



# Annual Report 2021

Life  Solidarity  
Motivation   
Adherence

*TB Alert India - aims to prevent morbidity and mortality associated with TB by providing holistic care including addressing psycho-social and economic aspects which affect uptake of testing and treatment.*

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life            Solidarity  
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## Abbreviations

<b>CBNAAT</b>	Cartridge-Based Nucleic Acid Amplification Test
<b>CHIP</b>	Comprehensive Health Initiative Project
<b>CXR</b>	Chest X-Ray
<b>DIVINE</b>	Delhi Integrated Community Volunteers Initiative
<b>DMC</b>	Designated Microscopic Unit
<b>DOTS</b>	Directly Observed Treatment Short-course
<b>DR-TB</b>	Drug Resistant TB
<b>DS-TB</b>	Drug Susceptible TB
<b>ECG</b>	Electro Cardiogram
<b>HHC</b>	Household Contact
<b>JEET</b>	Joint Effort for Elimination of TB
<b>LPA</b>	Line Probe Assay
<b>MO</b>	Medical Officer
<b>NTEP</b>	National Tuberculosis Elimination Program
<b>PPSA</b>	Patient Provider Support Agency
<b>PTE</b>	Pre-Treatment Evaluation
<b>RIPEND</b>	Roping Informal Providers for Enhanced TB Diagnosis
<b>SCT</b>	Sample Collection and Transportation
<b>TB</b>	Tuberculosis
<b>TBAI</b>	TB Alert India
<b>TBHV</b>	TB Health Visitor
<b>TPT</b>	Tuberculosis Preventive Therapy
<b>TU</b>	TB Unit
<b>UDST</b>	Universal Drug Susceptibility Testing

This Annual Report is dedicated to the communities who are infected and affected by TB. TBAI strives to offer them

**Life, Hope, Solidarity, Motivation, Adherence and Cure.**

All that we have achieved this year is owing to the cooperation we have received from them, and their determination to Eliminate TB.



**TB Alert India (TBAI)** is a not-for-profit organization working with a vision to make India free from TB. It has a strong presence in Telangana, Andhra Pradesh, Delhi and Haryana, headquartered in Hyderabad.

The projects at TBAI focus on increasing TB knowledge, health seeking behavior, new TB case detection and successful treatment outcomes. Community Engagement and Private Provider Engagement including both formal and informal providers are the key strategies of the projects. TBAI works in close coordination with NTEP officials of state, district and TU/DMC level staff and joins hands with other allied stakeholders and works closely with them for TB prevention, care, support services, and leverages and mobilises community support to sustain the impact gained through projects activities.

All projects of TBAI aim at supplementing the National TB Elimination Program (NTEP), mobilizing, and linking local communities and service providers both formal and informal in the fight against TB.

During the year 2021, TBAI ventured into new states such as Punjab and West Bengal through JEET (Joint Effort for Elimination of TB) project operations and Gujarat and Rajasthan with PTE (Pre-Treatment Evaluation) and SCT (Sample Collection and Transportation) projects.



## JEET 1.0

The **Joint Effort for Elimination of Tuberculosis (JEET)** is a two-project (1.0 & 2.0) that aims to extend quality TB care including training for private providers and detection, notification and treatment initiation to patients seeking care in the private sector. The project in its second phase also undertakes screening of household contacts of pulmonary TB patients and treats them if found positive. This is done by developing effective partnerships with private health services. The project sets up effective and sustainable structures called Patient Provider Support Agency (PPSA) which offers support to TB patients throughout the process. The project has been implemented in Andhra Pradesh, Telangana, Punjab, West Bengal and Delhi and Haryana. The targeted communities are NTEP laboratories and TU staff, NTEP officials at district and State, and chest clinic staff.

 **3320** providers were trained and engaged in the project in the form of hub and spoke model

 **78466** new TB patients diagnosed and notified under private sector notifications.

 **91%** of the patients reported successful treatment outcomes

### PPSA

 **1953** private providers trained and engaged in the project.

 **66445** new TB cases were notified through Nikshay.

 **80%** of the patients were reported successful treatment outcome.

**Sumaiya** (13) is studying in Class 9 and lives in Babanagar, Barkas TU, Hyderabad. She was diagnosed with brain TB in 2021 and she was put on treatment. The medicines caused severe side effects such as continuous vomiting that weakened her and caused her to lose her temper very often.

She would feel discouraged very often but the BtB team counselled her and her parents so that she could manage her side effects and her parents could support her better. Sumaiya, despite challenges did not miss taking her medication and completed her full course of treatment and at the end of six months, was cured and had also gained weight and strength.

She is now stable and feels motivated to support the community and help them in the manner she was helped. She also volunteered to videograph her own story so she could share her story with those who needed encouragement. She has also come forward to educate school children on TB. Sumaiya is a good communicator and has completed a TB Champion online course and received a certificate. She is now a proud TB Champion.

## JEET 2.0

### Telangana, Andhra Pradesh & Punjab

 **31931/50414** household contacts consented to be screened for TB

 **75264/81343** household contacts screened for TB symptoms

 **40814** eligible household contacts initiated on TPT based on evaluation by MO

### Delhi & Haryana

#### Delhi – Treat only model

 **11779/20925** consented to be screened for TB

 **33263/34667** household contacts screened for TB symptoms

 **12736** HHCs initiated on TPT based on evaluation by MO



**Harish** Singh (45) lives in Burari, New Delhi along with four other members of his family and their monthly income is about INR 17000/pm. When Harish began suffering from cough, chest pain and fever, and began spitting up blood, his neighbour suggested he get checked for TB and told him about the nearby DOTS centre. Harish visited the centre, got tested and was diagnosed with TB. The centre provided him all facilities such as DOTS medication, follow-up, counselling and tests. This was done under the DIVINE project. Harish also cooperated and took his treatment regularly. He soon became well and all symptoms receded. Tests have confirmed that he is now TB negative. He is happy that that he availed treatment on time and is happy he approached the DIVINE project staff who took care of all his needs.



**Gurram** Narasayamma (60), lives with her husband, two daughters and four grandchildren in Vishakhapatnam, Andhra Pradesh. Her older daughter is a person living with HIV (PLHIV) and lost her husband to AIDS. Her younger daughter is separated from her husband. Their household income of INR 30000/pm comes from her husband's pension and the family is currently suffering a financial crisis and is struggling.

To add to their troubles, Narasayamma began to have severe symptoms of TB along with haemoptysis and she visited a private health facility where tests revealed she was suffering from Index TB. She was then referred to a public health facility for treatment owing to her inability to pay for treatment at the private facility. She was also registered with Nikshay. The Project Coordinator of the LTBI project, visited the patient's home to complete a contract screening of the family. After the screening, the coordinator referred the household contacts to a medical facility in order to initiate them on TB Preventive Therapy (TPT) to protect them from infection. The PLHIV was referred to an ART centre to avail TPT.

Narasayamma is not receiving intensive adherence follow-up visits from the project staff as well as other support. Three of the household contacts developed adverse drug reactions (ADRs) and were referred to a health facility for treatment.

The unique feature of Narasayamma's story is that she and her entire family received correct and accurate information, treatment and follow-up owing to their having access to support from the project. They are all on treatment as prevention or cure and are well on the way to normalcy. The family is now confident as they know they have overcome what could have been a serious problem. Narasayamma says, "I have recovered well and am continuing my treatment. My family is also safe and healthy. My family and I are grateful. We now consider our family to be TB free and thank JEET project staff for giving our family hope that TB is curable."



**P Sangeetha** (17) is an inter second year student and lives in Jangampet, Falaknana, Hyderabad with her parents and younger sister. Her father drives an auto, while her mother works in a grocery store. The family income is around INR 25000/pm. While in her first year of college, Sangeetha suffered from prolonged cough and chest pain. She shared her symptoms with her parents who consulted neighbourhood doctors for treatment but Sangeetha did not get cured. So, they took her to Owaisi Hospital. Suspecting TB, the doctor advised diagnostic tests. Sangeetha was linked to a Patient Provider Support Agency (PPSA) Hub agent who educated her about the testing procedure and collected sputum from her, as well as enrolled her with Nikshay. The Hub then transported the sample for CBNAAT testing. She tested positive for Pulmonary TB with no Rif resistance (DS-TB), and was advised to meet the doctor for treatment. This process too was coordinated by the Hub, and she was further linked to a treatment coordinator, who counselled her about care, treatment adherence and the importance of nutrition. The coordinator also allayed her fears that she would not be able to attend her annual exams while she was in poor health.

Sangeetha, with support from the Hub and her coordinator has tolerated her medication well and has 75 per cent adherence. Her weight has increased by 2 kgs and she and her family are happy, particularly because she was able to attend her examinations confidently. She says, "Constant support, free medicines and motivation have helped me to get cured and I thank the entire team for being so supportive."

**Santhosh**, educated up to Class X is an AC mechanic and lives at Boiguda, Secunderabad. Having contracted extra pulmonary TB, he took treatment and was cured. Santhosh had shown promise during CSG meetings and the BtB project staff had identified him as a potential TB Champion owing to his interest and bold nature which ensured he helped other patients. He was enrolled into a TB Champion's training programme and he again stated his intention to be an active part of TB elimination efforts. He is now an active member of the CSGM and motivates patients to adhere to treatment and uses his own case as an example to convince them. His enthusiasm and dedication have won him a place as a health worker and he has begun supporting BtB and NTEP in the role of a TB Champion. He helps patients with documentation and facilitates easy treatment for them. Santosh is a powerful voice at various platforms and motivates others to boldly negotiate the TB journey and win over the disease.

## DIVINE (Delhi Integrated Community Volunteers Initiative)

The 'Delhi Integrated Community Volunteers Initiative' (DIVINE) project focuses on involving communities to generate awareness on TB. Communities are engaged to motivate patients to seek testing and treatment, as well as adherence.

### Presumptive TB Cases (PTCs) tested

Symptomatic	Micro biologically confirmed	Clinically Confirmed
NTEP chest clinic OPD, Other government hospitals OPD		
590	58	45
Others: Project IEC, Chemists, Community volunteer, Cured patients, Private healthcare providers, Private labs, Local labs		
1353	184	73
Treatment success rate		
83 per cent		



**Swapna**, a health worker who was serving the needy people in a private hospital, was enjoying her work of serving people in distress. During the course of her work, one day, she noticed severe weight loss in herself and began coughing and had a fever. Home medication did not help so she sought medical help and tested positive for TB. Detailed investigation showed that her lungs were also affected. Her health condition worried her and she had concerns for her future.

The local BtB coordinator and TBHV offered support and counselling and used different methods such as guessing techniques to encourage positive thinking in her. This reinforced her courage and strength and her health improved in time. She also completed her treatment successfully. Swapna is now well and living happily. Her journey from illness to cure has been a successful one. She is grateful for the support she received, in time!

## RIPEND (Roping Informal Private Providers for Enhanced TB Diagnosis)

RIPEND, which was initiated in 2018, is a unique field intervention for TB management and care that addresses an important segment of the healthcare community – informal private providers (IPP) or Rural Health Care Providers (RHCPs). They are vital for early identification and care of TB patients as they have a very good rapport with people suffering from TB and often the first contact point while seeking care.

**Key stakeholders engaged** NTEP staff at DMCs/TUs, Private CXR and GeneXpert facilities, Informal Providers associations and NTEP officials and staff at DMCs and Tus.

**Usha** (30) is not educated and is a homemaker and lives with her family in Burari, New Delhi. Their monthly income is about INR 15000/pm. For two months before seeking appropriate medical help, Usha had been suffering from cough, fever and chest pain. The DIVINE project staff learnt about this and the Project TB Health Visitor (TBHV) visited her home and recommended TB diagnostic tests to her. They also facilitated her visit to the Project DOTS Centre and arranged for the tests, which proved she was TB positive. This was followed by treatment, adherence counselling and follow-ups. All these efforts yielded results and Usha is now free of symptoms as well as free of TB. She is feeling well and happy. She says, "I am happy I accepted the advice of our local TB Champion Geetanjali who told me about TB and urged me to seek treatment urgently. My suffering has stopped and I feel healthy now. I thank her and the DIVINE project staff. I want to volunteer my services and ensure others like me too are helped."



### Cumulative progress July 2018 to Dec 2021

**1635** informal providers trained and engaged in the project

More than **60%** of providers have used the mobile application, an IT based technology for enrollment of individuals for TB testing.

**37775** individuals with TB like symptoms referred and of them **36976** tested for TB at NTEP facilities

**4543 B+** and **6141** All Forms TB patients diagnosed, notified under public sector through Nikshay. (133% of targets set) a web-based portal and initiated on treatment as per NTEP guidelines.



**Nagasravani** (25) is a homemaker and lives in Kukatpally, Medchal-Malkajiri District with her husband and a 3-year-old son. Her husband is an employee in a private company and the family income is around INR 2000/pm. Nagasravani decided to consult a doctor when she had a cough and fever, and while examining her, the doctor realised that she was also pregnant. Suspecting TB, he prescribed diagnostic tests and also referred her to a PPSA Hub. She met the Hub agent in an anxious state, having learnt that the doctor was suspecting TB. However, the agent counselled her about the process of TB testing, care and treatment as well as the services available from NTEP. She was reassured that TB was curable with treatment adherence and a proper diet. Her sputum sample turned in a TB positive result and Nagasravani was diagnosed with Pulmonary TB. The doctor, initiating her on treatment, also told her about the importance of taking regular treatment and further referred her back to the Hub agent.

The Hub agent registered her with Nikshay along with DBT and assigned a treatment coordinator to her with her consent. She was put on treatment and given complete information on her recovery process and precautions.

Nagasravani was depressed on knowing she had TB, but counselling, and linkages to available services encouraged her to get tested and continue with care and treatment. She says, "I am happy I am progressing towards good health. I owe this to the education and counselling given to me by the Hub agent and treatment coordinator. Thanks to them, I will soon be well."



**Mohammed** Basheer (45) is an auto driver residing in MH Nagar in Warangal. In Dec 2020, when Breaking the Barriers (BtB) staff were conducting a mapping exercise in vulnerable sites of Warangal, they learnt that Basheer was a key opinion leader and a member of CITU auto union. The team also learnt that the union supported community level TB awareness activities.

They approached Basheer, requested him to engage in TB elimination activities in the Deshajpet slums and gave him an orientation on TB, its symptoms and all other relevant information. This interested Basheer and he became actively involved in TB awareness programmes. He also conducted TB awareness meetings with local KOLs, CS Moturi SLF and Sri Anjaneya SLF (Slum Level Federation).

Since then, he has facilitated meetings, referred at least five symptomatic individuals for testing and attended training sessions organised by the project staff. When they explained the Behaviour Change Solution "Health Auto", to him, he immediately saw value and began working with them. He has transported 23 symptomatic individuals to NTEP facilities. He also made them aware about TB, including symptoms and the importance of early testing. More importantly, he also convinced other auto drivers to support the initiative, thus creating a ripple effect. He says "I feel connected to the community as they approach me to get information and discuss their issues and doubts while travelling to the facility. I feel I have done something useful. It also feels very nice that they regard me as a health guide and I am able to convince them for testing."

**Srilatha** (25) lives in an orphanage and is pursuing a course in nursing. Diagnosed with abdominal TB, she was initiated on treatment at DTC Hyderabad. However, the medicines caused severe side effects, and she also lost 10 kgs in a month, which caused her to worry about her health and future. The BtB project staff got to know about this and called her to enquire whether she needed help. They found her distressed and she has given up treatment too thinking she was dying anyhow. The BtB project staff and NTEP staff member then visited her and gave her comprehensive information about TB, shared survivor stories with her and also urged her to attend CSGM meetings. When she connected with other patients and shared her story, she understood that others too had faced and overcome the same problems. This gave her hope and courage and she restarted her treatment. She was also able to study and do well in her studies. She says, "The support I got is invaluable and I am sure this is what has helped me to get better. After I get cured completely, I too want to become a TB Champion and help others."



## In brief

### In the reporting year TBAI:

- ⌘ Augmented NTEP's efforts to increase CBNAAT testing in selected districts of the states of Delhi, Gujarat and Rajasthan. 6500 CBNAAT cartridges were provided cumulatively (2000 to Delhi, 2000 to Gujarat and 2500 to Rajasthan). This helped diagnose 2732 patients with TB, of which 229 were RIF Resistant.
- ⌘ Provided support for pre-treatment evaluation (PTE) of DR-TB patients in Delhi. This support helped around 440 patients to be evaluated before being treated.
- ⌘ Facilitated Care & Support Group meetings for 955 TB patients
- ⌘ Ensured that Care & Support Group meetings were attended by 1572 patients
- ⌘ Identified and engaged 617 TB Champions for TB elimination

## ECG Project

TBAI took up installation of ECG equipment at selected government facilities in coordination with the Government in order to closely monitor the cardiac function of MDR-TB patients. Training was provided to NTEP lab technicians on the usage of the machines.

**15230** tests done in Telangana

**6141** tests done in Andhra Pradesh



## CHIP Project

The CHIP (Comprehensive Health Initiative Project) seeks to address comprehensive health aspects of TB, COVID-19, DM and Hypertension patients as well as women and adolescent girls in 10 villages of Vishakapatnam. Several community awareness activities such as handwash demo sessions, focus group discussions on the above diseases were conducted. Symptomatic individuals were identified for treatment and care and support services at health facilities were provided. The activities were conducted among women self-help groups, school teachers and government front line health workers.

**Home visits** to educate family members on health aspects

**959** group sessions

**39** hand wash demo sessions

**30** wall paintings illustrating the importance of health seeking behavior

**37** women self-help groups engaged in project activities

## Establishing Linkages & Strengthening DRTB Services in Telangana State

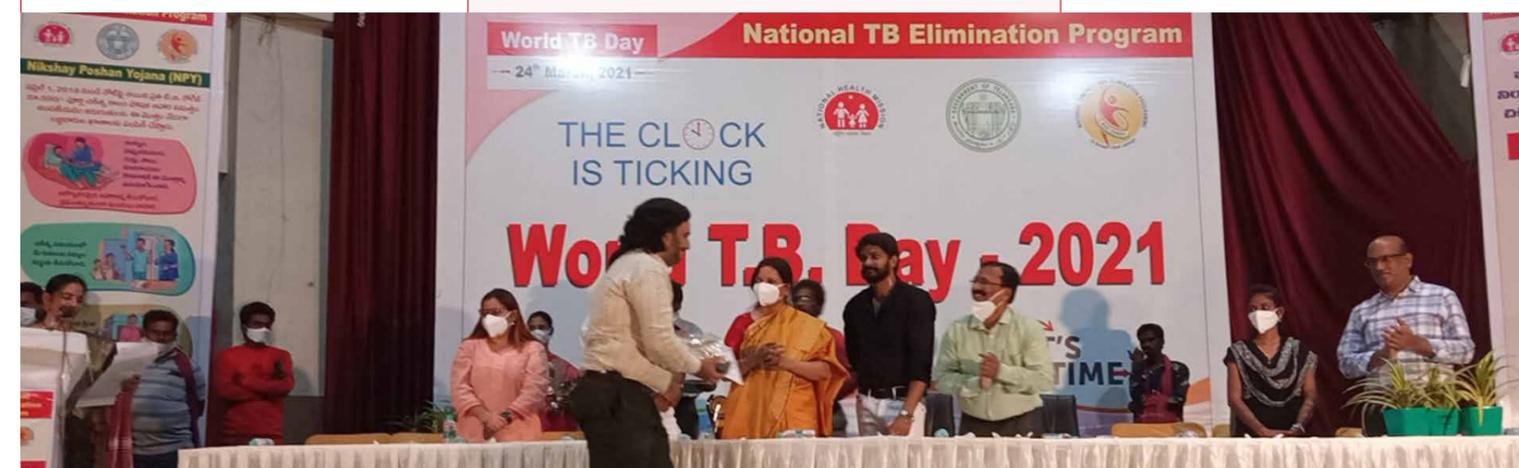
The project proposes to establish unique approaches for scaling up access to UDST coverage to all presumptive and MDR-TB patients and optimising treatment services. It is being implemented in selected districts of Telangana state among NTEP staff at DMCs, at NAAT, DR-TB centers and IRL facilities

**4442** samples transported to CBNAAT facilities from respective DMCs

**689** DS-TB and 19 RR positives detected

**4442** samples tested

**3120** samples transported for first line LPA, **96** for second line LPA and **774** for Liquid Culture to IRL at Hyderabad





**Sukhvir** Singh (38), is associated with the JEET 2.0 programme since December 2021. Having worked with JEET for more than two years, he has acquired knowledge and skills, and the passion and empathy that is required to engage in the fight to end TB. After helping to address active tuberculosis in JEET's first phase, he is now working for the management of latent tuberculosis infection in Ludhiana District of Punjab.

Sukhvir has demonstrated very successfully that even with limited or no resources, one can make a difference if one is determined. He says, "I was taught during state-level training that an ideal bag of LTBI-C must have a dairy, pen, weighing machine, IEC material, etc. With this knowledge, I decided to have a bag for myself and also invested in a weighing machine." Being equipped with a weighing machine has a rationale. The programme aims at preventing the spread of disease. During evaluation, the medical practitioner requires to know the actual weight of the patient in order to prescribe the right dosage of medicine as per the weight.

Sukhvir, who has been assigned a remote location, mostly rural areas of Ludhiana district often found it difficult to ascertain weight as he did not have access to a weighing scale and found it time-consuming to borrow one from the local anganwadi or health facility, and that on availability. Therefore, his decision to buy a weighing machine.

Fieldwork is his forte and so is perseverance to mobilise resources for the intervention. He now carries his backpack while on the field and has equipped it with the required drugs etc. He says "People feel cared for and this helps me to convince people to take medicine. This little effort has worked wonders for me, and my confidence has grown too."

The project benefits greatly from people like Sukhvir as they are committed, vigilant and responsible towards their work. Sukhvir acknowledges that improper nutrition leads to poor health. He often comes across young adolescent girls and children among the households visited who are underweight and wishes to identify them and link them with the ICDS department so that he can also contribute towards ending malnutrition and undernourishment problems from the community. He now can be tagged as "Man with a weighing machine on a mission" as his aim is even bigger.

**Chittala** Laxmaiah (48), lives in a small rented house with his wife, two adolescent daughters and aged father in Karimnagar District. Laxmaiah and his wife are both daily wage labourers. When Laxmaiah began suffering from cough and fever, he did not seek medical help for over a month, probably owing to lack of knowledge or fear of losing wages. He would just go to a chemist and buy medicines the chemist recommended. The medicines did not help and he continued to suffer. His symptoms also got worse and this worried him. He then decided to visit an informal healthcare provider who screened him and suspected TB. He referred him to the nearby NTEP testing facility and informed the RIPEND project staff, who took prompt action, visited Laxmaiah's home and gave them complete information and knowledge. He was helped to collect sputum and get tested. Treatment was immediately initiated when he was diagnosed TB positive. He was simultaneously counselled on treatment adherence and his household members were screened for symptoms and three of them were found to be having symptoms. They were referred for diagnostic tests, found TB positive and initiated on treatment.

Laxmaiah says, "The disease has caused severe damage to our economic condition. My younger daughter had become a child labourer to save us from going hungry. I am grateful to the project staff who provided us with foodgrains and eggs for three months with support from a local donor and ensured we got our entitlement of INR 1000 each under the Nikshay Poshan Yojana. If we did not have all this help, it would have been very difficult."

All the three family members are now taking TB medicine regularly under the guidance of NTEP staff and RIPEND project staff coordination. The follow-up and timely contact screening helped them understand the disease and the importance of treatment completion.

**Bandari** Rajamma (38) lives in Kasimpally, Bhupalapally District, Telangana State and works as an agriculture labourer. She supports her husband to earn a livelihood. When Rajamma developed a severe cough, fever and loss of appetite, she recalled that at a campaign on Active Case Finding (ACF) in her locality they had been told these were symptoms of TB. Worried, she visited a project enrolled informal provider.

The provider, suspecting TB referred her to a nearby NTEP testing facility for TB testing. Simultaneously the RIPEND project staff was alerted and they visited her home, counselled her and her family and arranged to collect her sputum for testing. She was diagnosed positive for TB and initiated on treatment. Her family was screened and counselled too. However, Rajamma began missing her doses as soon as she felt better. The tele-counsellor discovered this and reiterated to her the importance of completing the entire treatment even if she felt better. She realised her mistake and was determined to avoid further problems and completed her treatment. She tested negative at a follow-up test. She says, "I am happy I listened to the counsellor's advice because by stopping my treatment I could have been in more trouble. Everybody needs this kind of support."



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