Bridging Missed Opportunities in the TB Care Cascade: A Public–Private Mix Approach Using Pharmacy-Based Digital Surveillance in India

R. Guleri,[1] Y. Sharma,[1] D. Parija,[2] K. Khaparde,[2] B. Vadera,[2] P. Ambule,[2] D.J. Parmar,[2] A. Chauhan,[3]
[1]Government of Himachal Pradesh, India, National TB Elimination Programme (NTEP), Shimla, India, [2]Jhpiego Corporation, Program and Operation, New Delhi, India, [3]Jhpiego Corporation, Program and Operation, Shimla, India

Option selection
Is this submission suitable for the Latin American Track?: No
Option: Option 2

Track selection
Methods: Implementation Science/Operational Research
Disease and crosscutting themes: TB
Care cascade for TB related abstracts: Public Private Mix

Title

Option 2 Abstract Text
Background: Delayed tuberculosis (TB) diagnosis persists across public and private sectors. Individuals with prolonged cough often seek care at AYUSH facilities where screening may be limited, while in the private sector, chemists, rural health practitioners (RHPs), and private AYUSH providers serve as first-contact points. Repeated cough syrup purchases act as early proxy for presumed TB, but these touchpoints are rarely linked to National TB Elimination Program (NTEP) screening pathways. Statewide cough syrup surveillance model in Himachal Pradesh identified presumed TB early and reduced diagnostic delays through digital follow-up and referral linkages.
Description: Intervention was implemented in 12 districts during June 2024–January 2025 and October 2025–March 2026. Public AYUSH facilities and private providers (chemists, RHPs, private AYUSH) were mapped, trained, and integrated into NTEP workflows. Providers recorded cough syrup purchases in TB Mukt Himachal App, triggering automated Interactive Voice Response System (IVRS) calls on days 7 and 14. Multichannel engagement (WhatsApp, SMS, missed-call callback) supported follow-up. Presumed TB cases were referred to public diagnostic facilities and tracked through Ni-kshay.
Total 8,105 providers were enrolled; 7,287 (90%) trained. Overall, 137,204 individuals purchase cough syrup recorded: 16,112 reported coughs >7 days and 121,092 ≤7 days. IVRS responses received from 21,990 individuals (18%), of whom 6,537 reported coughs. Among these, 1,630 underwent TB testing, 1,300 enrolled as presumed TB, and 476 diagnosed with TB, including 375 with cough >7 days and 101 with cough ≤7 days.
Lessons learnt: Most TB diagnoses occurred among individuals with cough >7 days, though screening shorter-duration cough identified additional cases. IVRS follow-up enabled tracking without additional field resources. Limited response rates and data quality gaps affected follow-up efficiency.
Conclusions: Public–private mix cough syrup surveillance linking public AYUSH and private first-contact providers is feasible and scalable. Integrating pharmacy-based symptom surveillance with digital follow-up can reduce diagnostic delays and strengthen TB detection.

Summary
Summary: This abstract describes a public–private mix cough syrup surveillance model in Himachal Pradesh engaging public AYUSH facilities and private first-contact providers. The intervention integrates digital reporting and IVRS-based follow-up to identify individuals with persistent cough, strengthen referral linkages, and support earlier TB screening through community-level provider engagement.

Other Fields
Country of research: India
Did you benefit from the Abstract Mentor Programme (AMP)?: No

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