

Implementation Reflections of a Nodal Officer on Active Case Finding for Tuberculosis under the National Tuberculosis Elimination Programme in Puducherry, India

Sengadhir Vendhan R^{1}, Elanchezhian D², Vasanthakogilam M³*

ABSTRACT

This article describes the experiences of a nodal officer in leading an Active Case Finding (ACF) campaign for tuberculosis (TB) as part of India's National Tuberculosis Elimination Program (NTEP). The campaign, conducted across several Primary Health Centres (PHCs) in "Puducherry", focused on early detection of TB in high-risk communities. A team of ASHA workers, Anganwadi workers, and interns carried out door-to-door screenings. Data was gathered using EpiCollect5, which facilitated real-time updates and precise, accurate reporting. Although there were challenges with logistics and some resistance from the community, the campaign demonstrated how important community engagement and cultural understanding are for practical public health work. This report details the operational aspects of ACF and proposes improvements for future campaigns.

Keywords: Active Case Finding, Tuberculosis, National Tuberculosis Elimination Program, Field Experience, India

GJMEDPH 2025; Vol. 14, issue 3 | OPEN ACCESS

1*Corresponding author: Sengadhir Vendhan, Department of Community Medicine, Pondicherry Institute of Medical Sciences, Puducherry, India. Email: seyonsenga1404@gmail.com; **2.** Department of Community Medicine, Pondicherry Institute of Medical Sciences, Puducherry, India. Email: eladreams93@gmail.com; **3.** Vasanthakogilam M, Department of Community Medicine, Pondicherry Institute of Medical Sciences, Puducherry, India. Email: neerajaneerumvk@gmail.com

Conflict of Interest—none | Funding—none

© 2025 The Authors | Open Access article under CC BY-NC-ND 4.0

INTRODUCTION

Tuberculosis (TB) remains a significant public health challenge in India, particularly among marginalised populations, where active detection is essential to reduce transmission (1). India's National Strategic Plan for Tuberculosis Elimination introduced Active Case Finding (ACF) under NTEP to address this need by targeting high-risk communities (2). ACF initiatives are essential for identifying symptomatic individuals who might not seek care independently, especially in resource-limited settings where TB-related stigma persists (3). This manuscript details the experiences of a nodal officer conducting ACF in Puducherry, emphasising the campaign's logistical challenges, community engagement, and operational insights (4).

ROLE AS A NODAL OFFICER

Monitoring and Coordination: My role involved ensuring the team closely followed NTEP guidelines,



Image 1: An intern writing the ACF (Active Case Finding) code on the household wall during a tuberculosis screening visit.

Resource Organisation

Key diagnostic tools, such as mobile X-ray units, were strategically arranged to facilitate easier

managing door-to-door screenings, and maintaining accurate data collection and reporting (5).

Data Management: We utilised EpiCollect5 for entering data on the spot, ensuring timely and reliable information. This approach enabled us to stay on top of large amounts of data effectively in a busy field setting (6).

Resource Allocation: With the assistance of medical officers, we established mobile units equipped with chest x-ray machines and CBNAAT devices. This made diagnostics more accessible, especially in rural areas where healthcare is harder to obtain (7).

MATERIALS AND METHODS

Mapping and Initial Survey: We began by mapping the population in the area to ensure thorough coverage and effective use of resources (3). This early planning enabled us to establish routes and daily schedules for the field teams.

access to services for people in remote areas (7). This setup reduced the need for travel, especially for those in hard-to-reach locations (8).



Image 2: Chest X-ray being performed for a tuberculosis-suspect patient inside a mobile diagnostic unit.

Training and Capacity Building

The training sessions equipped the team with the skills to identify TB symptoms, communicate

sensitively, and utilise EpiCollect5 for digital data entry. Focusing on cultural sensitivity helped build trust and reduce TB stigma within the community (9).



Image 3: Training certificate for Active case finding for Tuberculosis in Puducherry

FIELD EXPERIENCES DURING ACF

Community Engagement

For this campaign, getting the community on board was crucial. ASHA and Anganwadi workers, who

are familiar with the people and culture, were the backbone here. Their connections made it possible to earn trust, especially in rural areas where people may feel uncomfortable about TB (8).



Image 4: A household survey is being conducted by an intern

Logistical Challenges

Coordinating mobile X-ray units across different locations was no easy task, especially given the limited transportation options. However, with the support of medical officers and by establishing a temporary diagnostic point, we managed to keep things moving (10).



Image 5: An intern handing over a Falcon tube to a patient for CBNAAT-based sputum testing during tuberculosis screening.

Data Collection and Management

We utilized EpiCollect5 for gathering data as we progressed, but it required some training to get everyone on board with it. My role as the nodal officer was to ensure the data was clean and accurate so we could rely on it entirely (5).

Challenges and learnings

Knowing and respecting local customs made a big difference. Involving community leaders helped us attract more people to participate and reduce resistance, especially in rural areas with deeply rooted traditions (9). We had to stay flexible. Setting up temporary screening points and adjusting schedules helped us work around transportation issues, whether caused by weather or limited local infrastructure (4). The commitment of ASHA and Anganwadi workers was central to our progress. Their close connections with the community boosted engagement and made the campaign much more effective (7).

Recommendations for future ACF Campaigns

Adding more mobile diagnostic units and field equipment would make it easier to handle logistical issues, especially in rural areas (8). Running awareness campaigns before the ACF starts can help

Coordination with Health Workers

Our team—interns, ASHA workers and Anganwadi workers visited homes to screen for symptoms. Ensuring adherence to NTEP protocols and addressing on-site challenges was essential to campaign effectiveness (6).

reduce stigma and make people more receptive to TB screening (6). Providing training in cultural sensitivity, digital data handling, and effective communication about TB would better engage health workers and improve data quality (10). Expanding the use of tools like EpiCollect5 would make it simpler to manage data, track progress in real time, and keep reports accurate (5).

CONCLUSION

The ACF campaign provided valuable insights into the challenges of managing a considerable public health initiative under NTEP. We learned that community engagement, flexibility with logistics, and using digital tools effectively were all essential. This experience highlighted the importance of ongoing training, strong support systems, and adaptable logistics in achieving successful TB elimination efforts (10).

ACKNOWLEDGMENTS

A big thank you to the interns, ASHA workers, Anganwadi workers, medical officers, and community leaders who made the ACF campaign possible. Their hard work and dedication were crucial in reaching people across the PHC areas and pushing forward TB control efforts in Puducherry.



REFERENCES

1. World Health Organisation, Recommendations for investigating contacts of persons with infectious tuberculosis in low- and middle-income countries, WHO, Geneva, Switzerland, 2012.
2. National Strategic Plan [NSP] for TB Elimination 2017-25 | Knowledge Base [Internet]. ntep. in. Available from: <https://ntep.in/node/364/CP-national-strategic-plan-nsp-tb-elimination-2017-25>.
3. S. B. Nagaraja, S. Satyanarayana, and S. Shastri, "Active tuberculosis case finding in India: need for introspection," *Public Health Action*, vol. 7, no. 4, p. 307, 2017.
4. E. L. Corbett, T. Bandason, T. Duong et al., "Comparison of two active case-finding strategies for community-based diagnosis of symptomatic smear-positive tuberculosis and control of infectious tuberculosis in Harare, Zimbabwe (DETECTB): a cluster-randomised trial," *The Lancet*, vol. 376, no. 9748, pp. 1244–1253, 2010.
5. B. M. Prasad, S. Satyanarayana, S. S. Chadha et al., "Experience of active tuberculosis case finding in nearly 5 million households in India," *Public Health Action*, vol. 6, no. 1, pp. 15–18, 2016.
6. Central TB Division, Active TB case finding-guidance document, Ministry of Health and Family Welfare, Government of India, 2017.
7. N. Lorent, K. Choun, S. Thai et al., "Community-based active tuberculosis case finding in poor urban settlements of Phnom Penh, Cambodia: a feasible and effective strategy," *PLoS One*, vol. 9, no. 3, article e92754, 2014.
8. L. Gilson, G. Walt, K. Heggenhougen et al., "National community health worker programs: how can they be strengthened?," *Journal of Public Health Policy*, vol. 10, no. 4, pp. 518–532, 1989.
9. J. N. Sekandi, D. Neuhauser, K. Smyth, and C. C. Whalen, "Active case finding of undetected tuberculosis among chronic coughers in a slum setting in Kampala, Uganda," *The International Journal of Tuberculosis and Lung Disease*, vol. 13, no. 4, pp. 508–513, 2009.
10. V. Mauch, F. Bonsu, M. Gyapong et al., "Free tuberculosis diagnosis and treatment are not enough: patient cost evidence from three continents," *The International Journal of Tuberculosis and Lung Disease*, vol. 17, no. 3, pp. 381–387, 2013.
- 11.