood management, nutrition, social security, housing, sanitation, healthcare and infrastructure development–at the *Panchayat* level can help achieve end TB goals.
- VHSNCs are the nodal bodies responsible for implementing various national health programmes and providing a grievance redressal mechanism. However, some of the VHSNCs are defunct due to multiple reasons. This is a good opportunity to revive them to be the flagbearers of the initiative. They could also be utilised in assessment of village health status by introducing TBMPI indicators into their community monitoring tool used for the routine quarterly monitoring of village health services. Alternatively, a sub-committee could be constituted under the VHSNC exclusively for TBMPI monitoring.
- National TB Prevalence Survey 2019-21 shows that 63% of symptomatic individuals did not go for screening/testing.[15] Maintaining the existing presumptive TB registers in Ni-Kshay at HWC level, and monitoring them regularly under the initiative, will generate information on the pre-testing loss to follow up and would help close this gap over a period of time.
- Cohort-wise tracking of villages on the TB epidemiological indicators for years could be planned which would provide valuable data on trends of disease and programme performance.
- Potential for operational research is plenty within the initiative, provided the outcomes are made more specific. Implementation models could be piloted within the initiative involving multiple sectors with the help of LSGs for end TB activities, for example,

Strengths	Weaknesses
1. Multisectoral collaborative initiative which opens up communication channels between departments and also solicits high level of political will	1. Lack of periodic monitoring mechanism, PRI representation in monitoring
2. LSG schemes for community welfare can strengthen end TB activities	2. Overemphasis on certification/award
3. Inclusion of PTBER as an indicator than CNR alone	3. Lack of *Panchayat*-level TB surveillance data
4. Prioritisation of health, not sickness	4. Lack of robust evaluation mechanism which threatens sustainability
	5. Budget heads for planning not specified
Opportunities	**Threats**
1. Opportunity to improve process indicators	1. Awareness generation if not accompanied by public health infrastructure strengthening will be wasteful
2. LSG level linkage of various social welfare schemes could be leveraged to end TB	2. Disproportionate burden on frontline workers
3. Chance to revive defunct VHSNCs and make them flagbearers of the initiative	3. Overemphasis on certification/award carries risk of data falsification
4. Pre-testing loss to follow-up of symptomatic individuals could be prevented through documentation at HWC level	4. 'TB-free' term may lead to complacency
5. Cohort-wise tracking of villages on the TB epidemiological indicators over the years	5. Opportunity cost of time of NTEP officials
6. Potential for operational research/implementation research	
7. Utilisation of the talent pool of public health professionals in medical colleges	
8. Integration of TBMPI activities into FAP of medical students	

Table 2: **Summary of strengths, weaknesses, opportunities and threats of the TB *Mukt Panchayat* initiative.**

transforming local rural pharmacies as screening points and sample collection hubs; and engagement of local medium and small-scale industries for augmented TB-free workplace interventions. Data derived from these pilot projects could pave way for a nationwide scale up and integration into policy.
- Substantial talent pool of epidemiologists and public health professionals in the medical colleges are envisaged to be part of the claim verification team, which is a hitherto underutilised share of human resources.
- Medical colleges could ensure that villages in their field practice area are made TB-free by active involvement with the panchayats. The National Medical Commission also mandates a Family Adoption Program for undergraduate medical students, through which active case finding, TB preventive treatment and management of cases on treatment could be ensured by suitable training of the students.

Threats:

- Momentum gained in healthcare seeking by community due to heightened awareness could be rendered ineffective if it is not accompanied by public health infrastructure strengthening. Local healthcentres need to be equipped to screen, test, and treat TB.
- As is the ground reality with most of the novel initiatives, the burden of achieving targets may disproportionately fall upon the shoulders of the frontline workers. This could be detrimental to the sustainability of the initiative as well.
- Overemphasis on certification/award may lead to the falsification of numbers, the use of political power to win awards unfairly and an unnecessary burden on frontline workers and existing NTEP staff.
- The questionable term 'TB-free status' may lead community and healthcare providers to be complacent and believe that they are now free from the threat of TB forever.
- There is a likelihood of the whole campaign consuming a lion's share of the time of the NTEP officials, as it involves year–long activities collaborating with multiple stakeholders. This could lead to operational difficulties. We already have the example of the yearly exercise of sub-national elimination certification for TB, which takes up a substantial amount of working hours of the NTEP staff. This is a huge opportunity cost for the programme. The same may happen with TBMPI also.

Discussion

CE initiatives for strengthening TB care cascade activities have been tried and tested globally with good outcomes. In Tanzania, a multisectoral engagement through community-led monitoring and evaluation of TB programme and creation of a community referral system for TB led to improvement in service delivery.[16] Similarly, in Indonesia, a community-led advocacy campaign helped in mobilising local funds for TB control activities, which was hitherto given very little financial support or political commitment.[17] Decentralized health planning and local decision making are known to improve the health system performance, though literature providing an objective evaluation of the same is limited in India.[18] It is also proven that addressing social determinants of health is a crucial step in curbing diseases like tuberculosis and that a multisectoral collaborative action to ensure social infrastructural development in terms of housing, social security scheme awareness and coverage, literacy and inclusivity, can pay-off in a promising manner.[19] Within India, Kerala's collaborative 'mission' by the health and LSG departments went an 'extra-mile' by resource pooling for additional interventions beyond the ambit of NTEP, TB service linkage with other developmental initiatives, advocacy measures to ensure acceptance and civic adherence to interventions, ensuring uninterrupted TB care cascade activities and social support measures.[20] Several other pilot initiatives of effective PRI engagement have also been documented from selected districts in different states of India.[21]

In this context, a few recommendations for TBMPI are as follows:

- Trainings to health department and PRI personnel on monitoring and improving the process indicators like case finding, treatment initiation, treatment adherence and completion, rather than on the certification or award of 'TB-free' status should be emphasized. Moreover, the concept of 'TB-free' must be explained with a cautionary note to all stakeholders, to avoid complacency, unnecessary competition for award and subsequent burden on frontline workers. Interim monitoring of the initiative could also be done using these process indicators.
- While evaluating the indicators for certification/award, NTEP should be mindful of rewarding the efforts made by the LSGs for end TB activities by giving weightage to the process indicators (like *Panchayats* with TB in their development plan, sensitization activities done, case finding efforts etc.) and not merely the absolute numbers of the endpoints. This is because smaller populations like *Panchayats*, with small absolute numbers of TB patients, can show huge fluctuations altering the endpoints.
- The '*Panchayat* of residence' field could be introduced prospectively into Ni-Kshay, so that data is captured at the residential village level for people

with TB. This would ease data gathering and analysis in future.
- The terminologies related to TB care cascade would be new to PRI personnel, which could influence data capture and other reporting related to the initiative. Dedicated handholding mechanism for PRIs to navigate through Ni-Kshay and other recording/reporting processes must be arranged in the initial phase of implementation.
- The ongoing Ayushman Bharat initiative for strengthening delivery of comprehensive primary healthcare could be leveraged for TBMPI by training the newly created cadre of Community Health Officers (CHOs). This would help in burden sharing of frontline workers in NTEP and eventually integrate it as a component of their agenda.
- Epidemiology of TB is diverse in different states of the country. Rather than having a blanket initiative mandating all LSGs to follow a specific strategy, there must be room for local adaptation. A targeted approach could be followed, wherein the districts/states are stratified based on NTEP performance indicators as poor/moderate/good and special focus for interventions could be on districts/states which are poor performing. Also, the LSGs must be able to prioritize their local issues pertaining to TB and plan and implement local solutions for them.

Conclusion

The TB Mukt *Panchayat* Initiative, in totality, is envisaged to be a flagship programme of the Government of India in achieving the end TB goals on an accelerated timeline by utilising the power of CE. Being launched in March 2023 and still in the mode of initialization in many areas, it would be premature to do an impact analysis of the initiative. Hence, we have attempted to provide insights into improvising it for effective implementation. If implemented in the right manner, this could be one of the historic movements in health, built on the transformative power of local self-governments.

Contributors

RPS, HDS, NS, SKN and PS conceptualized the manuscript. SKN drafted and visualized the manuscript. HDS, RPS, NS, SKN and PS contributed to manuscript development, editing, and finalisation. All authors have read and approved the final version of the manuscript. All authors had final responsibility for the decision to submit for publication.

Declaration of interests

SKN is the lead collaborator for TB Mukt *Panchayat* initiative with the District NTEP in rural Maharashtra, a former national consultant for NTEP and a medical college faculty. HDS leads operational research projects of NTEP at national and state levels to implement and evaluate various interventions. RPS conceptualized the idea of TB Free Panchayat in 2017 and implemented it in the state of Kerala. RPS also provides expert technical assistance to institutional strengthening in NTEP at national level and various other countries of South East Asia. PS is the founder of a public health information and advocacy platform, a researcher at a non-profit think tank that generates evidence to facilitate policy change in the country and is also involved in medical college teaching. NS is a faculty involved in medical college teaching and a member of various national committees and advisory groups to NTEP. The analysis presented here is derived from their working experiences in TB programme.

We declare no competing interests. The views expressed in this manuscript are those of the authors and do not necessarily represent the official position of their organizations they are affiliated to.

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