

# Changes in knowledge and health seeking behaviour among persons with symptoms of TB living in urban slums, Bengaluru

The level of knowledge on TB may determine the health seeking behaviour of persons who are suffering from symptoms. If persons with symptoms are unable to recognize them as a sign of TB, and do not know where to access appropriate testing and treatment, they may remain undiagnosed. This delay in health seeking and consequent TB diagnoses raises the risk of transmission, results in continued onward transmission and development of complications, including death.

## Study objectives

Under the Tuberculosis Health Action Learning Initiative (THALI), we examined the changes in levels of knowledge on TB and health seeking behaviour over three years among adult chest symptomatic persons in the urban slum areas of Bengaluru. We also used pooled data from Bengaluru and Hyderabad to examine the effect of exposure to THALI activities, using matching methods.

## Defining Knowledge and Health seeking behaviour

We assessed health seeking behaviour in relation to two key behaviours:



Seeking treatment from a healthcare provider in the two weeks after the onset of the cough



Respondents themselves requesting a sputum test

We devised a composite index of comprehensive knowledge based on four key aspects of TB



TB spreads through air when a person with TB coughs or sneezes



Cough is the most common symptom of lung TB



Sputum test is the confirmatory test for TB



TB is fully curable

## Study Coverage

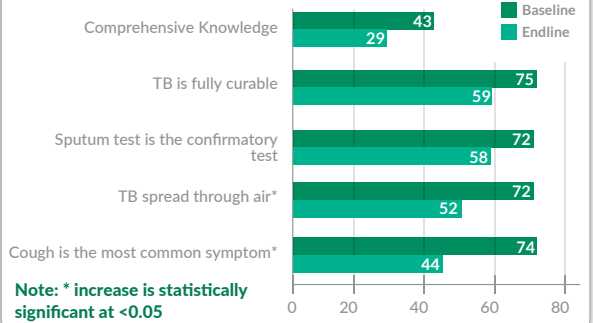
Sample coverage details of adult CS persons in the baseline and end line surveys, Bengaluru

| Status of Survey             | Baseline        |         | End-line        |         |
|------------------------------|-----------------|---------|-----------------|---------|
|                              | Number of Cases | Percent | Number of Cases | Percent |
| Chest symptomatic identified | 462             |         | 568             |         |
| Selected for Interview       | 457             | 100     | 490             | 100     |
| Completed                    | 413             | 90.4    | 458             | 93.5    |
| Refused                      | 20              | 4.4     | 15              | 3.1     |
| Not available                | 24              | 5.3     | 17              | 3.5     |

## Knowledge Aspects

For most of the socio-economic and demographic characteristics, we identified a significant increase in comprehensive knowledge. However, although there was an increase in comprehensive knowledge levels, we did not find the changes over the time period to be significant for persons aged less than 40 years, persons whose marriages were dissolved, persons who were engaged in jobs other than business and salaried jobs, and respondents whose personal monthly income was ₹5000 or more

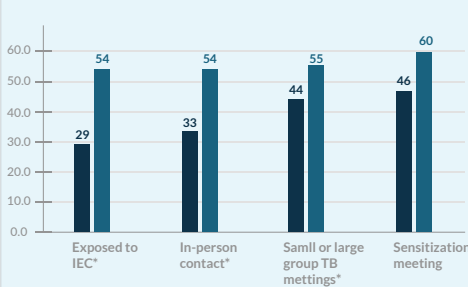
Percentage of CS persons with comprehensive knowledge and its components



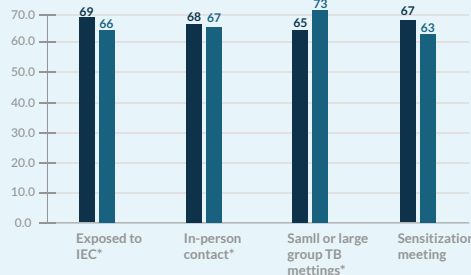
## THALI's Impact in Bengaluru and Hyderabad cities

We examined respondents' exposure to any of the IEC materials shown to them, in-person contacts, sensitization meetings and small or large meetings on TB from the pooled data. The results indicate that the group exposed to THALI community engagement activities had a significantly higher level of comprehensive knowledge than the non-exposed group.

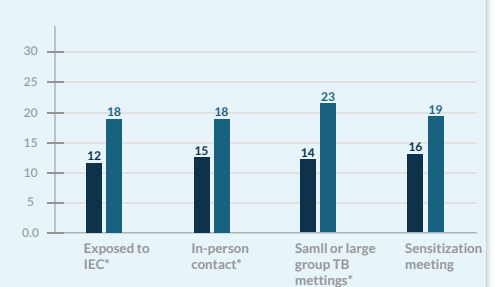
Percentage of CS persons who had comprehensive knowledge on TB according to exposure to specific community activity



Percentage of CS persons who sought treatment from a health care provider after two week of cough according to exposure to specific community activities



Percentage of CS persons who themselves requested a sputum test according to exposure to specific community activity



## Program Implications

- Even though around 70% of the CS persons did visit a formal healthcare provider after two weeks of cough, many of them did not receive recommendations for the appropriate test, a sputum test. Recommending a sputum test is usually considered a function of the healthcare provider. In the absence of this, the ability of the patient to ask for a sputum test also plays a key role in the process of early detection. Programs should aim to build awareness on symptoms and tests for TB, and empower persons to ask for it, increasing their chances of early detection.
- The study found that group approaches to diffuse the key knowledge aspects of TB may be better than individual approaches in generating demand and utilization of services related to TB.
- The study found that 72% of the CS persons were exposed to the IEC materials developed by the THALI program, but only a quarter of them could recall what information they had received through these IEC materials. Although exposure to IEC materials improved the knowledge aspects, they did not produce the same level of change in the health seeking behaviour, particularly in seeking treatment from a healthcare provider. IEC materials must be appropriate and efficiently designed, supplied, distributed and utilized.

## Health seeking behaviour

60% to 75%

Increase in respondents consulting a healthcare provider after two weeks of cough

64% to 73%

Increase in respondents with comprehensive knowledge of TB seeking care from a qualified healthcare provider after two weeks of cough

Exposure to IEC materials should have significantly increased the comprehensive knowledge by 31 percentage points and the request for sputum tests by 7 percentage points as compared to non-exposed groups.

Exposure to small or large group TB meetings should have increased comprehensive knowledge by 12 percentage points, seeking treatment from healthcare provider by 10 percentage points and requesting a sputum test by 9 percentage points, as compared to the non-exposed groups.

In-person contact had an effect only on comprehensive knowledge and should have significantly increased the comprehensive knowledge by 28 percentage points as compared to non-exposed group.

Increase in respondents who sought treatment from a healthcare provider after two weeks of cough based on the following knowledge components

62% to 73%  
Spread through air

61% to 72%  
Sputum test is confirmatory test

63% to 72%  
TB is fully curable