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Ministry of Health & Family Welfare
Government of India

NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME
TB MUKT BHARAT
TB Harega Desh Jeetega

CREATING SYNERGIES TO ENSURE QUALITY TB CARE

COMPENDIUM OF BEST PRACTICES TO ENGAGE THE PRIVATE SECTOR PROVIDERS AND PATIENTS IN INDIA

IQVIA

Creating synergies to ensure quality TB care: Compendium of best practices to engage the private sector providers and patients in India.

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FOREWORD

Message from DDG (TB), Central TB Division

One of the key priorities in providing quality TB care services is to ensure that all patients have access to TB diagnostic and treatment services regardless of the sector they go to. Private sector engagement is critical in achieving this objective. More so, with the National TB Prevalence Survey (2019-22) indicating that 49% patients in our country approach the private sector for their presumptive TB symptoms.

NTEP has made significant progress in engaging with the private sector and improving the quality of TB care services in the private sector. The program has been focusing on creating context-based modalities of engaging with private sector providers.

The NTEP has operationalized the Patient Provider Support Agency model across several districts in India. The PPSA model is a collaborative approach which involves partnering with private sector providers to ensure the delivery of standardized TB care services. It has been successful in improving TB case detection and treatment outcomes in many states. The NTEP is committed to expand collaboration with the private sector and scaling up the PPSA model in other parts of the country. This model has the potential to significantly improve the quality of TB care services in the private sector and increase the number of TB patients who receive quality care services.

I am pleased to present the compendium "Creating Synergies to Ensure Quality TB Care" which highlights best practices of engaging with private providers under NTEP and am thankful to all the stakeholders who have contributed to the progress made by the NTEP in private sector engagement. I am confident that together, we will continue to make significant strides towards a TB-free India.

TB Harega, Desh Jeetega!

FOREWORD

Message from Prof. A. Venkat Raman

The release of this report presents a unique opportunity for us to celebrate how far we have come in creating greater and more meaningful partnerships with the private sector for TB elimination. The National TB Elimination Program (NTEP) has always made it a priority to collaborate with the private sector, and various Community-Based Organizations (CBOs). State NTEPs have been working closely to identify and collectively work with private sector providers. Efforts such as these not only present a strong model for private partnerships to support health systems strengthening at large in India, but also provides valuable insights for the international community on how India is leading the collaborations with diverse stakeholders for the common goal of TB elimination.

States across the country have mobilized domestic funding for private sector engagement. State NTEPs have created unique models that facilitate working across diverse providers (chemists, labs, doctors, informal providers, and AYUSH doctors), , to not only improve TB notifications, but also to ensure affordable and standardised diagnosis and treatment is available for all patients. This report analyses approaches deployed across select states to cater to the care cascade. Best practice in the form of case studies have been prepared based on close consultation with implementing agencies, with the aim to support cross-sharing of experiences, streamlining of efforts, and showcasing the best of what has been learned.

It is hoped that with this compendium, state NTEPs and implementing agencies are better equipped to streamline and enhance their engagements with the private sector. The compendium aims to not be prescriptive in nature, rather, open-ended in providing context-specific solutions across each stage of operations.

On behalf of the NTWG, I am grateful to the Central TB Division for facilitating the compilation of such a compendium, and hope to see its widescale use across the country as we come closer to eliminating TB, once and for all.

Prof. A. Venkat Raman
Chair
National Technical Working Group on Engaging the Private Sector

CONTENTS

Acknowledgments III

List of Contributors IV

Abbreviations and Acronyms V

1. Introduction 1

2. Approach 4

3. How to Use this Document 5

4. A CLOSER LOOK AT PRIVATE SECTOR ENGAGEMENT MODELS

4.1. World Health Partner, Bihar 7

4.2. Doctors For You, Mumbai 9

4.3. ALERT India, Maharashtra 11

4.4. William J. Clinton Foundation with Tata 1 mg, Faridabad 13

4.5. Patient Provider Incentive Scheme (PPIS), Rajasthan 15

THEME A

5. PRIVATE PROVIDER MAPPING AND ENGAGEMENT 17

5.1. CASE STUDY I 18

Engaging chemists, testing labs, and AYUSH practitioners for increased case notification and enlist support toward key programmatic interventions

5.2. CASE STUDY II 21

Building trust and providing incentives for furthering programme objectives

THEME B

6. SCREENING AND ACCESS TO DIAGNOSTICS 25

6.1. CASE STUDY I 27

Using vouchers for free chest X-rays in Maharashtra

6.2. CASE STUDY II 32

Working with high-load paediatric OPDs for increased CXR screening and sample collection

6.3. CASE STUDY III 35

Bringing innovative approaches to expedite drug-susceptibility testing

6.4. CASE STUDY IV 39

Providing support for co-morbidity screening

THEME C

7. ACCESS TO TREATMENT 42

7.1. CASE STUDY I 43

Employing a resource-light model for home delivery of drugs

7.2. CASE STUDY II 47

Engaging pharmacies for greater government FDC uptake

THEME D

8. PATIENT ADHERENCE AND SOCIAL SUPPORT 51

8.1. CASE STUDY I 52

Counselling and treatment adherence monitoring through call centres

8.2. CASE STUDY II 55

Providing nutritional and social support to patients

THEME E

9. PROJECT MANAGEMENT 59

9.1. CASE STUDY I 60

Using app-based data validation technology for PPSA performance monitoring

9.2. CASE STUDY II 63

Developing a competency framework and employing technology to track programme goals

THEME F

10. STATE-LED PRIVATE PROVIDER ENGAGEMENT 67

10.1. CASE STUDY I 67

State incentivizing private providers across the TB care cascade: the Patient Provider Incentive Scheme (PPIS)

11. Conclusion 73

12. Bibliography 77

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The National Strategic Plan for TB Elimination (2017-25) outlines private sector engagement as a critical strategy to bring all patients, irrespective of where they seek care, into the TB care cascade. This compendium of innovative and best practices of privatesector engagement efforts has been prepared under the guidance of the Central TB Division, Ministry of Health & Family Welfare. We are grateful to Dr. RajendraP Joshi, Deputy Director General (TB), Dr. Alok Mathur, Additional Deputy Director General (TB), Dr. Sanjay K. Mattoo, Additional Deputy Director General (TB), and Dr. Raghuram Rao, Assistant Director General (TB) for their guidance and invaluable inputs to support this endeavour.

The National Technical Support Unit for Partnerships (established through the World Bank), has led the compendium's strategic vision, given technical inputs, and led the conversations with the agencies for insights which are the backbone of this document. As a part of the NTSU activities, this documentation effort has been led by Dr. Neeraj Raizada, Team Lead, NTSU and his team, especially Dr. Sandhya Gupta, and Mr. Shashank Malviya, with extensive support from Mr. Raman Sankar, Ms. Eman Rahman, and Ms. Hubiba Mir from Global Health Strategies (supported by the Bill & Melinda Gates Foundation), particularly on the identification of key themes, data analysis, report writing, and design. This compendium would not have been possible without the commendable work of the PPSAs, organizations, and state NTEPs. Their work has formed the base of this document and we are grateful to them for their insights and for providing quality data for this documentation endeavour. They have set a national precedent on private sector engagement for TB elimination.

LIST OF CONTRIBUTORS

Central TB Division

- Dr. Rajendra P Joshi, Deputy Director General (TB), MoHFW
- Dr. Alok Mathur, Additional Deputy Director General (TB), MoHFW
- Dr. Sanjay K Mattoo, Additional Deputy Director General (TB), MoHFW
- Dr. Raghuram Rao, Assistant Director General (TB), MoHFW
- Dr. Nishant Kumar, Joint Director (Public Health), MoHFW
- Dr. Ravinder Kumar, Specialist (TB), MoHFW

State NTEP

- Dr. Vinod Kumar Garg, STO Rajasthan

Patient Provider Support Agencies and Partners

- Dr. Sangita Pandey, National Lead, HLFPPT
- Dr. Sathish Kumar, Country Director, SAATHII
- Dr. Shamim Mannan, Project Director, William J Clinton Foundation
- Dr. Nita Jha, Director, Sustainable Interventions, WHP
- Ms. Prabha Mahesh, Director, Health Projects, ALERT India
- Dr. Vaishali Venu, Director, Health and Nutrition, Doctors for You
- Ms. Anamika Lahiri, Research and Documentation Manager, SAATHII
- Mr. Akbar Ali Sayyad, Director, Maharashtra Janvikas Kendra
- Mr. Suresh Kamle, Chief Operating Officer, Bavya Health Services

National Technical Support Unit for Partnership, IQVIA

- Dr. Neeraj Raizada, NTSU-Team Lead, IQVIA
- Dr. Sandhya Gupta, NTSU-Public health Expert, IQVIA
- CA Vijay Gupta, NTSU- Finance Expert, IQVIA
- Mr. Shashank Malviya, NTSU- Public Private Partnership Expert, IQVIA
- Mr. Arun Singh Rana, NTSU- Monitoring & Evaluation Expert, IQVIA
- Mr. Devashish Sarkar, NTSU- DBT Expert, IQVIA
- Dr. Shanoo Mishra, NTSU-Multi-Sectoral Engagement Expert, IQVIA
- Mr. Ritesh Tyagi, NTSU- ICT Expert, IQVIA
- Mr. Amit Srivastava, Contract Management Expert (former), NTSU

Global Health Strategies

- Mr. Raman Sankar, Senior Director, GHS
- Ms. Eman Rahman, Senior Manager, GHS
- Ms. Hubiba Mir, Senior Associate, GHS

World Health Organization

- Dr. Swati Iyer, National Consultant-PPM, WHO

ABBREVIATIONS & ACRONYMS

ADR	Adverse Drug Reaction
AIDS	Acquired immunodeficiency syndrome
ALERT India	Association for Leprosy, Education and Treatment India
ART	Antiretroviral Therapy
CaP TB	Catalysing Paediatric Tuberculosis Innovations
CBNAAT	Cartridge Based Nucleic Acid Amplification Test
CBO	Community Based Organisation
CXR	Chest X-ray
DBT	Direct Benefit Transfer
DFY	Doctors For You
DM	Diabetes Mellitus
DTO	District TB Officer
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
FDC	Fixed Dose Combination
FL LPA	First Line-Line Probe Assay
HIV	Human Immunodeficiency Virus
HLFPPT	Hindustan Latex Family Planning Promotion Trust
IAP	Indian Academy of Paediatrics

ICT	Information and Communication Technology
IMA	Indian Medical Association
JEET	Joint Effort for Elimination of TB
MIS	Management Information System
MJK	Maharashtra Janavikas Kendra
NAAT	Nucleic Acid Amplification Test
NACO	National AIDS Control Organisation
NPY	*Ni-kshay Poshan Yojana*
NTEP	National Tuberculosis Elimination Programme
OOPE	Out-of-Pocket Expenditure
PPIA	Public Private Interface Agency
PPSA	Patient Provider Support Agency
SAATHII	Solidarity and Action Against The HIV Infection in India
SL LPA	Second Line LPA
TB	Tuberculosis
UDST	Universal Drug Susceptibility Testing
WHP	World Health Partners

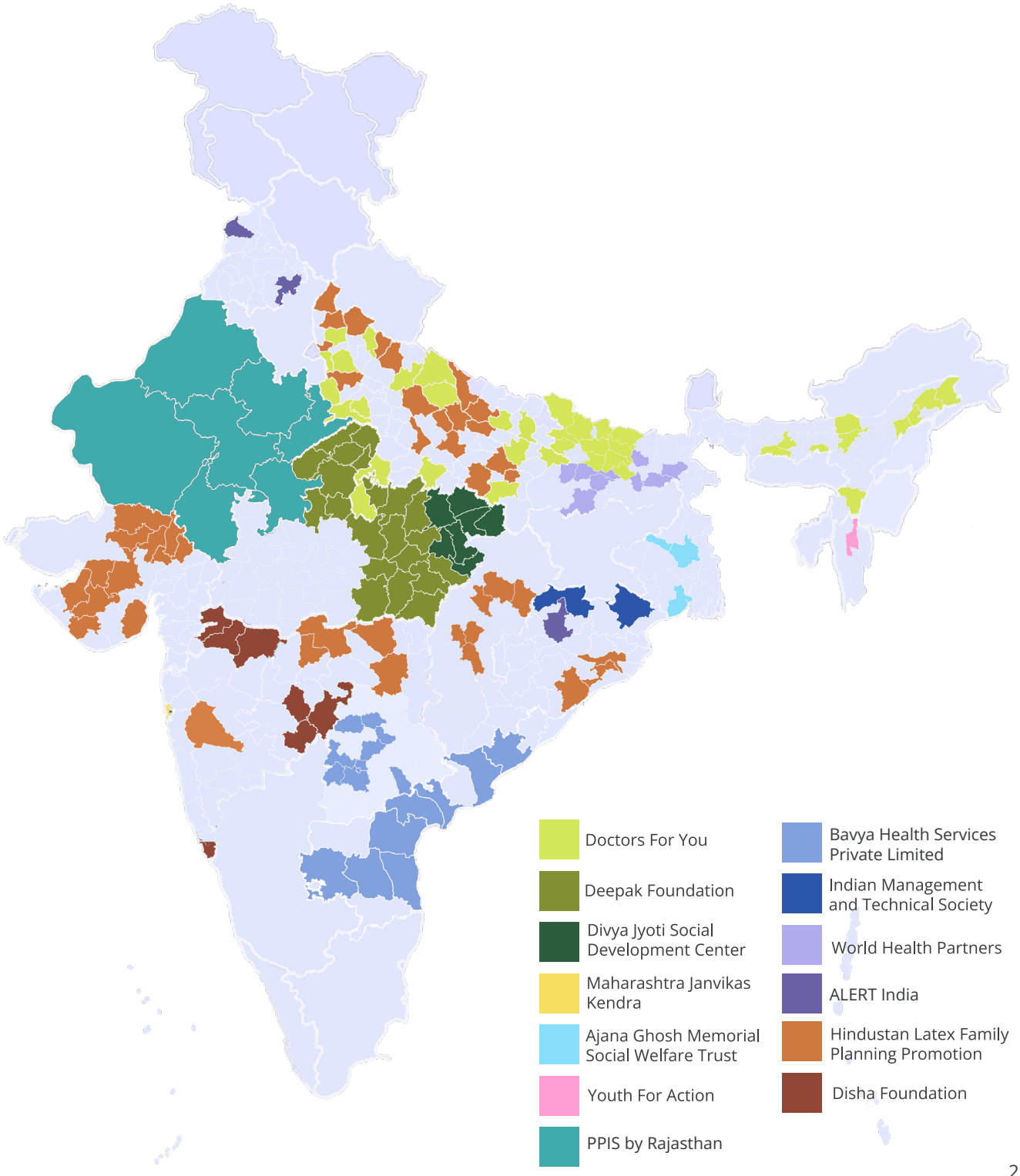
INTRODUCTION

In the last few years, the Government of India has transformed its TB elimination response by introducing comprehensive patient-centric strategies under the National Strategic Plan (NSP) for TB Elimination (2017-25). One of the critical components of the plan pertains to engagement with the private health care sector (including professional organizations such as the Indian Medical Association, Indian Academy of Paediatrics, chemists' associations; informal and formal providers; diagnostic laboratories; and private chemists) to ensure patients have access to quality and affordable TB care, irrespective of where they may seek it.

Over the years, the National TB Elimination Programme has introduced several models of private sector engagement that led to a significant increase in TB notifications and outcomes. The Public Private Interface Agency (PPIA) model funded by the Bill & Melinda Gates Foundation was piloted in three sites (Mumbai, Patna, and Mehsana) between 2014 and 2017. In 2019, the PPIA model transitioned to domestic funding to support private sector engagement efforts through the Patient Provider Support Agency (PPSA) model. PPSA is an output-based contract between the NTEP and an agency, mostly a Community Based Organisation (CBO), that is aimed at providing standardised quality care to patients in the private sector. This model is currently being implemented in more than 200 districts in high burden states across the country. While the model is significantly contributing to the TB elimination goal, critical challenges related to the contracting of and payment to intermediary agencies, and operationalization of key services such as free diagnosis and dispensation of free treatment (government FDCs) continue to hamper efforts to provide holistic and timely care to patients. To address these and other key challenges, it was important to explore innovative solutions being implemented by states and intermediary organizations across the country.

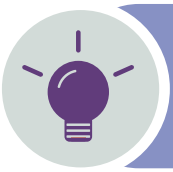
The diversity in implementation of the PPSA model prompted the development of this brief compendium, which captures innovative solutions to effectively implement private sector engagement programmes in different geographies. The compendium will serve as a ready-reckoner or tool that assists programme managers and implementing partners to understand the learnings of other successful interventions that have addressed contextual and operational challenges and adapt these solutions in their respective geographies.

PATIENT PROVIDER ENGAGEMENT MODEL COVERAGE



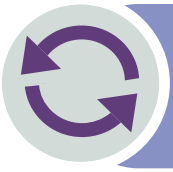
OBJECTIVES OF THIS COMPENDIUM:

Synthesize learnings from private sector engagement programmes in a standardized and easy-to-understand format



Share insights into the innovative solutions being applied across states to address persisting challenges faced in the application of the PPSA programmes

Build capacity across different contexts and geographies to troubleshoot and overcome persisting challenges to effective private sector engagement and service delivery. Promote development of innovative solutions to address contextual challenges faced by the agencies



Enhance cross-sharing of practices by state and district programme managers, and intermediary agencies to learn from the challenge-redressal measures in other contexts

APPROACH

The National Conference on Patient Provider Support Agencies (PPSAs) was organized on August 1 and 2, 2022, by the National Technical Support Unit (established through support from the World Bank). The conference brought together implementation partners and PPSAs, state government representatives, leadership from the Central TB Division, and technical experts to discuss the progress made, gather policy and programmatic inputs from stakeholders, and enhance cross-sharing of innovative solutions between states. The conference was an opportunity for the agencies to present their implementation models and showcase innovations to provide quality TB care to patients and solve implementation challenges. The inspiring work presented by the PPSAs led to the development of this compendium.

To prepare this compendium of best practices, PPSAs were consulted to understand their operations and strategies. To collect further information, templates specific to each thematic area were designed. Each template had targeted questions about PPSA operations related to a given theme. The PPSAs were encouraged to provide evidence in the form of data and pictures to meaningfully communicate the impact created by their interventions. They were asked to share the obstacles faced in implementation which ranged from policy-level challenges to human resource and geographical barriers. The templates aimed to understand PPSA operations, the challenges encountered, and the innovative solutions employed to address them.

The agencies featured in this compendium were selected on the basis of their ability to create an impact in their operational regions, as communicated through the templates. This was discerned through their contribution to the programme indicators (from the TB Index). The analysis factored in the impact of the COVID-19 pandemic on the TB programme and hence, the performance of the PPSAs in the year 2020. Above all, this exercise was aimed at highlighting the value-add and innovation of the public private partnerships to TB elimination from India, but also the potential of such undertakings for the healthcare sector generally.

HOW TO USE THIS DOCUMENT

The compendium captures best practices in the form of case studies across thematic areas that cover the life course of private sector engagement efforts for TB elimination from India. It has been designed in a manner that the case studies under the six themes can be used as stand-alone documents.

The compendium employs the life-course approach by documenting the entirety of PPSA operations from the initial contact with the private healthcare providers to reporting treatment outcomes of patients.

1. The first theme, **"Private Provider Mapping and Engagement"** examines the innovative efforts undertaken to map, sensitize and engage private providers, to secure their active buy-in to the programme and their adherence to NTEP diagnostic and treatment protocols.

2. The second theme, **"Screening and Access to Diagnostics"** highlights the essence of the PPSA model by spotlighting innovations aimed at increasing patient accessibility to standard free-of-cost screening and diagnostic tools.

3. The third theme, **"Access to treatment"** spotlights innovative measures employed by PPSAs to improve the uptake of government Fixed Dose Combinations (FDCs), and the role that other private providers including chemists, informal providers, can play in improving accessibility.

4. The fourth theme of the report, **"Patient Adherence and Social Support"** details the importance of treatment adherence and the role of PPSAs in ensuring the social support provision is provided to all patients recovering from TB.

5. The fifth theme, **"Project Management"** showcases innovative management practices to streamline internal and external operations – from improved project management to strengthening patient validation and payment measures.

6. The final theme, **"State-led private provider engagement"** presents an innovative implementation of the PPSA model. It highlights the role of the state, led by the district NTEP staff, in directly engaging with the private sector providers to provide standarised and quality care to all patients.

A CLOSER LOOK AT

PRIVATE SECTOR ENGAGEMENT MODELS

WORLD HEALTH PARTNERS (WHP), BIHAR

Operational in 8 districts of Bihar (Bhagalpur, Bhojpur, Gaya, Katihar, Munger, Nalanda, Patna and Saharsa) since June 2020

SCREENING AND DIAGNOSTICS

WHP REIMBURSES LABS **RS 120/ TEST** FOR CO-MORBIDITY SCREENING

FROM JUNE 2020 TO MAY 2022, WHP HELPED NOTIFY 3,919 TB CASES, AND 55% OF ALL UDST WAS DONE THROUGH ITS INHOUSE LAB

Presumptive TB patient approaches private provider

Doctor prescribes appropriate diagnostic tests

Test results uploaded by the private provider or WHP's Field Officer

Person with TB is prescribed co-morbidity screening and UDST

Patient undergoes free co-morbidity testing at PPSA-engaged labs using a voucher

WHP conducts UDST at its lab

Lab uploads the test results

*UDST: Universal Drug Susceptibility Testing

ACCESS TO TREATMENT

FDC UPTAKE INCREASED IN 8 DISTRICTS OF BIHAR FROM 30% TO 59% FROM JUNE 2020 TO MAY 2022

CHEMISTS ARE PROVIDED AN INCENTIVE OF **RS 30** PER PATIENT FOR DISPENSATION OF DRUGS FOR A MONTH

Doctor shares diagnosis with patient and provides voucher for FDC

Patient receives monthly dosage of FDC at the nearest empanelled pharmacy

WHP's Treatment Coordinator uploads patient's bank details in *Ni-kshay* Portal for NPY disbursement

VOUCHERS ARE USED AS A STORE OF VALUE THAT ENTITLES A PATIENT TO FREE CO-MORBIDITY TESTS OR FDC FROM AN EMPANELLED PRIVATE PROVIDER

A CLOSER LOOK AT FDC MANAGEMENT

WHP or provider requests drugs from the NTEP through *Ni-kshay Aushadi*

WHP stores FDCs at its warehouse and the Field Officers distribute the drugs to chemists

Chemist updates drug details in *Ni-kshay Aushadi* and stock register

*FDC: Government approved Fixed-Dose Combination of drugs

TREATMENT ADHERENCE SUPPORT

WHP's Treatment Coordinator conducts counselling, contact tracing, and TPT

Call centre does counselling, adherence monitoring, and outcome reporting on *Ni-kshay* Portal

MIS staff consolidates list of unproductive calls and missed drug refills

Treatment support team visits the patients not reached through the call centre

WORLD HEALTH PARTNERS, BIHAR

World Health Partners (WHP) started its operations in 8 districts of Bihar: Bhagalpur, Bhojpur, Gaya, Katihar, Munger, Nalanda, Patna, and Saharsa in June 2020. The PPSA has 96 employees comprising of district managers, project coordinators, treatment coordinators, and sputum collection & transportation agents catering to a population of nearly 31 million people.

Within 3 months of initiating operations in June 2020, WHP identified over 1000 formal providers, and an additional 479 doctors over the next two years. It also engaged with over 1,500 informal providers, encouraging them to refer patients to public care facilities. While informal providers contributed to 7% of the total notifications in the 8 districts, over 47% notifications in Saharsa were registered because of referrals by informal providers. This highlights the merit of engaging with the informal providers for achieving programme goals. Furthermore, WHP provided an incentive of Rs 100 per notification to compounders of private providers to encourage regular reporting.

To ensure that patients in the private sector have access to quality and standardised diagnostics and treatment, the patients were provided vouchers for free co-morbidity testing and government FDC at empanelled labs and compounders. To achieve this, WHP sensitised and onboarded 276 pharmacies across the 8 districts and provided an incentive of Rs 30 per patient for dispensation of a month's worth of government FDC. Given this intervention, government FDC uptake in 8 districts of Bihar increased from 30% to 59% from June 2020 to May 2022.

To complement the State's efforts to increase drug susceptibility testing, WHP established a lab with 5 CBNAAT and TrueNat machines in Patna in 2020. The equipment was leveraged from donors or other implementing partners, and NAAT cartridges were provided by the NTEP. WHP also hired two trained technicians to run the operations. The lab processes samples not just from Patna, but other nearby districts too. Depending on the sample load, the lab expands its operations to include night shifts as well. As of May 2022, World Health Partners' in-house lab processed ~21,000 samples and contributed to 55% of the UDST figures in the region. Owing to their operations, almost 4,000 TB cases have been detected from June 2020 to May 2022.

WHP also engaged private labs to enable free co-morbidity testing for patients. The empanelled labs would be reimbursed Rs 120 per HIV test. If a patient tested positive, WHP offered counselling support and informed them about the available interventions.

For agencies catering to a large segment of population, especially in difficult terrains, it is not feasible to undertake regular in-person household visits for patient counselling and follow-up purposes. In such scenarios, call centres become an effective mechanism for extending adherence support to patients in conjunction with the team of field staff. To strengthen treatment adherence support to the patients, WHP established a call centre, which is a part of the patient monitoring unit comprising of MIS and treatment support staff. The call centre offers telecounselling to patients, monitors treatment adherence, and reports treatment outcomes on the Ni-kshay portal. The MIS team makes a list of unproductive calls and shares it with the treatment support team on ground. This team physically reaches out to patients unreachable through the call centre. According to the agency, telecallers can make 120 calls per day, as compared to 8 household visits by one field officer. Using call centres to support the existing on-ground outreach workers can therefore, increase the efficiency and scale of operations.

DOCTORS FOR YOU (DFY), MUMBAI

Operational in three blocks of Mumbai: Chembur, Centenary, and Govandi since September 2019

SCREENING AND DIAGNOSTICS

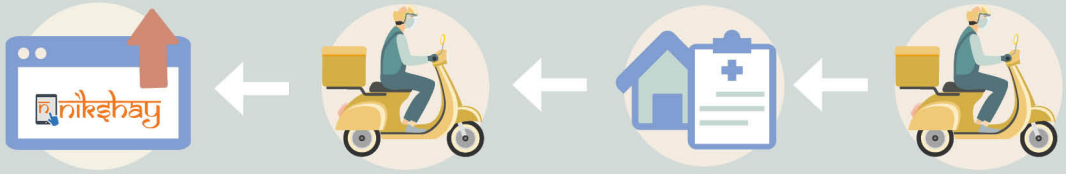
THROUGH SUCCESSFUL OUTREACH AND SENSITIZATION, DFY HAS ONBOARDED **22 X-RAY LABS** INTO THE VOUCHER SYSTEM

Patient seeking care → Doctor prescribes NAAT* and provides a chest X-ray (CXR) voucher → Patient visits a lab empanelled by DFY → Using the voucher, X-ray is performed free-of-cost → Patient submits sputum sample at doctor's clinic/hospital

VOUCHERS ARE USED AS A STORE OF VALUE THAT ENTITLES A PATIENT TO FREE CXR FROM AN EMPANELLED PRIVATE PROVIDER

*NAAT: Nucleic Acid Amplification test

DFY FACILITATED SCREENING OF **82-85%** OF ALL PRESUMPTIVE CASES USING THE FREE X-RAY SERVICE, OF WHICH **25-34%** WERE SCREENED POSITIVE



DFY's agent transports samples to the nearest testing facility → Facility tests the samples and provides results to the DFY agent → DFY's agent transports test report to the doctor → Uploads test results on *Ni-kshay*

DISTRICT TB CELL PROVIDES AN INCENTIVE OF **RS 100** PER PATIENT TO CHEMISTS FOR DISPENSATION OF 1 MONTH FDC

ACCESS TO TREATMENT

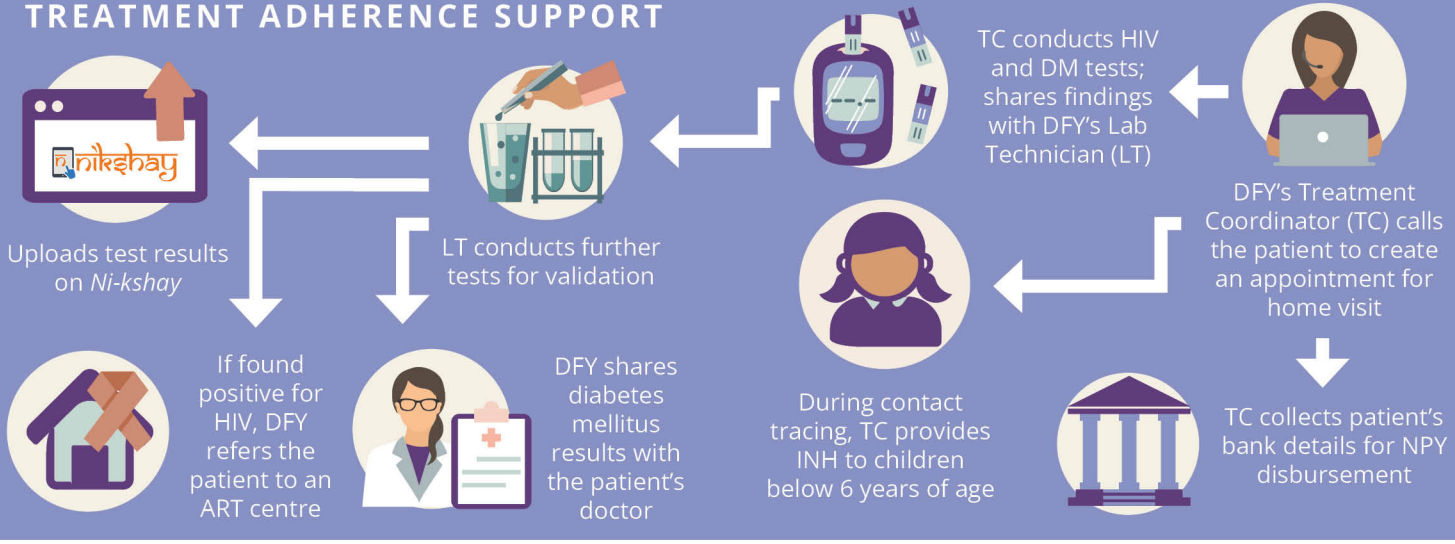
A CLOSER LOOK AT FDC MANAGEMENT

Doctor prescribes FDC* and refers the patient to the nearest empanelled chemist → Patient visits the chemist and collects FDC using the prescription

*FDC: Government approved Fixed-Dose Combination of drugs

DFY collects consumption reports from chemists and submits them to the District TB Cell (DTC) → DTC validates reports, releases payment to chemists, and provides FDC stock to DFY → DFY distributes FDC among the empanelled chemists

TREATMENT ADHERENCE SUPPORT



DFY's Treatment Coordinator (TC) calls the patient to create an appointment for home visit → TC collects patient's bank details for NPY disbursement

During contact tracing, TC provides INH to children below 6 years of age

TC conducts HIV and DM tests; shares findings with DFY's Lab Technician (LT) → LT conducts further tests for validation → Uploads test results on *Ni-kshay*

DFY shares diabetes mellitus results with the patient's doctor

If found positive for HIV, DFY refers the patient to an ART centre

DOCTORS FOR YOU

Since September 2019, Doctors For You (DFY) has been operational in three blocks of Mumbai: Chembur, Centenary, and Govandi catering to a population of 1.3 million people. The DFY team consists of programme management staff, training personnel, sputum collection agents, and community field representatives.

The Maharashtra NTEP has mandated free chest X-ray for all presumptive TB cases to reduce the screening and diagnostic expenses by the patients. For this purpose, DFY has onboarded 22 private X-ray labs into the voucher system and facilitated screening of 82-85% of presumptive cases using the free X-ray service.

To reduce the out-of-pocket expenditure for patients, DFY's agents transport patient's sputum sample from the doctor's clinic or hospital to the nearest testing facility. They also deliver the test reports to the doctor for further action, who then notify patients on the *Ni-kshay* platform.

In addition to easing accessibility to quality diagnostics, DFY facilitates patient access to government-approved Fixed-Dose Combination (FDC) of drugs. The District TB Cell pays the chemists an amount of Rs 100 per patient on dispensation of one month's worth of FDC. This ensures patients in the private sector also consume standardised quality drugs at no cost.

Doctors For You facilitates nutritional support to the patients by collecting their bank details for monthly disbursement of Rs 500 under the, *Ni-kshay Poshan Yojana*. The treatment coordinators from DFY conduct HIV and diabetes mellitus tests during their visits to patients' homes. Based on the test reports, the patients are counselled and connected to healthcare providers and centres for further course of action. The treatment coordinator also undertakes contact tracing and provides prophylaxis to eligible people.

ALERT INDIA, MAHARASHTRA

Operational in five wards of Mumbai (Bail Bazar Road, Ghatkopar, Kurla, Mulund, and Vikhroli) since February 2018

SCREENING AND DIAGNOSTICS

Patient seeking care

Doctor prescribes NAAT* and provides a chest X-ray (CXR) voucher

Patient visits the nearest hub or facility and gives specimen for NAAT testing

OVER **35,000** X-RAY VOUCHERS PER YEAR ARE AVAILABLE FOR SCREENING PRESUMPTIVE TB PATIENTS

ALERT India's field representative collects the sample and transports it to the nearest CBNAAT site

X-RAY LABS ARE REIMBURSED AN AMOUNT OF **RS 300** PER PATIENT

Facility tests the samples and provides results to the ALERT India agent

Field representative transports test reports to the doctor

Uploads test results on *Ni-kshay*

VOUCHERS ARE USED AS A STORE OF VALUE THAT ENTITLES A PATIENT TO FREE CXR FROM AN EMPANELLED PRIVATE PROVIDER

*NAAT: Nucleic Acid Amplification test

ACCESS TO TREATMENT

ALERT INDIA ONBOARDED **53** CHEMISTS INTO THE FREE FDC SYSTEM

Doctor prescribes FDC and refers patient to the nearest empanelled chemist

Patient visits a chemist and collects free FDC

ALERT India collects consumption reports from chemists and submits them to the CTO

DTC validates reports, releases payment to chemists, and provides FDC stock to Alert India

ALERT India distributes FDC among the

FROM JAN 2021 TO JUNE 2022, CHEMISTS NOTIFIED **86 PATIENTS**

TREATMENT ADHERENCE SUPPORT

ALERT India provides additional support to the patients

Refers patients for co-morbidity screening

Collects patient's bank details for NPY disbursement

Contact tracing and ensures provision of prophylaxis to potential patients

If found positive for HIV, ALERT India refers the patient to an ART centre

ALERT India shares DM results with the patient's doctor

ALERT INDIA

In Maharashtra, ALERT India has been operational in 5 wards of Mumbai: Bail Bazar Road, Ghatkopar, Kurla, Mulund, and Vikhroli since February 2018. It has 50 employees ranging from project director and FDC manager to field supervisors and treatment coordinator that cater to a population of 2.7 million people.

ALERT India mapped and sensitised 535 formal providers, 67 of whom are actively engaged in the programme. Out of the 1728 informal providers mapped in these 5 wards, 349 are actively referring patients.

The Maharashtra NTEP has mandated free chest X-ray for all presumptive TB cases. ALERT India has a provision of over 35,000 vouchers per year, redeemable at private labs that are reimbursed Rs 300 per chest X-ray.

To make diagnostics affordable and accessible to the patients, ALERT India has field representatives that collect and transport patient's sputum to the nearest public sector CBNAAT facility.. Once the tests are complete, the agency also delivers the test report to the patient's doctor, thus reducing the out-of-pocket expenditure for patients.

During their operations, the State NTEP was facing a CBNAAT machine shortage, even as cartridges were in ample supply. To address this situation, ALERT India entered into an innovative arrangement with Johnson & Johnson (J&J) under their CSR initiative. The agency supplied cartridges to three local private labs to conduct the tests on their machines. Through the collaboration with J&J, the agency provided supply chain management support to the labs and covered their testing costs. The 6-month long arrangement with J&J enabled UDST for 6000 patients.

To make quality and standard treatment available to patients, ALERT India also onboarded 53 chemists who provide free government Fixed Dose Combination (FDC) drugs to all patients, thereby making drug availability more convenient to the patient In addition to dispensing FDC, the chemists also notify the missing cases to the programme, thus contributing to achievement of two important priorities of the TB programme.

ALERT India supports the programme in additional ways, such as undertaking contact tracing, ensuring provision of prophylaxis to those in close contact with TB patients, and extending co-morbidity screening support to patients. If the patient tests positive for diabetes or HIV, ALERT India refers them to appropriate treatment centres. The agency also helps the patients receive their *Ni-kshay Poshan Yojana* entitlements by seeding patient's bank account for monthly disbursement of Rs 500.

WILLIAM J. CLINTON FOUNDATION (WJCF) WITH TATA 1 MG, FARIDABAD

WJCF partnered with TATA 1mg to demonstrate the effectiveness of PPSA interventions through for-profit organisations and launched a pilot in Faridabad, Haryana in September 2020. The pilot ended in June 2022.

SCREENING AND DIAGNOSTICS

TATA 1MG IS A DIGITAL HEALTHCARE PLATFORM THAT OFFERS A WIDE RANGE OF SERVICES, SUCH AS DELIVERY OF DRUGS, HOME SAMPLE COLLECTION, AND PATIENT COUNSELLING

Patient seeking care → Doctor prescribes diagnostic tests → Hub Agent schedules sample collection for CBNAAT with the patient → Agent collects sputum from the patient's home and delivers it to a CBNAAT facility → Lab conducts test and shares report with the hub

Hub shares the results with the patient electronically → Hub agent notifies the patient on *Ni-kshay*

WJCF NOTIFIED A TOTAL OF **3080 CASES** IN FARIDADAD

WJCF PROVIDED AT-HOME DIAGNOSTIC SERVICES TO **651 PATIENTS** WITH AN AVERAGE TURN AROUND TIME OF **20.81 HOURS** FOR SAMPLE COLLECTION

ACCESS TO TREATMENT

TB case confirmed by doctor → Doctor prescribes FDC and provides FDC voucher to the patient → WJCF's hub agent provides FDC as per the 1st prescription and shares details with TATA 1mg → TATA 1mg telecaller reminds the patient about the next consultation with the doctor → Patient visits the doctor and shares prescription with TATA 1mg electronically

TATA 1mg telecaller schedules drug delivery → TATA 1mg delivery agent delivers FDC to the patient → WJCF's hub agent monitors the delivery status

TILL DECEMBER 2021, WJCF INITIATED **848 PATIENTS** ON FDC AND COMPLETED **2826 DELIVERIES** WITH AN AVERAGE TURNAROUND TIME OF **31.1 HOURS**

TREATMENT ADHERENCE SUPPORT

Treatment coordinator offers additional services to the patient

Co-morbidity screening: HIV and DM testing

Counselling support for treatment adherence

WJCF PROVIDED COUNSELLING TO **1309 PATIENTS** IN FARIDABAD

WILLIAM J. CLINTON FOUNDATION WITH TATA 1MG,FARIDABAD

In contrast to the scenario where Community Based Organisations (CBOs) act as PPSAs, this case study documents the value-addition to the TB programme by partnering with a for-profit organisation specialising in logistics and inventory management. The William J. Clinton Foundation (WJCF) tested a private sector engagement model by partnering with Tata 1mg in a pay-per-service contract. The pilot was launched in Faridabad, Haryana in September 2020 and ended in June 2022.

Tata 1mg is a digital healthcare platform that offers a wide range of services, such as delivery of drugs, home sample collection, and patient counselling. Tata 1mg provided at-home diagnostic services to ~650 people. Tata 1mg's agent would collect sputum sample from the patient's home and deliver it to the nearest CBNAAT facility for testing. The average turnaround time for sample collection was ~20 hours, with nearly 86% samples collected within 24 hours of the request.

After a patient was diagnosed with TB, Tata 1mg's telecaller would remind them about the next consultation and deliver government FDC at their doorstep. As of December 2021, WJCF initiated ~850 patients on FDC. The organisation also completed ~2800 deliveries with an average turnaround time of 31 hours.

The treatment coordinators at William J. Clinton Foundation conducted HIV and diabetes mellitus screening for patients and offered counselling services as well. They counselled a total of ~1300 patients in Faridabad.

PATIENT PROVIDER INCENTIVE SCHEME (PPIS), RAJASTHAN

Government of Rajasthan launched PPIS in August 2020 to directly engage with private providers to improve TB-related outcomes. Private providers are incentivised at every step of the TB care cascade for programme-related indicator performance

PRIVATE PROVIDER MAPPING AND SENSITISATION

District TB Officer (DTO) reaches out to private providers

Private provider is enrolled in the scheme

DTO obtains Health Facility ID (HF-ID) and creates *Ni-kshay* logins for providers not registered

DTO collects provider's bank details

AS OF DECEMBER 2022, **~6800 PRIVATE PROVIDERS** HAVE BEEN ENROLLED IN PPIS

SCREENING AND DIAGNOSTICS

PROVIDER INCENTIVE OF **RS 200** ON NOTIFICATION AND **RS 300** ON BANK SEEDING

Patient seeking care

Doctor prescribes diagnostic tests

Private provider notifies the patient on *Ni-kshay* and seeds bank details for NPY

Provider prescribes UDST & co-morbidity screening to patient

Patient visits designated testing lab

Provider nominated agent collects sample from home

Report is shared with the provider

Uploads test results on *Ni-kshay*

NOTIFICATIONS THROUGH PRIVATE PROVIDERS ENGAGED IN THE SCHEME INCREASED BY **50%** FROM AUG 19- AUG 20 TO AUG 20-21

INCENTIVE OF **RS 400** EACH FOR UDST AND CO-MORBIDITY SCREENING

INCENTIVE OF **RS 300** FOR FDC DISTRIBUTION

ACCESS TO TREATMENT

Provider is registered on *Ni-kshay Aushadi* as third party/PHI

NTEP staff distributes FDC stock to providers on case-to-case basis

Provider issues FDC to the patient

Provider updates patient-wise drug record on *Ni-kshay*

Provider submits the stock statement and invoice to DTO every month

TREATMENT ADHERENCE AND OUTCOME

State call centre provides adherence support to patients

Private Provider updates treatment completion details on *Ni-kshay*

INCENTIVE OF **RS 400** ON REPORTING SUCCESSFUL TREATMENT OUTCOME

PATIENT PROVIDER INCENTIVE SCHEME, RAJASTHAN

State NTEP, Rajasthan launched the Patient Provider Incentive Scheme (PPIS) in August 2020 in 26 districts of the state. Following its success, the scheme was rolled out in the remaining 8 districts as well in August 2021. PPIS provides a mechanism for the state to directly engage with private providers, without the use of intermediary Community Based Organizations, to improve TB service delivery and hence, health outcomes.

Private providers are eligible for incentives at every step of the TB care cascade and are paid once they complete each of the following six tasks: notifying patients, seeding patient's bank account, UDST, co-morbidity screening, distributing FDC, and reporting treatment outcome.

To begin, the district NTEP office identifies and sensitizes private providers to enrol them in the PPIS model. Once providers enrol in the scheme, the district TB team helps them register on the *Ni-kshay* portal, if they aren't already on the system. Providers report all public health actions undertaken for diagnosis and treatment on the *Ni-kshay* portal.

Providers are paid Rs 200 for each patient notified, and Rs 300 for uploading each patient's bank account details for *Ni-kshay Poshan Yojana (NPY)* entitlements. To undertake UDST and co-morbidity screening (HIV and DM), private providers are expected to facilitate sample collection and transportation to a designated lab, sometimes using agents to facilitate the process. Providers receive an incentive of Rs 400 each for uploading UDST and co-morbidity screening results on the *Ni-kshay* portal.

For FDC distribution, the district NTEP registers private providers on the *Ni-kshay Aushadi* portal as a third party, and issues drug stock based on their requirements. FDC is stored at the district hub and is issued to the provider as per their requirements. Providers receive Rs 300 for dispensing FDC to their patients, details of which are updated by providers in the *Ni-kshay* portal's Dispensation module.

Lastly, private providers report treatment outcomes on *Ni-kshay*, and are provided an incentive of Rs 400 for successful cases.

Each stage of incentive disbursement undergoes a verification process. To ensure timely verification and payment, the state NTEP has developed a payment tracker and dashboard to ensure claims are raised, verified, and paid in a timely fashion. Out of the Rs 2 crores claimed by the providers through PPIS, Rs 1.7 crores had been settled as of May 2022.

As of December 2022, ~6,800 private providers have been enrolled in the PPIS initiative, of whom ~4300 providers have been actively notifying cases. In the year 2022, these private providers notified ~43,000 patients, seeded bank accounts for 72% of the eligible NPY beneficiaries, facilitated HIV screening of ~36,000 patients, and conducted UDST for 27% patients. PPIS reported treatment success rate of 89% in 2022.

THEME A

PRIVATE PROVIDER MAPPING AND ENGAGEMENT

Health care providers in the private sector include physicians, chemists, laboratories, and informal providers and AYUSH providers. They are the first point of care for more than 50% of patients (India TB Report, 2022). Regardless of the sector they approach, it is important to ensure that TB patients receive high quality care. To achieve this, it is necessary that the private providers across the country are aware of the NTEP diagnostic and treatment protocols.

Health Facility ID where they, or the allocated representative, notify TB cases and report patient treatment outcomes (Guidance Document on Partnerships, 2019). This ID is also used to avail the incentives that providers are eligible for by virtue of their active participation in the programme.

Engaging with them through sustained relationship building, regular meetings, and grievance redressal allows the programme

BY ENGAGING THE PRIVATE PROVIDERS, THE NTEP AIMS TO ACHIEVE THE FOLLOWING OBJECTIVES:

1. **Improve notification of TB patients from the private sector**
2. **Extend quality TB care at no/minimal cost to all patients**
3. **Ensure that all TB patients receive their entitlements, such as the *Ni-Kshay Poshan Yojana* (NPY) and transport incentives for those living in notified tribal area**

To achieve these goals, State and District TB Cells, with support of Patient Provider Support Agencies (PPSAs) as applicable, are expected to conduct a mapping of private sector providers in their regions. When mapped, providers are to be engaged and informed about the key developments in diagnosis and testing protocols as well as patient entitlements. The providers are registered on Ni-kshay with a Ni-kshay

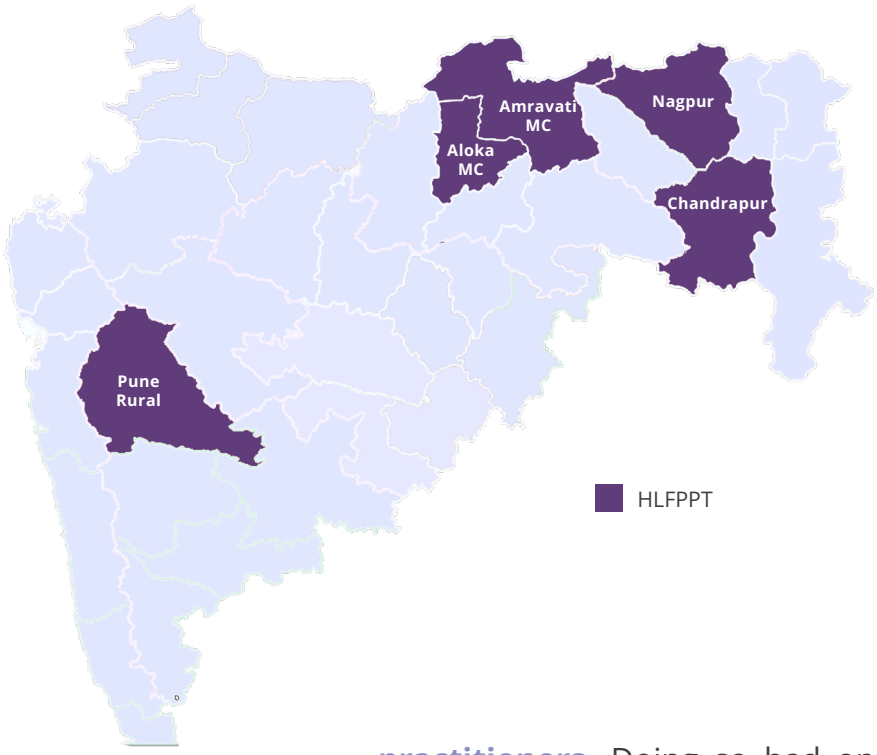
to ensure that cases treated in the private sector are notified and standard care is provided as per NTEP guidelines. The end goal of this endeavour is that all patients who seek care in the private sector are ensured quality services at the established national standard at minimal cost – and this begins at the point of provider mapping and sensitization.

CASE STUDY I: Engaging chemists, testing labs, and AYUSH practitioners for increased case notification and support toward key programmatic interventions

Patient Provider Support Agency: *Hindustan Latex Family Planning Promotion Trust*

HLFPPT has been engaging with private providers under a PPSA engagement model across five districts in Maharashtra[1] since March 2021. A critical component under PPSA models such as these is to ensure that all private care facilities operational in a region are mapped and sensitized, and regularly notify TB cases that are detected.

Maharashtra - HLFPPT



MAPPING CHEMISTS, LABS, AND AYUSH PRACTITIONERS

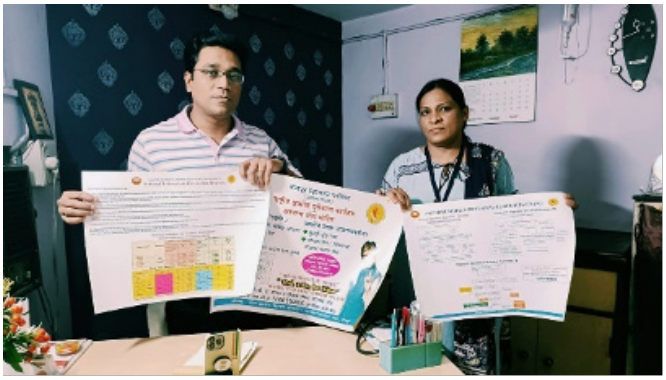
To identify all the providers in its region, the organization received a list of 5,597 private providers that the District TB Officers/City TB Officers maintained for their region. HLFPPT supplemented this list by identifying an additional 860 private providers, under a "Universal Mapping Exercise" undertaken by their field officers. This entailed supplementing the list provided by the DTOs' office with door-to-door identification of providers and working with professional medical associations to map more providers. The identified providers included **chemists associated with the leading practitioners, private diagnostic labs, and AYUSH practitioners.** Doing so had one principal objective – to identify missing TB cases and notify them – along with other areas of support such as building linkages for sputum transport and stocking of government FDCs.

[1]Akola MC, Amravati, Nagpur, Pune Rural and Chandrapur

ENCOURAGING AYUSH PRACTITIONERS FOR CASE REFERRAL

When working with AYUSH providers, the agency requested that all presumptive TB cases be referred to the nearest public healthcare facility.

AS A RESULT OF THIS TARGETED ENGAGEMENT, 8% OF ALL AYUSH PROVIDERS ARE ACTIVELY REFERRING ALL PRESUMPTIVE TB CASES TO PUBLIC FACILITIES, LEADING TO AN ADDITIONAL 15-20 NEW TB NOTIFICATIONS PER MONTH



Sharing IEC materials with AYUSH doctors

WORKING WITH PATHOLOGIST AND PHARMACIST ASSOCIATIONS TO IDENTIFY MISSING CASES

Initially, the agency encountered resistance from private labs and chemists in the Nagpur Municipal Corporation to share data on presumptive case examination, and H1 data, respectively.

To address this , the agency brought the issue to the attention of the administration and the State TB Cell. Through a letter issued by the District Commissioner, together with the NTEP officials, the agency met with the Pathologist and Pharmacist Associations to garner their support and direct the labs and chemists to share monthly data. By maintaining regular communication with the chemists and labs through channels such as dedicated WhatsApp groups and an email address to facilitate routine data sharing, the agency was successful in identifying missing TB cases.

These targeted advocacy efforts led to **26 (out of the 86 engaged)** labs routinely sharing monthly data on the number of TB tests conducted.

This data is cross-checked with the case notification records and is used by the District NTEP to supplement their presumptive case examination records. H1 data obtained from the chemists and data from labs is cross-checked with Ni-kshay records to verify the cases and identify missing cases from the official records.

GOING BEYOND NOTIFICATIONS

Chemists, laboratories, and private providers specialised in different areas of expertise bring in additional opportunities to provide specialised patient care. HLFPPT recognized this as a unique opportunity to elicit their support for programmatic priorities beyond notification.

For instance, chemists associated with prominent care providers were encouraged to stock government FDCs, to ensure that patients are provided with one-stop-TB management at no cost. Specialized care providers (such as orthopaedists, ophthalmologists, gastroenterologists etc) were separately marked at the time of mapping to ensure Extra Pulmonary TB management at the time of screening, and management of Adverse Drug Reactions (ADR).

Lastly, leading private testing labs where patients are referred by the private practitioners were engaged for HIV and Diabetes Mellitus (DM), ensuring that those diagnosed with TB can also avail co-morbidity screening at the same time.

BEST PRACTICES

- Labs, chemists, and AYUSH providers are common touchpoints for those seeking care in the private sector. PPSAs must expand the categories of providers they engage and sensitize, to identify missing cases.
- In case there are challenges with engaging providers, PPSAs may consider advocating for the support of medical associations with state and district administration to create an additional lever for greater engagement of private providers. HLFPPT worked with Pharmacy and Pathology Associations to encourage complete support of chemists and labs. The patient and H1 data shared by these providers helped the agency identify missing cases and led to an increase in notification of cases diagnosed in the private sector.
- PPSAs must create and leverage strong relationships with private providers to gain their support much beyond the notification of TB cases. Some areas of support include dispensing free government FDCs, providing patient support benefits (NPY), Universal Drug Susceptibility Testing, management of extra-pulmonary TB, co-morbidity screening, etc.

FOR FURTHER DETAILS, CONTACT:

Dr. Sangita Pandey
National Lead, Hindustan Latex Family Planning Promotion Trust
psangita@hlfppt.org
+91 945012316

CASE STUDY II: Building trust and providing incentives for furthering programme objectives

Patient Provider Support Agency: *World Health Partners*

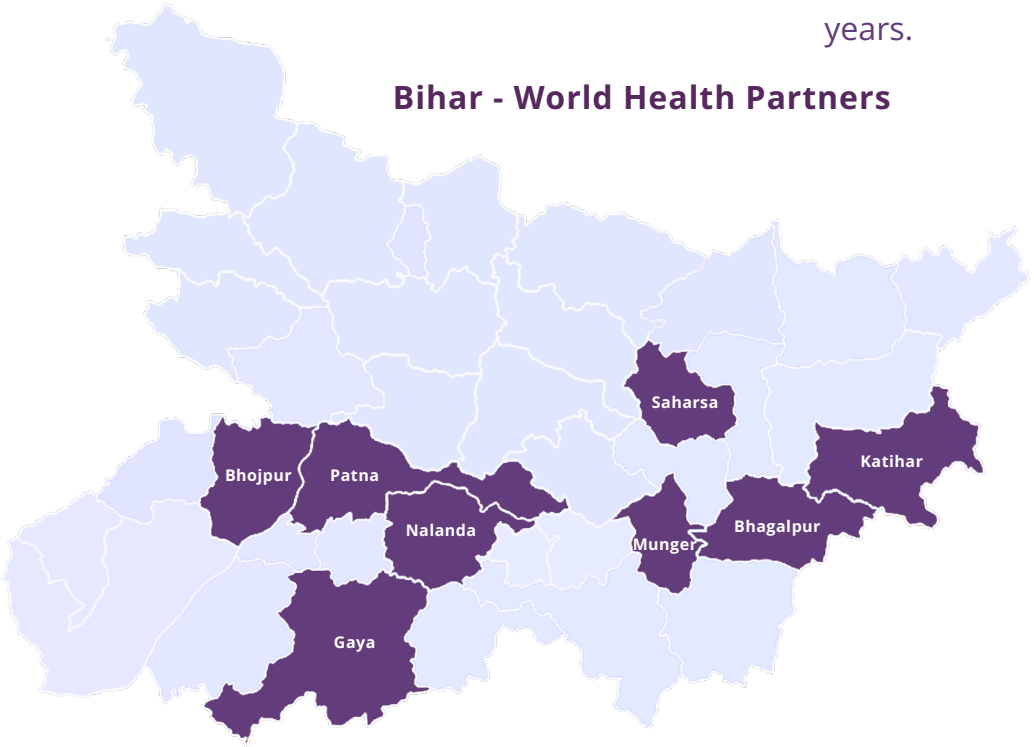
World Health Partners has been engaging with private providers under a PPSA engagement model across eight districts in Bihar [2]. One of the sites of their work includes Patna, the site of the initial Public Private Interface Agency (PPIA) intervention, which contributed to over 65% of total notifications by Patna's private sector in 2019. Since providers from Patna have a history of being acquainted with the NTEP, WHP had to ensure that providers previously sensitized under PPIA continued to engage favourably with the programme, and that new providers were brought into the fold as well.

CONTINUOUS MAPPING, ENGAGEMENT OF PROVIDERS AND PROVIDING INCENTIVES

Since mapping and engaging the providers is a dynamic activity, WHP regularly updates the list of private providers, removing the inactive clinics and adding new facilities to their lists.

Having started their operations in June 2020, the agency identified over **1000 formal providers** over a period of three months, and **479 more doctors** over the next two years.

Bihar - World Health Partners



[2] Bhojpur, Bhagalpur, Gaya, Katihar, Munger, Nalanda, Patna, and Saharsa

WHP's visiting a private provider

They sought support of the chemists as well as professional medical associations for the mapping exercise. The agency approached the Indian Medical Association and the Indian Paediatric Association to garner their support. The associations helped WHP map the private providers by sharing the lists of active providers and engage with the providers who were otherwise reluctant to participate in the programme Agency's field staff used CommCare app (a data collection platform) to capture details of the providers on their mobile phones. The MIS team prepared format for capturing data, including the GPS coordinates of the providers. This information was also uploaded on the *Nikshay* Portal.

Furthermore, WHP categorised formal providers into high notifying (over 100 notifications per annum), medium (50-100 notifications per annum, and low notifying categories (less than 50 TB notifications per annum). They maintained regular contact with high notifying doctors to encourage them.

Almost **80% TB case notifications** came from **18% of the providers.**

The agency provided incentives to compounders attached to these engaged private providers to encourage timely notification of all diagnosed cases. While the term 'compounder' traditionally refers to pharmacists who compound medicines, more commonly it refers to doctor's assistant responsible for day-to-day administration.

Many compounders are tasked with case notification and entry on the *Nikshay* portal, especially in clinics with high patient loads. WHP provided an incentive of Rs 100 per patient notified to the compounder to encourage regular reporting.

ENGAGING INFORMAL PROVIDERS IN RURAL GEOGRAPHIES

The project's geography also included rural areas – almost 70-80% of the region covered rural populations. Research suggests that informal providers cater to more than 70% of all primary care in these geographies. This segment of population is otherwise often overlooked in the formal healthcare system, as the formal care providers are concentrated in urban areas.

WHP identified and engaged with over **1,500 informal providers,** encouraging them to refer patients to public care facilities.

DISTRICT NAME	INFORMAL PROVIDERS			FORMAL PROVIDERS			TOTAL PATIENTS NOTIFIED (JAN'21 - MAY '22)
	PROVIDERS ENGAGED	PROVIDERS NOTIFIED	% CONTRIBUTION	PROVIDERS ENGAGED	PROVIDERS NOTIFIED	% CONTRIBUTION	
Patna	219	287	1%	685	32,237	99%	32,524
Gaya	305	608	5%	148	10,958	95%	11,566
Bhojpur	116	372	9%	92	3,954	91%	4,317
Nalanda	93	155	3%	118	4,462	97%	4,617
Bhagalpur	238	419	4%	193	9,279	96%	9,698
Katihar	131	518	6%	125	8,174	94%	8,692
Munger	121	452	9%	76	4,441	91%	4,893
Saharsa	226	1,796	34%	66	3,439	66%	5,235
Grand Total	**1,449**	**4,607**	**6%**	**1,503**	**76,935**	**94%**	**81,542**

KEY PERFORMANCE INDICATORS
PRIVATE PRACTITIONERS ENGAGED AND ACTIVE (NOTIFIED A CASE IN LAST 3 MONTHS)

DISTRICT	ENGAGED	ACTIVE AND NOTIFYING
Patna	685	387 (56%)
Gaya	148	107 (72%)
Bhojpur	92	56 (61%)
Nalanda	118	77 (65%)
Bhagalpur	193	122 (63%)
Katihar	125	70 (56%)
Munger	76	48 (63%)
Saharsa	66	41 (62%)
Cumulative	**1503**	**908 (60%)**

While informal providers contributed to **7% notifications** overall, districts such as Saharsa registered over **47% of all notifications** coming from informal providers as referrals.

FURTHERING OTHER PROGRAMME OBJECTIVES WITH THE USE OF FINANCIAL INCENTIVES

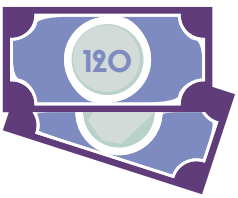
WHP is also taking support from chemists for FDC stocking and dispensing; they are provided an incentive of Rs 30 per patient on dispensation of drugs for a month. Similarly, private labs support Universal

Drug Susceptibility Testing (UDST) and co-morbidity screening; where they are reimbursed Rs 120 per test for the latter. Advancing the goals of universal healthcare coverage, the laboratories have been engaged to provide free HIV and DM testing to patients, as well as to perform chest X-ray.

USING INCENTIVES TO ENCOURAGE ACTION:

FOR COMPOUNDERS:
Rs 100 per patient notified

FOR CHEMISTS:
Rs 30 per patient for one month's FDC dispensation



FOR LABS:
Rs 120 for co-morbidity screening

BEST PRACTICES

- Consider the use of incentives to private providers to gain their support beyond notifications. Providing nominal incentives to the private providers, such as Rs 120 to the labs, helped secure their support to further programmatic priorities such as co-morbidity screening
- PPSAs must employ context-specific strategies to engage private providers. In this case study, World Health Partners worked with informal providers catering to large segments of population in rural areas to diagnose TB cases
- Investing time and effort to build relationships with private providers through continuous engagement can help agencies identify not just the missing cases, but also help ensure that the private providers adhere to the NTEP diagnostic and treatment protocols

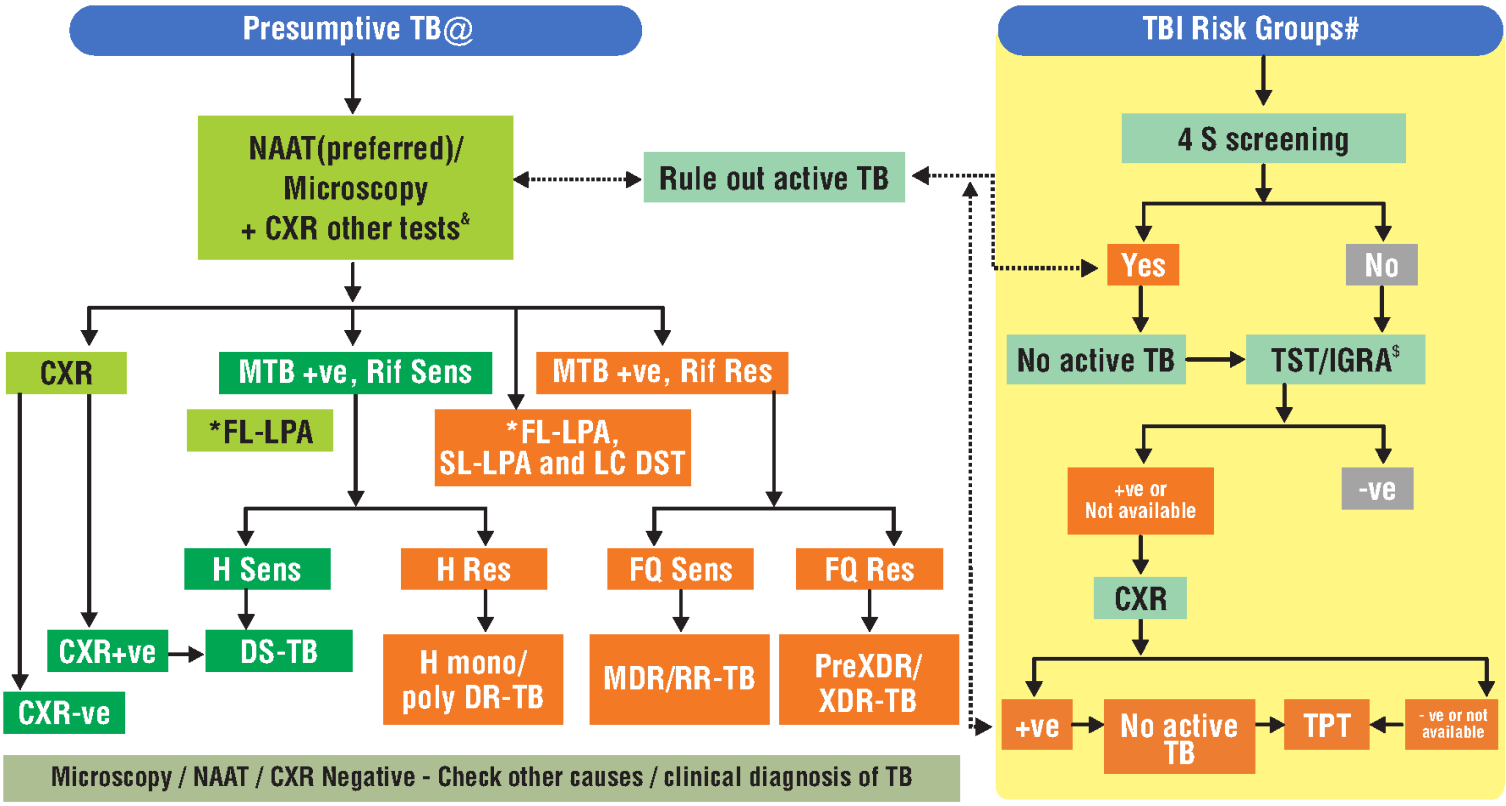
FOR FURTHER DETAILS, CONTACT:

Dr. Nita Jha
Director, Sustainable Intervention, World Health Partners
nita@whpindia.org
+91 7033095716

THEME B

SCREENING AND ACCESS TO DIAGNOSTICS

Once providers are engaged, they are encouraged to support the NTEP by adopting appropriate screening and diagnostic tests for their patients. This includes patients undergoing sputum examination and chest X-rays (CXR), both of which are cross-referenced to investigate signs of TB. Diagnosing TB, including paediatric TB and drug-resistant forms, requires collection and processing of various patient samples, all of which may prove to be costly and difficult to get done in places with inadequate diagnostic facilities. Using appropriate screening and testing tools is one of the most important methods to help detect the missing cases in a timely manner. One of the goals of the NTEP is to extend quality care to all at free/minimal cost. So, it is crucial to promote usage of appropriate diagnostic tools and methods by healthcare providers with minimal costs to the patients.



@ one or more of the following is positive-In adults, Cough > 2weeks, fever > 2 weeks, significant weight loss, night sweats, hemoptysis. In children persistent fever and/or cough > 2weeks, loss of weight/no weight gain and/or history of contact with infectious TB cases. For Extra pulmonary, presence of organ specific symptoms and signs like swelling of lymph nodes, pleural effusion, Gastro-intestinal symptoms, pain and swelling in joints, neck stiffness, disorientation etc. and/or constitutional symptoms like significant weight loss, persistent fever >2 weeks, night sweats.

& Other tests: Body fluid examinations, Histopathology (FNAC, Biopsy), Radiology (X-ray, CT Scan, MRI), USG. NAAT must be offered to all patients found positive on smear microscopy.

* LPA (First and Second Line), Liquid culture on fresh specimen and isolate for DST for Moxifloxacin, Linezolid, Pyrazinamide and in future for Clofazimine, Bedaquiline and Delamanid (further details in Guidelines for PMDT in India 2021)

PLHIV, all contacts of bacteriologically confirmed pulmonary TB index patient, other risk groups (silicosis, immuno-compromised, organ transplant, hemodialysis, anti TNF-therapy, etc).

$ For all risk groups except PLHIV, child contacts under 5 yrs.

TB Diagnostic Algorithm

Source: MoHFW, GoI

CHEST X-RAY FOR SCREENING

A patient identified as a presumptive case must undergo chest X-ray for diagnosis, as per the NTEP diagnostic guidelines.

The National TB Prevalence Survey 2019-21 also recommends using chest X-ray as a screening tool, as it helped detect **42.6%** of the TB cases in the survey, which would have otherwise been missed.

Any abnormality in the screening must be further investigated using microbiological testing methods [3].

NAAT FOR TB DIAGNOSIS

Presumptive cases of pulmonary TB are diagnosed either using sputum smear microscopy or NAAT (Nucleic Acid Amplification Test). NTEP has now prioritised upfront NAAT testing for TB diagnosis and detection of TB drug-resistance. After microbiological confirmation of TB, the patient is also offered tests to check for drug resistance, including First Line-Line Probe Assay (FL LPA) and Second Line LPA (SL LPA) to detect Rifampicin and Isoniazid resistance, and fluoroquinolone and second-line injectables resistance, respectively.

SAMPLE COLLECTION AND TRANSPORTATION

Getting a good quality sputum sample is paramount, since this affects whether the person is accurately diagnosed or not. Two sputum samples must be collected on-spot early in the morning, or at least an hour apart. The person giving the sample must be guided on how to do so – expelled from the lungs, with minimal oral material, and after rinsing the mouth. This becomes difficult in the case of paediatric patients, who have difficulty in inducing sputum. Healthcare providers must offer the option of gastric lavage, sputum induction, or bronchoalveolar lavage for presumptive paediatric TB cases – all of which are invasive tests that require infrastructure and close guidance and counselling to both the child and parent. Naturally, this process requires close inspection and handholding from the healthcare provider.

These samples must also be transported to the diagnostic centres, which involve managing the logistics system from the patients to the testing laboratories. The collection route must be predetermined, all the while ensuring that specimen samples are packaged as per bio-safety precautions, accompanied by lab request forms, recorded in lab register, and transport tracked. Once tests are completed, results must be sent to the doctors and updated on the Ni-kshay portal.

[3] Central TB Division, MoHFW, Government of India, *Training Modules (1-4) for Programme Managers and Medical Officers,* New Delhi, 2020, accessed December 3, 2022, https://tbcindia.gov.in/WriteReadData/NTEPTrainingModules1to4.pd

CASE STUDY I: Using vouchers for free chest X-rays in Maharashtra

Patient Provider Support Agencies: *ALERT India and Doctors For You*

LEARNING FROM PPIA IMPLEMENTATION FOR SUBSIDIZED TB DIAGNOSIS IN MAHARASHTRA

Maharashtra was among the three states to pilot a private sector engagement model, called the **Public Private Interface Agency (PPIA)** model, through which a diverse set of actors, such as informal providers, chemists, and laboratories were engaged. The model, successfully piloted in Patna, Mehsana, and Mumbai from 2014 to 2018, established a proof-of-concept for a non-governmental organisation to act as an interface agency between the TB programme and the providers. Initially funded by the Bill & Melinda Gates Foundation and the Government of India[4], PPIAs were engaged to provide a host of services. This included mapping and sensitisation of private providers, supporting sputum transport, providing free drug vouchers, community-level follow up for treatment adherence, and providing Information and Communications Technology (ICT) support.

The PPIA model offered diagnostic and treatment subsidies for patients to reduce out-of-pocket expenditure. The cost of services was mutually determined between NTEP and providers, which helped determine the amount to be reimbursed for services rendered.

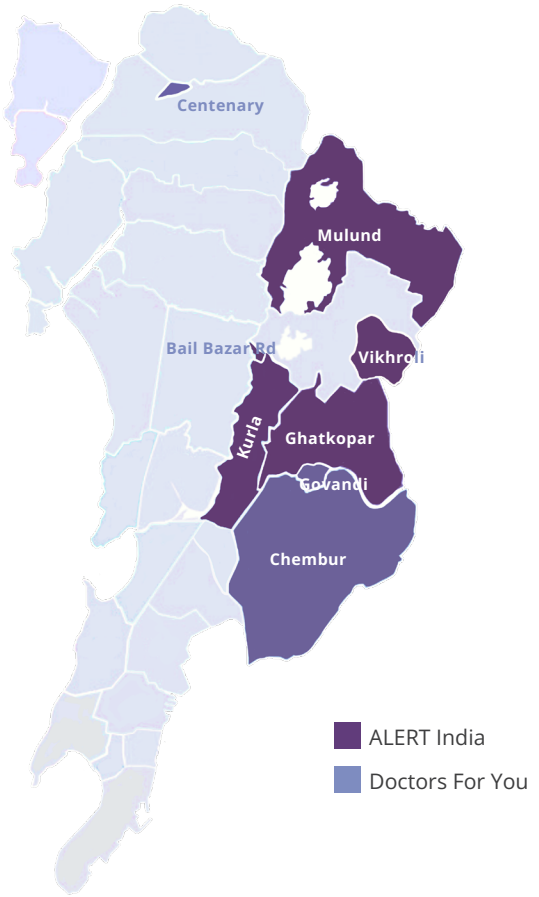
In **Mumbai,** the **e-voucher system** made it easy for the providers to refer patients for diagnostic and treatment services, track a patient in the TB care cascade, and **simplified payments and reimbursements.**

Electronic diagnostic vouchers were used for sputum microscopy, X-ray, CBNAAT or line probe assays (LPAs). A unique coded voucher would be generated by a provider for the prescribed test, which would be parallelly validated through a call centre established for voucher management. The patient would then use this voucher for diagnostic services, and the laboratory would update the call centre with the test results against each voucher. After a TB case was notified, an electronic drug voucher was generated for first-line anti-TB drugs prescription.

Vouchers are a store of value that entitles a patient to free TB-related service such as Chest X-ray (CXR), co-morbidity screening, or government approved fixed-dose combination (FDC) of TB drugs from an empanelled private provide

[4] "Public Private Interface Agency (PPIA) Accelerating TB Elimination in India through private sector engagement", PATH, accessed November 24, 2022, https://www.path.org/resources/public-private-interface-agency-ppia-accelerating-tb-elimination-india-through-private-sector-engagement/

Maharashtra - DFY & ALERT India



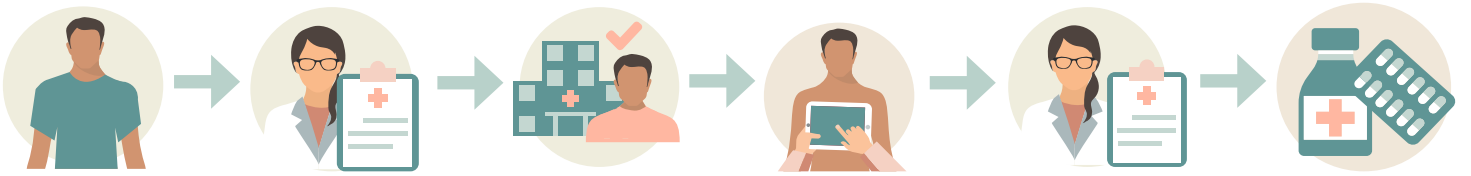
Doctors For You has been operating in three districts[5] of Maharashtra since September 2019 and has been implementing the voucher model as mandated by the Maharashtra NTEP.

Through successful outreach and sensitization, DFY has onboarded **22 X-ray labs** into the voucher system.

INSIGHTS FROM DOCTORS FOR YOU, MAHARASHTRA

Under the PPSA model currently operational in Maharashtra, presumptive TB patients are prescribed a chest X-ray for diagnosis and provided a voucher to avail free services. The patient can visit a lab already empanelled by the PPSA, and on producing the voucher, they can avail a free chest X-ray.

Once vouchers have been utilized, the PPSA agency validates its use, and generates invoices for payment. To do this, DFY agents collects the form and voucher copies on weekly, fortnightly, and monthly basis (depending on the clinics' caseload). Voucher copies from both the doctor's clinic (where voucher was generated) and the lab (where services were taken), are cross-verified and used to create a line list of all the beneficiaries. This list is prepared on a monthly basis and sent to the District TB Office (DTO). The DTO verifies the vouchers and releases the payment to the agency on a quarterly basis.

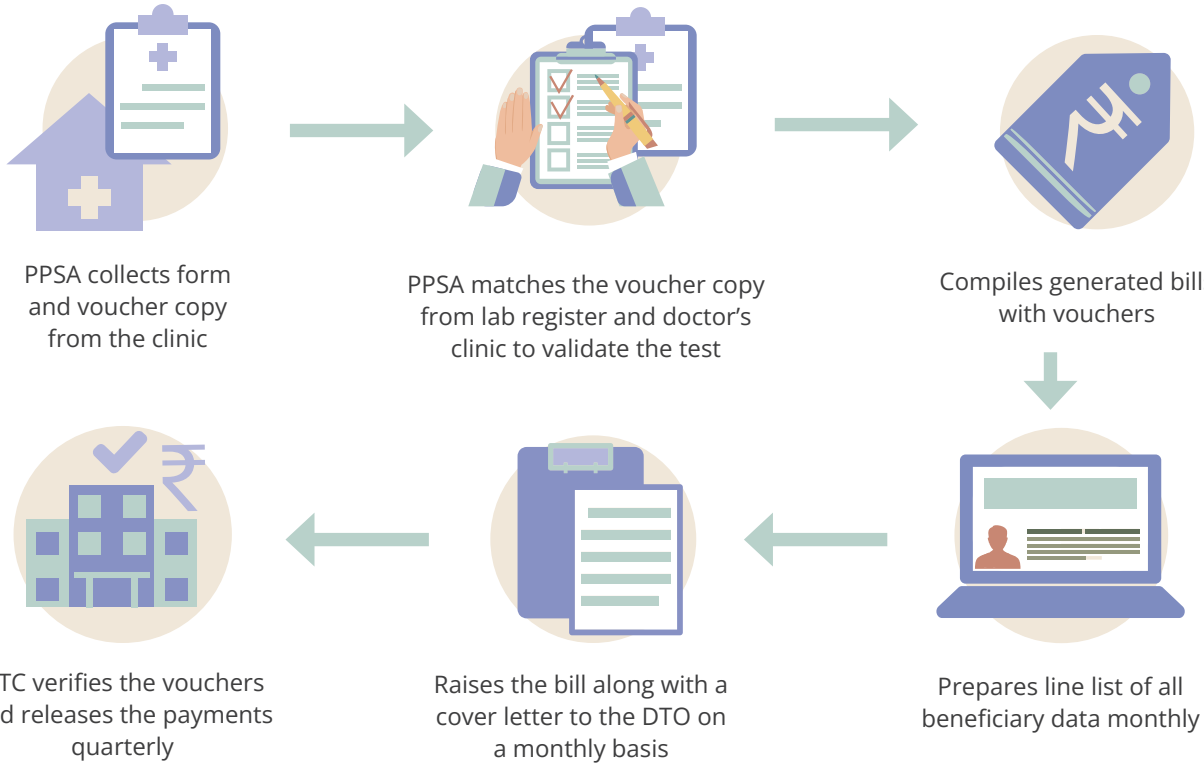


PATIENT WORKFLOW FOR AVAILING FREE CHEST X-RAY VOUCHERS

[5] Chembur, Centenary, and Govandi

NTEP REIMBURSES THE AGENCY RS 220 PER X-RAY, AND DOCTORS FOR YOU PAYS BETWEEN RS 140-200 PER TEST TO THE LABORATORY

Under this initiative, Doctors For You facilitated screening of **82-85% of all presumptive cases** using the free X-ray service, of which **25-34% were screened positive**.



VOUCHER VALIDATION AND PAYMENT PROCESS

INSIGHTS FROM ALERT INDIA, MAHARASHTRA

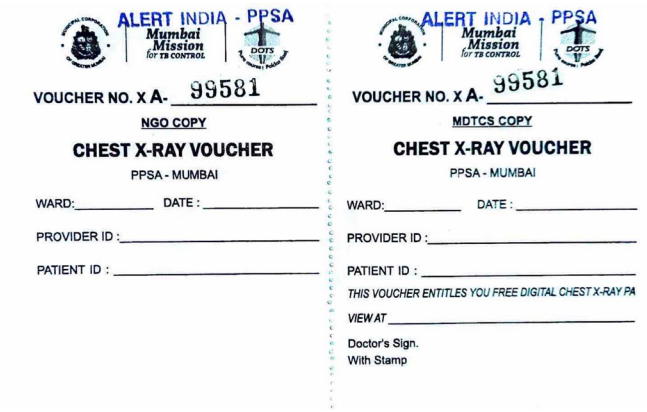
ALERT India is working across five wards of Mumbai[6], providing over **35,000 X-ray vouchers** per year for screening presumptive TB patients.

ALERT India has empanelled private labs that are close to health facilities, catering to both public and private sector patients. It provides registration forms, X-ray vouchers, and falcon tubes to the health providers, and has colour coded vouchers for patients from public and private health facilities.

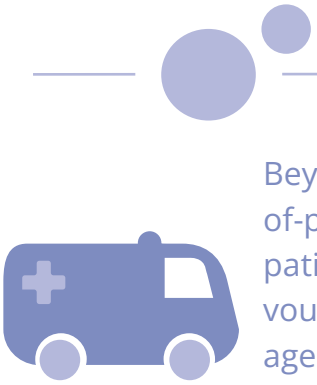
ALERT India's field staff visits the health facilities to collect the registration forms and voucher copies on a regular basis. These are

[6] Bail Bazaar Road, Kurla, Ghatkopar, Vikhroli, and Mulund

submitted to the head office for monitoring purposes. Voucher copies are also collected from labs along with invoices and are tallied with the agency's copies for validating voucher utilisation. In case of unutilised vouchers, ALERT India follows up with the providers to ensure the patients are referred for free testing. Following validation by the PPSA, an amount of Rs 300 is reimbursed to the provider.


ALERT INDIA - PPSA
Mumbai Mission for TB CONTROL
DOTS
VOUCHER NO. X A- 99581
NGO COPY
CHEST X-RAY VOUCHER
PPSA - MUMBAI
WARD: DATE :
PROVIDER ID :
PATIENT ID :
ALERT INDIA - PPSA
Mumbai Mission for TB CONTROL
DOTS
VOUCHER NO. X A- 99581
MDTCS COPY
CHEST X-RAY VOUCHER
PPSA - MUMBAI
WARD: DATE :
PROVIDER ID :
PATIENT ID :
THIS VOUCHER ENTITLES YOU FREE DIGITAL CHEST X-RAY PA
VIEW AT
Doctor's Sign.
With Stamp

Vouchers for Free Chest X-ray



Beyond reduction in out-of-pocket expenditure of patients, the colour coded vouchers also help the agency **track the uptake of services** in the public and private health care system.

This tracking has been found to be easier for the public facilities as the providers capture all patient details. ALERT India follows up with patients in the private sector to understand why they didn't utilise their vouchers and also ensure high uptake of issued vouchers leading to high proportion of patients getting chest X-rays done. Data from their operations show the voucher utilisation to be higher in public facilities as compared to the private providers.

BEST PRACTICES

- Consider the introduction of mechanisms that reduce out-of-pocket expenditure for patients. As documented here, providing vouchers to patients for free chest X-rays makes private sector healthcare more affordable. It also helps state/district NTEP track the screening status of presumptive TB patients and appropriately refer patients for further diagnostic investigations

- To increase chances of early diagnosis, diagnostic services must be made accessible and affordable to patients. By providing chest X-ray vouchers to patients - redeemable at a lab in proximity of a health facility, agencies increased the likelihood of the patient going for testing

FOR FURTHER DETAILS, CONTACT:

Ms. Prabha Mahesh
Director, Health Projects, ALERT India
alertprabha@gmail.com
+91 9819042375

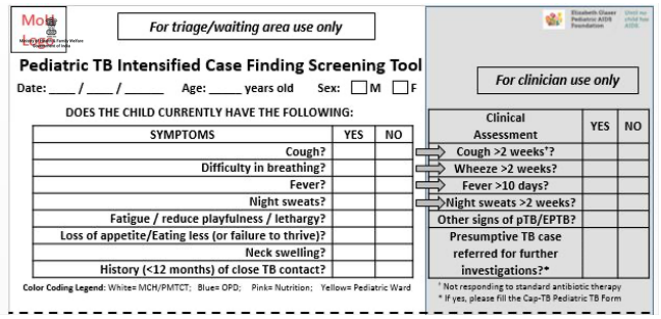
Dr. Vaishali Venu
Director, Health and Nutrition, Doctors For You
vaishali.venu@doctorsforyou.org
+91 9821503378

CASE STUDY II: Working with high-load paediatric OPDs for increased CXR screening and sample collection

Catalyzing Paediatric TB Innovations (CaP TB)

Paediatric TB care is an area of TB care that is often neglected. There is an estimated 56% gap in notifications in the 0-14 years age group[7] , with over a 70% gap in the under-five age group[8] . One of the challenges faced relates to symptom recognition by caregivers - TB symptoms among children are often confused with pneumonia, allergies, asthma, and others. Even when referred for testing, sample collection (through gastric lavage, lumbar puncture, and pleural tap) is invasive, and therefore, distressing for both the child and their parent. Carrying out these procedures also requires thorough training, both in terms of technical processes, as well as appropriate counselling for the child and their parent.

Reaching a microbiological confirmation for TB in paediatric cases is a challenge that can be addressed through appropriate technical and counselling training. The CaP TB intervention, with funding support from Unitaid and EGPAF, introduced appropriate solutions to meet this gap, as they covered the paediatric TB care cascade across 15 districts in three states.



For triage/waiting area use only

Pediatric TB Intensified Case Finding Screening Tool

Date: ___/___/_____ Age: ____ years old Sex: ☐M ☐F

DOES THE CHILD CURRENTLY HAVE THE FOLLOWING:

SYMPTOMS	YES	NO
Cough?		
Difficulty in breathing?		
Fever?		
Night sweats?		
Fatigue / reduce playfulness / lethargy?		
Loss of appetite/Eating less (or failure to thrive)?		
Neck swelling?		
History (<12 months) of close TB contact?		

Color Coding Legend: White= MCH/PMTCT; Blue= OPD; Pink= Nutrition; Yellow= Pediatric Ward

For clinician use only

Clinical Assessment	YES	NO
Cough >2 weeks*?		
Wheeze >2 weeks?		
Fever >10 days?		
Night sweats >2 weeks?		
Other signs of pTB/EPTB?		
Presumptive TB case referred for further investigations?*		

* Not responding to standard antibiotic therapy
* If yes, please fill the Cap-TB Pediatric TB Form

Intensified Case Finding Screening Tool used by hospital staff at high-load Paediatric TB OPDs

To carry out sample collection, the intervention identified a total of 82 high-load paediatric OPDs that were either already carrying out sample collection procedures or were willing to do so. Providers were sensitized to screen for TB using an intensified case finding screening tool.

Those children who are presumed with TB were further investigated with chest X-rays during the same visit to reduce time delays in diagnosis and lost to follow-ups. To support this, a flowchart displaying referral to CXR and further testing (called paediatric TB diagnostic algorithm developed by the NTEP) was displayed at the OPD.

This process led to an increase in CXR uptake, from **65% in Q3 2019** to **90% in Q2 2021** across 82 study sites.

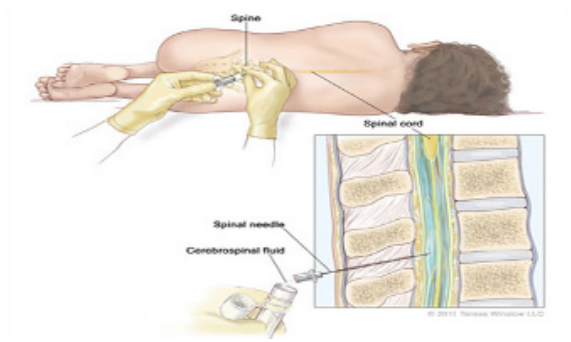
If CXR abnormalities are noticed, providers and field officers motivate parents to undertake sample collection at the earliest.

[7] Central TB Division, MoHFW, Government of India, India TB Report 2022, New Delhi, 2022, accessed on November 15, 2022, https://tbcindia.gov.in/WriteReadData/IndiaTBReport2022/TBAnnaulReport2022.pdf

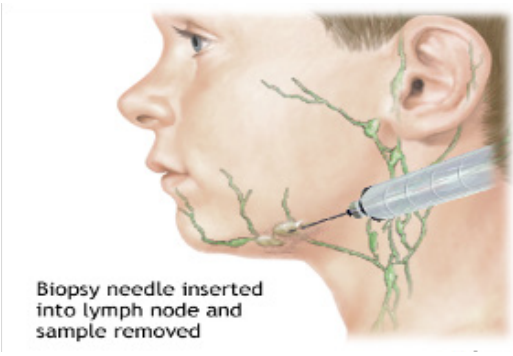
[8] World Health Organisation, Global Tuberculosis Report 2022, Geneva, 2022, accessed November 24, 2022, https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2022

Gastric Lavage

Induced Septum



Lumbar Puncture



Lymph Node FNAC/ Aspirate

Types of paediatric TB sample collection procedures offered under CaP TB study sites

The private providers and agency staff counsel the families about the importance of **early diagnosis** and the **free-of-cost sample collection and testing**, thereby alleviating their worries about high out-of-pocket expenditure.

Findings from the study suggest that samples of 53% of all presumed paediatric TB cases were collected at the study sites. The study also saw an increase in the number of sites that conducted pulmonary sample collection, from 34 sites at the start of the intervention to 53 sites.

Overall, **20%** of all paediatric TB cases were diagnosed microbiologically, and **80%** clinically.

BEST PRACTICES

- Agencies can work with high-patient load paediatric OPDs to identify patients at the time that they first approach their providers. Working with hospital staff for intensified case finding (through easy-to-use screening tools) helped the agency to identify presumptive TB cases and report cases in real-time. Furthermore, the tracking of presumptive TB along with financial support avoided delays in diagnosis

- Partnering with pathologists that have linkages with high-load paediatric sites enables free-of-cost pulmonary and extra-pulmonary (lymph node) sample collection, thereby reducing out-of-pocket expenditure for patients

FOR FURTHER DETAILS, CONTACT:

Dr. Sathish Kumar
Country Director, SAATHII
drsathish3@saathii.org
+91 9380570554

Ms. Anamika Lahiri
Research and Documentation Manager, SAATHII
anamika@saathii.org
+91 9999767673

CASE STUDY III: Bringing innovative approaches to expedite drug-susceptibility testing

Offering Drug Susceptibility Testing (DST) to all presumptive TB cases is important. It helps determine if there is any form of resistance to TB treatment drugs, and therefore, to determine the course of treatment. To ensure that drug resistance is recognized at the earliest, the NTEP has prioritized replacing smear microscopy with NAAT testing, as well as offering upfront NAAT testing for all presumptive TB cases. This allows for results that are faster, and more accurate. To achieve this goal, the NTEP is working towards enabling Universal DST (UDST) across all districts in India.

However, the pandemic led to short-term programmatic challenges in ensuring widescale drug susceptibility testing for TB with the NTEP's diagnostic services being repurposed toward the COVID-19 response. As a result, NAAT machines, as well as the designated lab technicians, under the NTEP were brought in to respond to high demands for COVID testing. This created a gap in the number of presumptive TB samples that could be processed. Several PPSAs also cited short-term challenges in availability of lab consumables (because of procurement challenges faced by states), and labs reported mechanical breakdowns of NAAT machines. PPSAs took several initiatives to address the infrastructure and human resource challenges. Some innovative practices, applicable beyond the COVID-19 scenario, are discussed below.

THE CARTRIDGE SHARING MODEL

As part of their support to the NTEP, ALERT India was engaged to enhance UDST in the five wards of Mumbai using upfront GeneXpert, a CBNAAT (Cartridge Based Nucleic Acid Amplification Test) diagnostic test for TB. While there were enough cartridges, the availability of CBNAAT machines was low in the region. Owing to this, the programme was unable to process all samples and report results in a timely manner.

ALERT India came up with an innovative solution: cartridge sharing with local private diagnostic labs. Under this model, **private labs are provided cartridges** to run the tests and are **paid per test** to cover the overheads and maintenance charges at the labs.

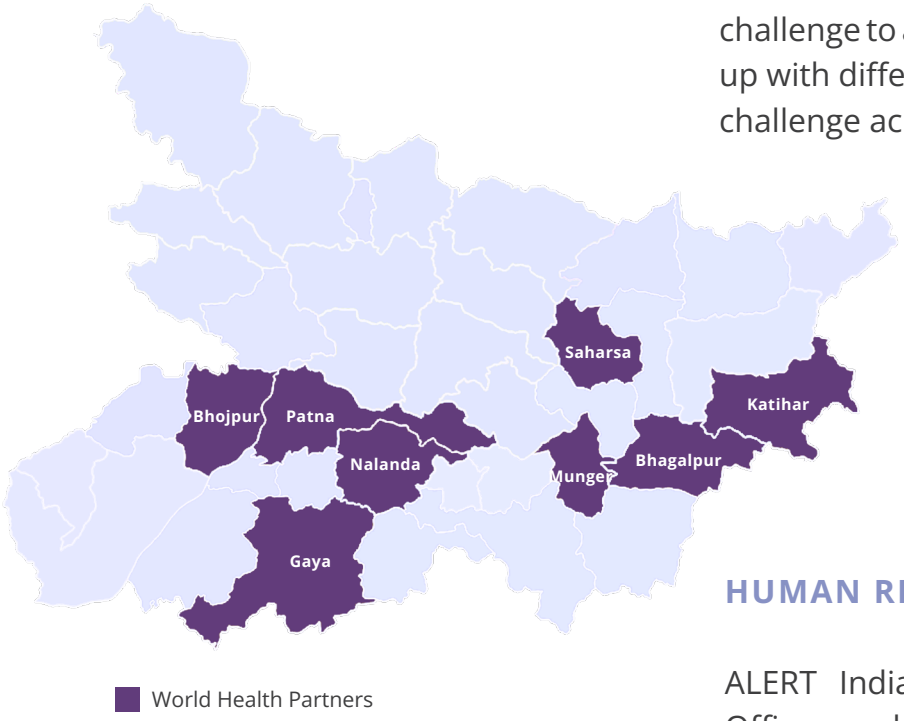
In this case, ALERT India explored a partnership with Johnson & Johnson under their CSR initiative to support cartridge sharing with three private labs. Under the agreement, the company reimbursed costs of diagnosis for 6,000 patients in a six-month

As a result of this initiative, DST coverage increased from **59% a year prior** to operations to **77% and 51% in 2020 and 2021**. As of August 2022, **68%** of the presumptive/diagnosed TB cases underwent UDST.

SETTING UP ADDITIONAL DIAGNOSTIC LABS

To conduct additional tests, World Health Partners established a lab with five CBNAAT and TrueNat machines in Patna in 2020. The equipment was leveraged from donors or partners and NAAT cartridges were provided by the NTEP. Besides this, WHP also hired two trained technicians to run the operations. The lab processes samples not just from Patna, but other nearby districts too. Depending on the sample load, the lab expands its operations to include night shifts as well.

Bihar - World Health Partners



As of May 2022, World Health Partners' in-house lab processed **21,037 samples** and contributed to **55% of the UDST figures** in the region. Owing to their operations, **3,919 TB cases** have been detected from June 2020 to May 2022.

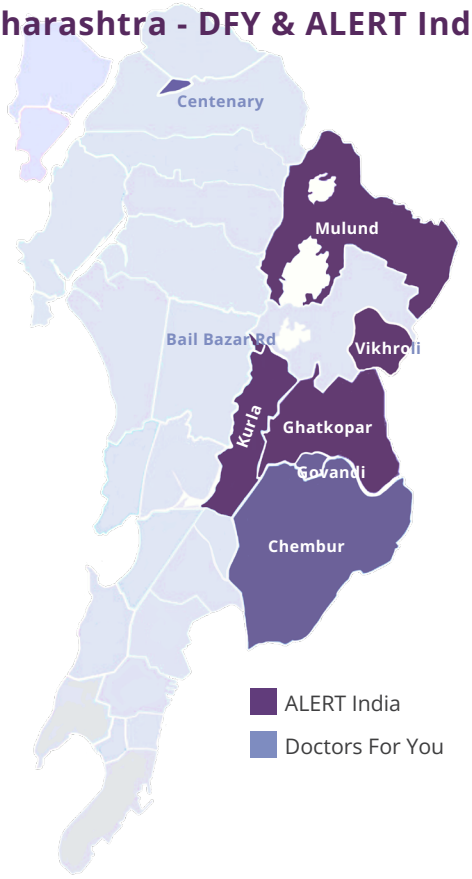
World Health Partners' in-house lab

Apart from the infrastructure-related roadblocks, lack of trained lab personnel to conduct the testing was yet another challenge to achieving UDST. The PPSAs came up with different strategies to overcome this challenge across geographies.

HUMAN RESOURCE MANAGEMENT

ALERT India advocated with the City TB Officer and respective District TB Officers for flexibility in transporting and processing samples at the CBNAAT sites. During the pandemic, the NAAT machines were utilised for both COVID-19 and TB testing, and this led to a delay in processing samples. Utilising the existing resources in an optimal manner, the agency planned to process samples during slots when the machines were available.

Maharashtra - DFY & ALERT India



To address the backlog of samples to be processed, **ALERT India** engaged trained lab technicians to conduct tests during available slots in the labs – at night. The agency discovered that an **additional 48 samples** could be tested if the operations continued round-the-clock.

In Bihar, UDST rates from June 2021 to March 2022 were affected due to a shortage of cartridges and diversion of NTEP personnel toward state election duties. Doctors For You hired additional lab technicians and trained them to conduct NAAT testing to process the samples collected for TB diagnosis in the eleven districts[9] of operation. The agency hired 13 lab technicians and deployed them in these districts to reduce the excessive burden on the public lab technicians. The newly trained personnel were placed at the DTC and block level.

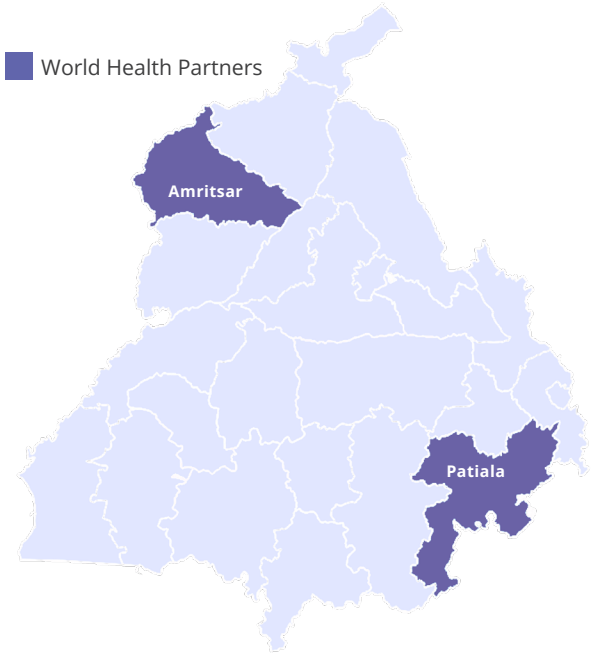
ADVOCACY WITH THE ADMINISTRATION

PPSAs have often encountered resistance from public labs in processing private patient samples. Given the shortage of machines and cartridges, the public labs prioritise testing of samples collected from public sector facilities.

In Punjab, World Health Partners approached the state and district administration to address this challenge. They secured an advisory from the authorities that instructs public labs to test the samples collected from private facilities as well.

As a result, the agency was able to increase UDST threefold, from **661 in 2021** to **1,814 in 2022** in Amritsar and Patiala.

Punjab - World Health Partners



[9] Begusarai, Siwan, Samastipur, Paschim Champaran, Gopalganj, Vaishali, Darbangha, Madhubani, Muzzafarpur, Sitamarhi, and Purba Champaran

BEST PRACTICES

- To address the UDST challenges, the following innovations may be considered:
  - Cartridge-sharing model: As demonstrated by ALERT India, agencies can identify and rally various ecosystem stakeholders, including the TB programme, private labs, and a pharma company to solve the issue of CBNAAT machine shortage and continue progress towards the UDST goal
  - Human resource solutions: To address the shortage of human resources and testing equipment for conducting UDST, agencies can deploy trained lab technicians in the public health facilities as well as onboard additional personnel to conduct tests during the night shift, especially during a public health emergency with increased strain on available resources
- Seeking support of the local administration and leaders can help solve systemic challenges to the TB programme, such as processing of samples from private labs in the public sector facilities

FOR FURTHER DETAILS, CONTACT:

Ms. Prabha Mahesh
Director, Health Projects, ALERT India
alertprabha@gmail.com
+91 9819042375

Dr. Vaishali Venu
Director, Health and Nutrition, Doctors For You
vaishali.venu@doctorsforyou.org
+91 9821503378

Dr. Nita Jha
Director, Sustainable Interventions, World Health Partners, Bihar
nita@whpindia.org
+91 7033095716

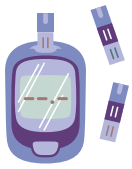
CASE STUDY IV: Providing support for co-morbidity screening

In addition to providing TB diagnosis support, PPSAs assist the NTEP with screening co-morbidities - Diabetes Mellitus (DM) and Human Immunodeficiency Virus (HIV) for those presumed with TB. Early detection of HIV and DM among those living with TB can help save lives through timely intervention. Of the two co-morbidities, HIV testing can be particularly challenging for the programme given the stigma around the disease.

According to the NTEP diagnostic guidelines, all presumptive and diagnosed TB cases must be offered HIV counselling and testing as per the norms and standard operating procedures of the National AIDS Control Organization (NACO). In the provider-initiated testing & counselling (PITC) procedure, healthcare workers give patients basic information about HIV, the testing procedure and the benefits of early diagnosis and interventions. Healthcare providers also counsel patients on the potential risk of discrimination and reassure them of recovery and support. Presumptive or diagnosed TB patients are tested for HIV using the Whole Blood Finger Prick Test kits. If the test result is 'reactive', the patient is directed to the nearest Stand Alone-Integrated Counselling & Testing Centre (SA-ICTC) for confirmation of the test diagnosis. NACP has recommended provider-initiated HIV screenings at all DMCs under the NTEP.
During their operations, agencies discovered that private healthcare providers did not always prescribe HIV and DM testing to the patients, despite the NTEP guidelines. This was either because the providers weren't aware of the protocol, or that such screenings were considered irrelevant by them. Social stigma around HIV in communities also compounds the challenge -- many patients are unwilling to undergo HIV testing.

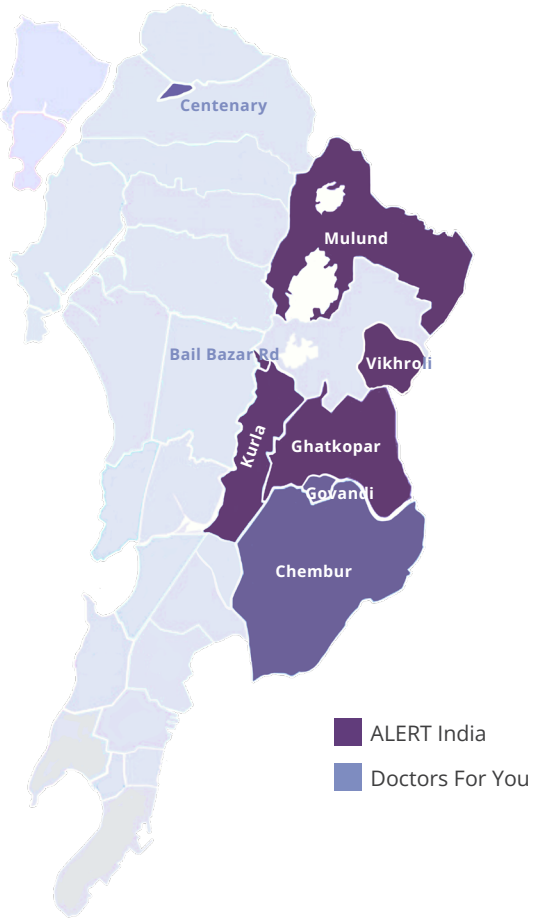
INSIGHTS FROM ALERT INDIA, MAHARASHTRA

The target achievement of DM and HIV screenings for the year prior to operationalisation of PPIA was 61% and 54% in the five wards of Mumbai. With support from the District TB Office, ALERT India sensitised providers to prescribe HIV and DM testing to the patients. They also offered counselling support to the patients to motivate them to undergo HIV and DM testing. The agency has dedicated staff members to provide support for co-morbidity screening. Since there is social stigma against HIV, ALERT India provided a mechanism for community support to the patients through involvement of cured patients as peers and champions. These champions play a crucial role to fight the social stigma not just against the disease, but also the patients. Due to the sustained programme sensitisation and engagement with the private providers, the agency had a tie up with select few hospitals to offer screenings at a discounted rate to the patients.



With these interventions, the **DM and HIV testing** in the five wards of Mumbai has increased to **94% and 97%** respectively.

Maharashtra - DFY & ALERT India



HOME SCREENINGS BY DOCTORS FOR YOU

Some PPSAs such as Doctors For You have trained their staff to conduct free co-morbidity screenings for patients. Their community field representatives offer screenings to the patients during home visits, ensuring the tests are conducted and effectively reducing cost to patients at settings which are appropriate and both, acceptable and convenient to them. For quality control purposes, the agency conducts regular monitoring and follow-up testing in case of a positive screening result for HIV.

Upon testing positive for co-morbidities, agencies offer counselling support to the patients and their families, and inform them about the available interventions. PPSAs refer all people diagnosed with HIV to a public health facility for anti-retroviral therapy, and for DM treatment, patients either visit the private or the public health facilities.

Additionally, private providers such as **chemists of leading practitioners and private labs** have been engaged to refer patients (Rs 120 per test by World Health Partners) and provide free HIV and DM testing.

ALERT INDIA	Worked with providers to ensure HIV and DM testing, while also providing counselling support to encourage patients to undergo testing
DOCTORS FOR YOU	Provided free home screenings to patients through their trained staff
WORLD HEALTH PARTNERS	Engaged private chemists and labs to refer patients and do free testing

BEST PRACTICES

- To reduce the financial burden on patients, agencies can offer co-morbidity screenings to patients at home/community settings. Free-of-cost screening provided by Doctors For You to patients at their homes averted their travel costs
- Maintaining good rapport with private providers through regular sensitisation can have multi-fold advantages such as discounted screening tests for patients
- There is immense value in engaging cured patients as champions and peers for sensitising communities about diseases. They can spread awareness on the diseases, help fight the social stigma, encourage people to get screened for co-morbidities such as HIV, and highlight the support required by the patient undergoing treatment

FOR FURTHER DETAILS, CONTACT:

Ms. Prabha Mahesh
Director, Health Projects, ALERT India
alertprabha@gmail.com
+91 9819042375

Dr. Vaishali Venu
Director, Health and Nutrition, Doctors For You
vaishali.venu@doctorsforyou.org
+91 9821503378

Dr.Nita Jha
Director, Sustainable Interventions, World Health Partners, Bihar
nita@whpindia.org
+91 7033095716

THEME C

ACCESS TO TREATMENT

The NTEP has ensured the provision of free treatment for all patients, including those seeking care in the private sector. In 2017, India moved from the intermittent to the daily drug regimen and now provides Fixed Dose Combinations (FDCs) which are a combination of 2 or more drugs. FDC treatments are simple to adhere to – they have fewer tablets, which makes it easier for patients to take, and easier for health workers to handle distribution. FDC also reduces the likelihood of misuse of single drugs, and since they're easier to consume, it also lowers the risk of drug resistance due to non-adherence. For patients seeking care in the private sector, FDC can be given to the patient either through the PPSA's field staff, or at the PPSA-identified chemist or provider. The provision of free drugs through such a mechanism helps reduce out-of-pocket expenditure for patients.

As part of their engagement strategy, the PPSAs must first market and create a buy-in among providers to facilitate the uptake of government FDCs. They must also design and manage the supply chain management and logistics system, through which the drugs are to be ordered, stored, transported to the distribution centre, and finally, distributed to the patients. All drug orders are placed through the Central TB Division's drug management system called *Ni-kshay Aushadi*. Providers or PPSA staff submit their drug request to the NTEP through *Ni-kshay Aushadi*, or in some places, NTEP staff place orders on their behalf. Once FDC is given to providers, an FDC register is maintained by the PPSA staff. The provider also maintains a record of distribution of drugs to patients in *Ni-kshay Aushadi* and their register to be shared with the PPSA and NTEP for verification purposes.

FDC can be stored at the provider's location, or even stocked at a locally-convenient place of distribution – different states and districts have implemented various mechanisms, based on their local contexts. Prescriptions are usually made by private providers to patients on a monthly basis, and patients receive their medication either from provider's clinic, at a nearby chemist, or through home delivery.

CASE STUDY I: Employing a resource-light model for home delivery of drugs

Organisations: *William J. Clinton Foundation and Tata 1mg*

In many cases, Community Based Organisations (CBOs) act as PPSAs because of their long-standing expertise in the domain. These agencies are engaged in an output-based contracting model and are reimbursed for their services after due verification by the programme team. However, their functioning as non-profit organizations leads to resource constraints and affects programme implementation. In some cases, they may lack the technical capacity to develop tools and processes like automated delivery scheduling and route planning for efficient and transparent drug delivery. Delay in payment by the programme may worsen the CBO's predicament and affect TB service delivery.

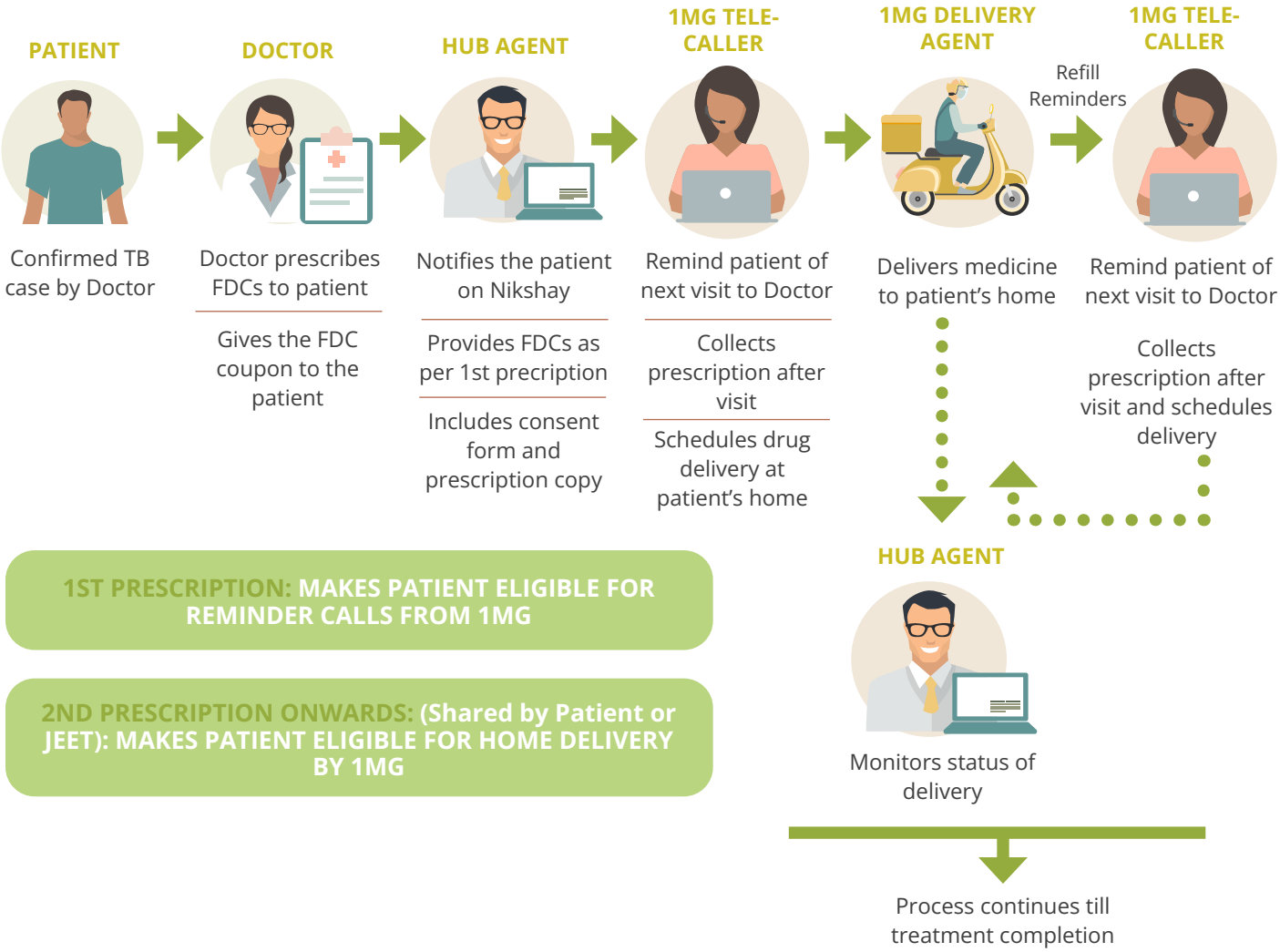
Over the recent years, several for-profit organisations have been established that provide an array of at-home services backed by specialisation in inventory and logistics management. In the healthcare sector, many private organisations like Tata 1mg and Apollo offer online doctor consultations, and at-home diagnostics and pharmaceutical services. Given their working model, they can cater to demands for a wider range of services and at a bigger scale as compared to CBOs.

The William J. Clinton Foundation tested a private sector engagement model through a pilot in New Delhi, Ahmedabad, and Surat (2020-21) by partnering with Tata 1mg in a pay-per-service model. As the implementation partner, Tata 1mg undertook drug delivery and monitoring treatment adherence among patients seeking healthcare in the private sector.

THIS MODEL FOCUSED ON TWO PILLARS FOR TREATMENT:

DELIVERY OF FDCS AT PATIENTS' DOORSTEP

MONITORING THEIR DRUG REFILL REQUIREMENT



FDC DELIVERY AND TREATMENT ADHERENCE THROUGH TATA 1MG

Under the model, doctors would prescribe free-of-cost government FDC for TB treatment. The prescription would be accompanied by a coupon for free FDC, which could be availed either through a compounder or a hub agent (Tata 1mg's field staff) sitting out of the high-notifying private provider's clinic. The agent (or the compounder) would enter patient and prescription details in the *Ni-kshay* portal and provide the first set of FDCs to the patient. They would also explain the benefits of the follow-up pilot (including the home delivery) to the patient and seek their written consent to participate in it. If the patient opted out of the pilot, they could simply collect the next dosage from the doctor's clinic after a month. However, if the patient was comfortable with home delivery, their prescription details would be shared with a telecaller from Tata 1mg for subsequent FDC home deliveries.

The telecaller would remind the patient of their follow-up appointment with the doctor and afterwards seek prescription details from the patient or JEET programme team. For the home delivery of drugs, the telecaller would confirm the logistics including the date, time, and address with the patient. They would then schedule the delivery through the system and assign an agent for the same The delivery agent would collect the drugs from a Tata 1mg storage facility and hand them over to the patient at their home or any other preferred location. Meanwhile, the hub agent would check in with the delivery agent to monitor the drug delivery status. This process (scheduling of the home delivery of FDCs and monitoring the refill requirements of the patients) would be repeated until the TB treatment was successfully completed.

Though this intervention, **William J. Clinton Foundation** and **Tata 1mg** managed to increase the FDC uptake in Ahmedabad from **1% in 2018** to **49% in 2021** and by **23 percentage points** in Delhi over the same period.

Moreover, it was reported that **81% drug deliveries** were made within **24 hours** of the request by the **Tata 1mg team**, and this led to high patient convenience.

The home delivery of free FDCs by Tata 1mg led to increased access to drugs and a reduction in out-of-pocket expenses of the patients. Given the drug refill monitoring and regular follow ups with patients, the pilot reported higher treatment adherence and success rates.

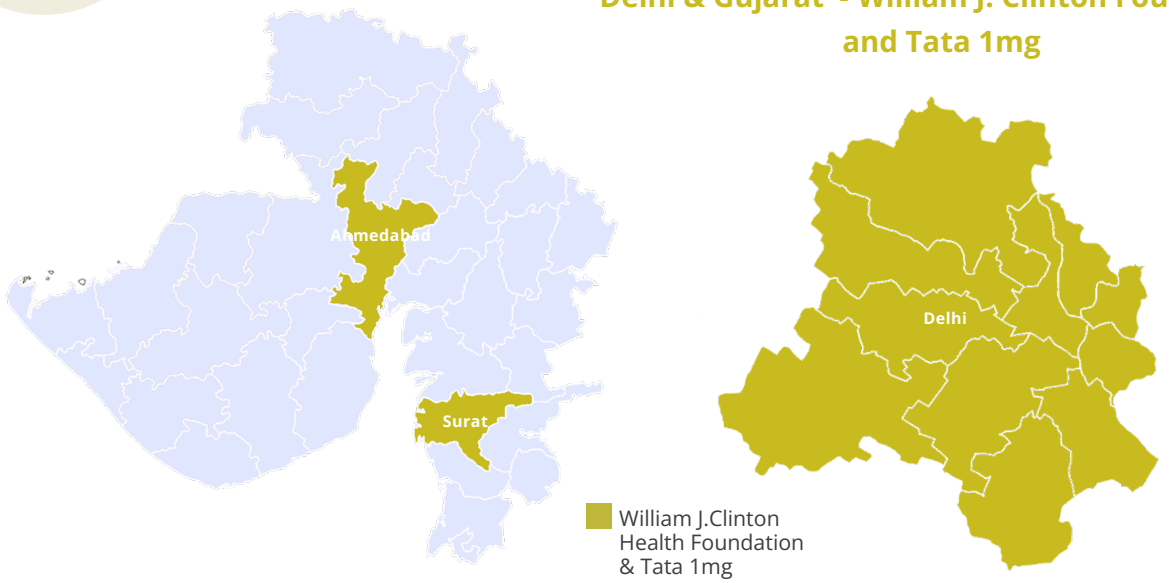
This pilot demonstrates an alternate model for TB service delivery whereby a for-profit organisation with an established network and resources can be involved on a pay-per-service model instead of a typical CBO with full-time employees. The outcome-linked payment model proved to be resource-light and more cost-effective.

Treatment success rate of patients notified in **quarter 3 and 4** of **2020** was

96% **in Ahmedabad**

95% **in Surat**

Delhi & Gujarat - William J. Clinton Foundation and Tata 1mg



BEST PRACTICES

- Delivering drugs at the patients' doorstep is convenient for them and reduces their out-of-pocket expenditure.
- Agencies must incorporate consistent treatment monitoring within their implementing models. By sending reminders for doctor visits and delivering drugs at the patient's doorstep, the organisations increased patient adherence to treatment
- In certain settings, engaging e-commerce organisations with good inventory and logistics management proves to be a good alternative to contracting CBOs as PPSAs

FOR FURTHER DETAILS, CONTACT:

Dr. Shamim Mannan
Project Director, William J Clinton Foundation/Clinton Health Access Initiative
smannan@clintonhealthaccess.org
+91 9934317447

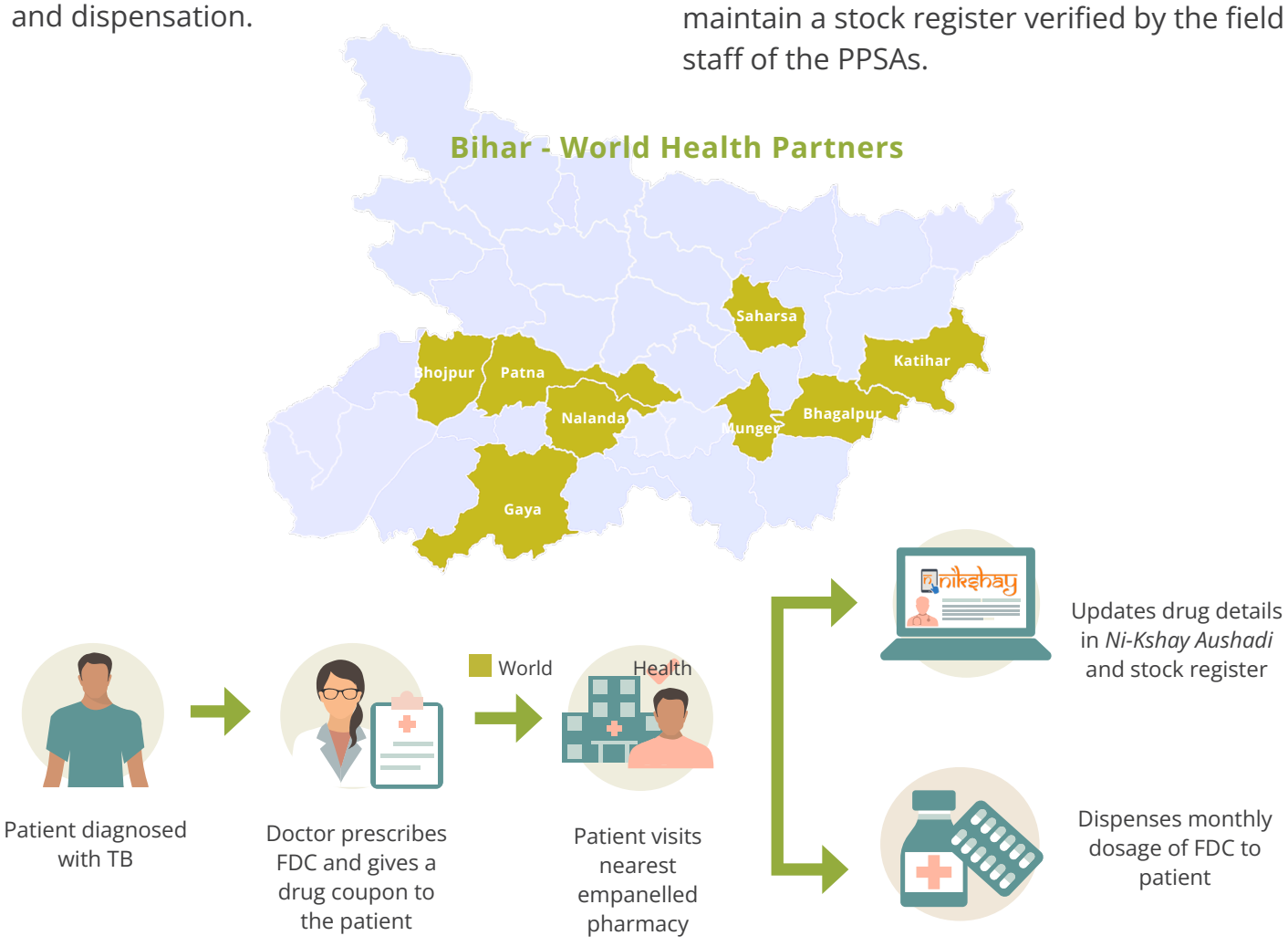
CASE STUDY II: Engaging pharmacies for greater FDC uptake

Patient Provider Support Agencies: *Maharashtra Janavikas Kendra (MJK) and World Health Partners (WHP)*

Pharmacies can be crucial for dispensing FDCs to the private sector patients who are unwilling or unable to go to government centres for medicines. For FDC uptake, the first step is regular sensitisation and engagement with doctors, so they understand the advantages of the FDC drugs and prescribe them to their patients. Sensitising and engaging chemists close to prominent private providers and hospitals has been a key strategy used by the PPSAs. Pharmacies are engaged for FDC storage and dispensation.

USE OF VOUCHERS

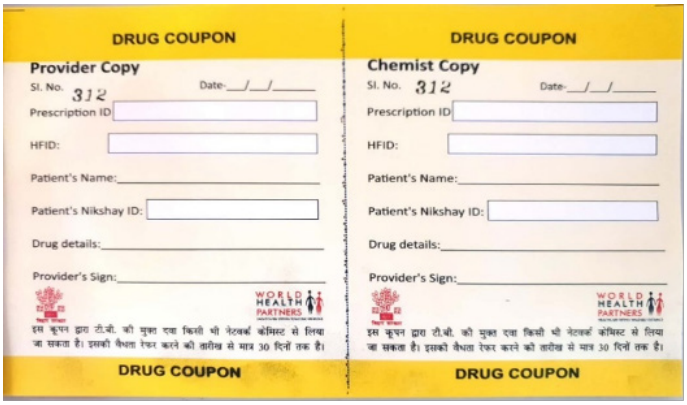
After a patient is diagnosed with TB, doctor generates a drug coupon at their clinic that the patient can use to avail free-of-cost government FDCs. For ease of access, nearby pharmacies are empanelled into the programme by the PPSAs. The patient visits the pharmacy and on producing the drug coupon, they are provided their monthly FDC. Pharmacies are expected to record the FDC dispensation in *Ni-kshay Aushadi* and maintain a stock register verified by the field staff of the PPSAs.



GOVERNMENT FDC MANAGEMENT

World Health Partners (WHP) has been able to increase FDC uptake in 8 districts[10] of Bihar from **30% to 59%** over a period of **two years** from June 2020 to May 2022.

It has sensitised and onboarded 276 pharmacies across the 8 districts and provides an incentive of Rs 30 per patient to the chemist for stocking and dispensing FDC for a month. WHP has its own warehouse to stock the FDCs which are routinely distributed by their field officers to pharmacies.



FDC COUPON

DISTRICT	2021	2022
Bhagalpur	40%	38%
Bhojpur	34%	30%
Gaya	36%	32%
Katihar	59%	92%
Munger	21%	50%
Nalanda	19%	23%
Patna	58%	64%
Saharsa	24%	53%

As can be seen from the data presented in the table above, District Katihar registered a 33-percentage point increase over a year, and Munger and Saharsa had a 29-percentage increase in FDC uptake over the same period.

[10] Bhagalpur, Bhojpur, Gaya, Katihar, Munger, Nalanda, Patna, and Saharsa

FDC UPTAKE IN EIGHT DISTRICTS OF BIHAR

ADVOCACY WITH THE FDA COMMISSIONER

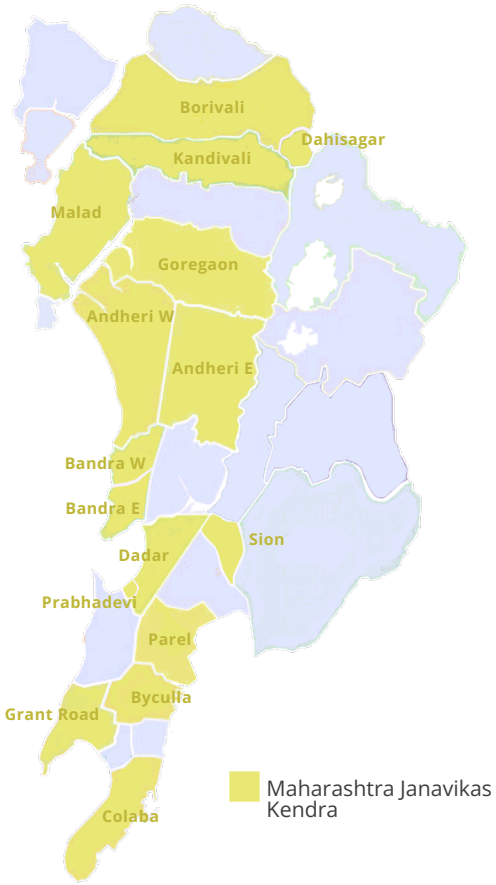
As was the case for Bihar, the PPSA in Mumbai - Maharashtra Janvikas Kendra (MJK), sensitised the doctors to prescribe FDCs to their patients for treatment. Here, the patient is issued a treatment card and an issue note to avail the free drugs from a chemist in proximity to the doctor's clinic. However, unlike Bihar, chemists in Mumbai require Food and Drug Administration's approval for stocking FDCs. Obtaining an FDA certificate can be tedious, and this would make chemists reluctant to participate in the FDC stocking and dispensation component of the programme.

MJK advocated to the FDA Commissioner to approve FDC stocking with chemists. It was successful, and as a result, **89 out of the 319 chemists** in the region have been onboarded for FDC dispensation.

After a patient receives drugs, they sign an issue note to acknowledge the same. The chemists are also required to maintain a register with FDC stock records verified by the PPSA on a monthly basis.

As a result of this intervention, the FDC uptake increased from **6% in 2016** to **58% in 2022** across their operational regions in Mumbai.

Maharashtra - Maharashtra Janavikars Kendra



BEST PRACTICES

- Agencies must undertake regular sensitisation and engagement with pharmacies to encourage them to stock and dispense government FDC. Providing incentives would garner stronger support to participate and further programmatic priorities such as reduced out-of-pocket expenditure for patients.
- If there are systemic challenges, agencies may approach and advocate with relevant stakeholders (the FDA commissioner in this case) to solve them and make progress towards the programme targets
- Making government approved free drugs available to patients at pharmacies close to the doctors' clinic increases their access to the treatment, reduces their out-of-pocket expenditure, and hence increases their treatment adherence

FOR FURTHER DETAILS, CONTACT:

Dr. Nita Jha
Director, Sustainable Interventions, World Health Partners, Bihar
nita@whpindia.org
+91 7033095716

Mr. Akbar Ali Sayyad
Director, Maharashtra Janavikas Kendra
mjkdilly@yahoo.com
+91 9821460039

THEME D

PATIENT ADHERENCE AND SOCIAL SUPPORT

After a patient has been diagnosed and prescribed TB treatment, adherence to treatment is of paramount importance. Treatment adherence, however, is more complicated than mere accessibility to the drugs. Treatment completion and its outcome is also affected by a patient's ability to regularly take their medication. The drugs currently available in the market for drug resistant TB, for example, can involve patients taking multiple pills daily for a period of 9-24 months, and can have adverse side effects such as severe nausea, weakness, and abdominal tenderness. This is also affected by a patient's nutritional status. Undernutrition can further complicate recovery from the disease as nutrition and TB have a bidirectional relationship. Disease recovery, then, is not a function of mere prescription and consumption of the drugs by the patient. A host of factors such as nutritional and social support contribute to a patient's adherence and successful completion of treatment.

Recognising the importance of nutrition in TB recovery, the Ministry of Health and Family Welfare launched the *Ni-kshay Poshan Yojana (NPY)* scheme in April 2018. All individuals on TB treatment are provided monthly nutritional support in the form of Rs 500 through Direct Benefit Transfer into their bank accounts. PPSAs have been tasked with ensuring patients in the private sector also receive their entitlements. The government also provides transport support to notified TB patients living in tribal areas. Under the Tribal Support scheme, one-time financial support of Rs 750 is provided to such patients.

Treatment adherence can also be improved through digital mechanisms in addition to the traditional Directly Observed Therapy (DOT). PPSAs like World Health Partners are leveraging technologies such as the Medication Event Reminder Monitoring (MERM), 99 DOTS, and 99 DOTS lite that are low-cost alternatives to monitor and improve patient adherence. Additionally, there is great value in use of Information and Communication Technology (ICT) for awareness generation and monitoring purposes.

Patient counselling is an important measure to ensure that those on treatment are emboldened and driven towards completing treatment. Since TB can take a toll on one's physical and mental health, counselling has been an effective tool to support patients and their families. It can be used to address social stigma and educate them about the treatment, manage adverse drug reactions, and ensure nutritional requirements are met.

Patient-centric TB care is a must for successful disease recovery, and the role of communities in this cannot be overstated. Above all, patients require a supportive environment that counters social stigma and motivates them to complete the full course of treatment. Engaging recovered patients as champions in their communities has also been a useful strategy. The President of India recently launched the *Pradhan Mantri TB Mukt Bharat Abhiyaan* which provides a platform for all individuals and organisations to support TB patients in their recovery as donors, also known as *Ni-kshay Mitras.*

PPSAs can play an important role in supporting private sector patients adhere to their treatment. They can help ensure the available government support reaches beneficiaries at the last mile.

CASE STUDY I: Using call centres for counselling and monitoring treatment adherence

Patient Provider Support Agency: *World Health Partners*

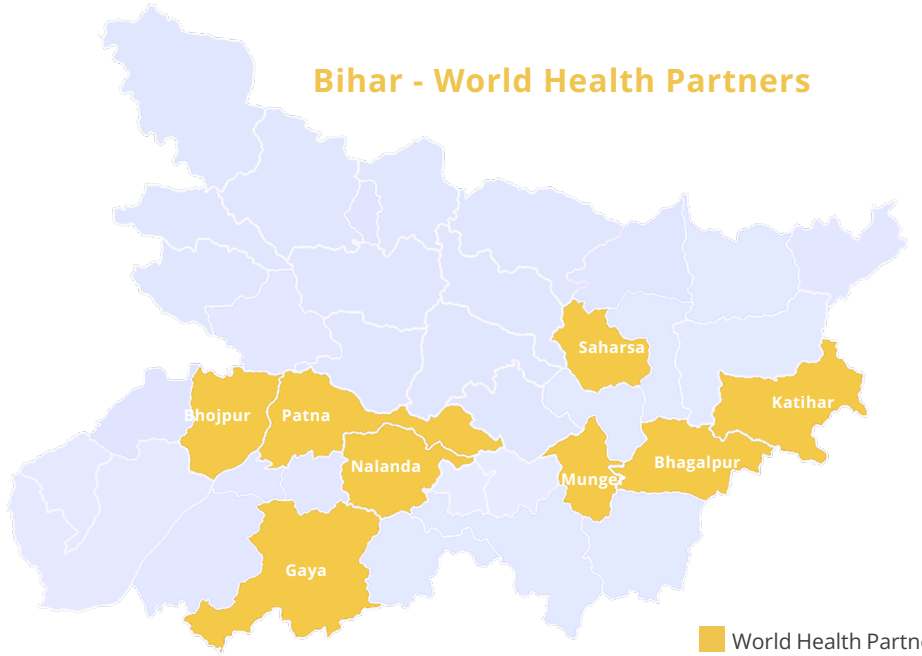
The TB programme, together with the ecosystem partners, has a huge proportion of workers who are tasked with patient outreach for various purposes, including counselling. While regular household visits for in-person counselling to patients are desirable, it's not always feasible. If the caseload is high or the scale of operations is large, it is difficult for the PPSA field staff to physically check on the patients. Monitoring treatment adherence through physical visits is also difficult if the patient moves away from the district or state of initial treatment or they are not comfortable with home visits by the agency.

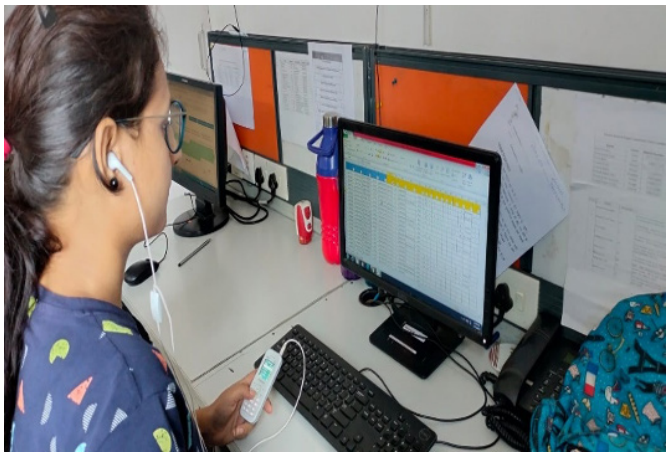
Digital mechanisms such as ICT prove to be effective alternate outreach strategies for treatment adherence in such instances.. PPSAs have established call centres that serve multiple purposes, such as counselling, treatment adherence monitoring, and outcome reporting. Through call centres, the agencies are able to reach a far greater number of patients in a cost-effective and timely manner. However, call centres have not entirely replaced other support mechanisms. Telecallers often work with the PPSA staff located at the head office and in the field to ensure support to the TB patient.

WORLD HEALTH PARTNERS

The World Health Partners programme's patient monitoring unit comprises a Monitoring Information System (MIS) team, call centre, and treatment support staff. The MIS team consolidates a weekly report of newly notified patients and lists the adherence status of existing patients. The team shares these lists with the call centre composed of 8 telecallers who are trained to provide counselling to patients, updating the status of treatment, and report treatment outcomes on the Ni-kshay portal.

Bihar - World Health Partners





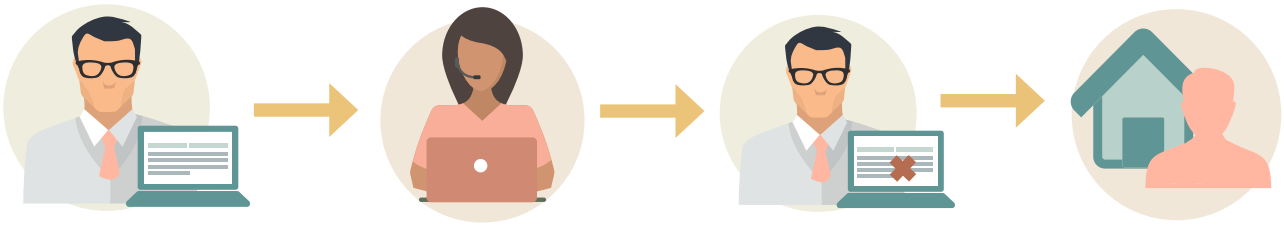
World Health Partners' Telecaller

According to World Health Partners, telecallers are able to make **120 calls per day** as compared to **8 household visits** by one field officer

65-70% of calls are successful in serving their purpose, however, the telecallers are unable to reach patients through the remaining 30-35% of the calls either because either go unanswered, or the patient's phone is not reachable.

To address these cases, the call centre prepares a list of the unproductive calls and shares it with the MIS team. This team also examines the drug refill vouchers to create a list of patients who might have missed their drug refills. MIS staff shares both these lists with the treatment support team who physically reach out to patients centre prepares a list of the unproductive calls and shares it with the MIS team.This team also examines the drug refill vouchers to create a list of patients who might have missed their drug refills. MIS staff shares both these lists with the treatment support team who physically reach out to patients unreachable through the call centre. In this way, from June 2020 to 2022, World Health Partners managed 41% of outcome reporting through call centres, and 23% and 36% through drug refill vouchers and household visits, respectively.

Beyond outcome reporting, call centres are also utilised by PPSAs for counselling the patients and their families, and enquiring about any side effects of the treatment; in case the patient is experiencing side effects, the PPSA advises the patient to visit their provider. The agency also communicates the list of pending UDST to their field coordinators through the call centres.



MIS Team prepares a list of new and existing patients

Call centre does counselling, adherence, monitoring and outcome reporting

MIS Staff consolidates list of unproductive calls and missed drug refills

Treatment support team visits the patients not reached through call centre

TREATMENT ADHERENCE UNIT

BEST PRACTICES

- Using call centres for treatment adherence and counselling is a cost-effective measure to reach more patients in a short period of time, especially given large scale of operations and low patient provider ratio

- Agencies can deploy a hybrid model with telecallers to complement the work of treatment coordinators in field. The telecallers can serve multiple purposes such as counselling, patient adherence monitoring, and outcome reporting and enable greater programme successes

FOR FURTHER DETAILS, CONTACT:

Dr. Nita Jha
Director, Sustainable Interventions, World Health Partners, Bihar
nita@whpindia.org
+91 7033095716

CASE STUDY II: Providing nutritional and social support to patients

Patient Provider Support Agencies: *Bavya Health Services, Hindustan Latex Family Planning Promotion Trust (HLFPPT) and Maharashtra Janavikas Kendra (MJK)*

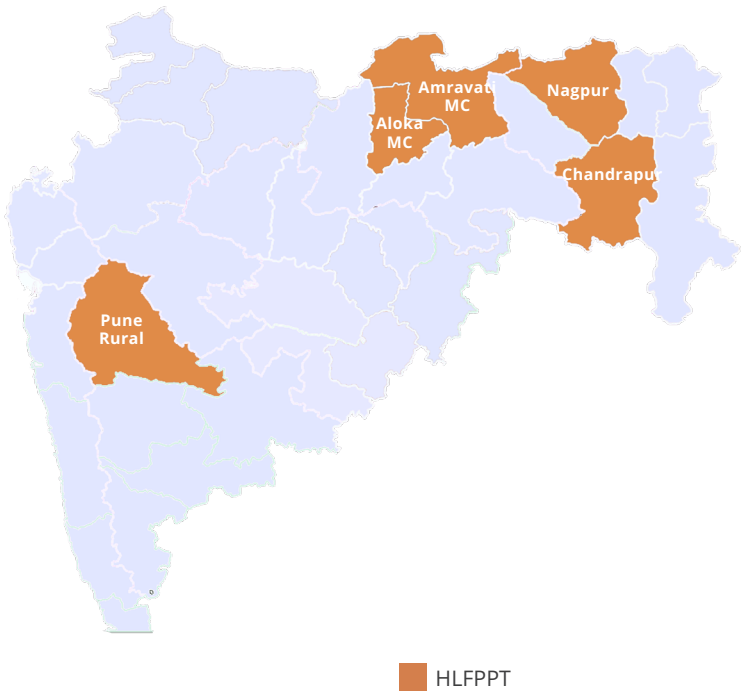
PPSAs have an important role in ensuring that the healthcare provisions and benefits of government interventions such as the *Ni-kshay Poshan Yojana* (NPY) reach the TB patient at the last mile. The agencies facilitate this through awareness generation about the scheme, its benefits, and sharing bank details with the state programme to enable DBT.

AWARENESS GENERATION

The first step to ensure uptake of the scheme is to generate awareness among patients as well as providers about the initiative. Agencies such as HLFPPT and MJK reach out to patients through call centres, household visits, and healthcare workers in the private sector (*Ni-kshay Mitras*) to sensitise them about the patient entitlements. Since NPY benefits reach the patient through DBT, the first step involves the seeding of a patient's bank account. Many patients are, however, reluctant to share this information as they are wary about sharing sensitive details given the risks of a financial fraud. To address this, the agencies provide all information about the scheme in the form of programme collaterals, refer patients to use the TB *Aarogya Sathi* app, as well as share messages drafted by the state programme. The goal is to ensure that the patients have all credible information available to make an informed decision, and to communicate to them that their information is safe, and the team adheres to the data safety and privacy protocols.

If the patients don't wish to receive the Rs 500 monthly debit, they can also forgo the benefit. Patients who opt-in to receive the NPY benefits, share their bank details with the PPSA or their health provider. In cases where the patient does not have a bank account, the PPSA assists the patient in opening a new account or sharing a family member's account details.

Maharashtra - HLFPPT



NPY DRIVE

HLFPPT organised a **7-day drive** in Maharashtra to collect patients' **bank details for NPY.**

It utilised the 2022 Notification Register to prepare a list of patients who had either not shared their details or had not forgone the benefit.

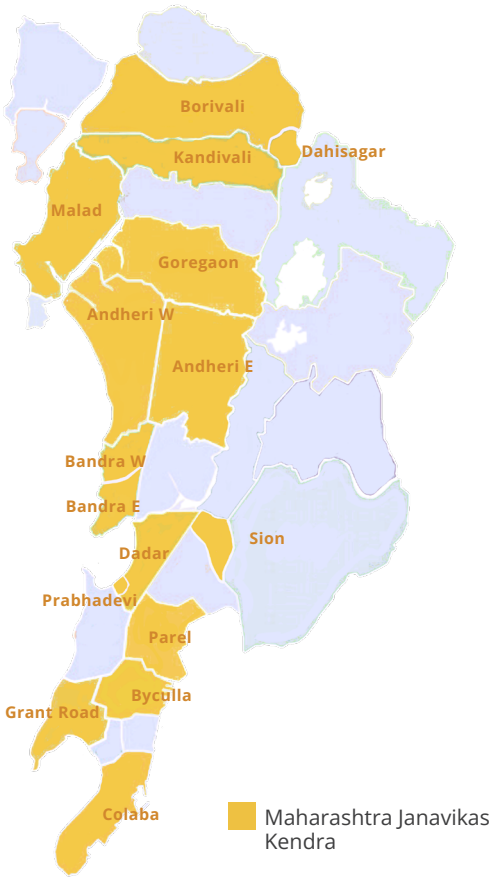
HLFPPT's field officers contacted more than **900 patients** over a course of a week to sensitise them about the scheme.

The PPSA also sent a WhatsApp message (duly vetted by the local authorities) to the patient asking them to share their bank details either with the doctor on their next visit or the PPSA, for the benefits to be credited to their bank accounts

NI-KSHAY MITRAS

Some agencies also enlist the support of staff in private health facilities as *Ni-kshay Mitras.* They help the programme by notifying cases on the *Ni-kshay* portal, collecting samples for UDST, and referring patients for HIV and DM testing. For treatment adherence, *Ni-kshay Mitras* maintain treatment cards, provide health counselling to the patients and their families, and manage drug refills. They also help collect bank details of the patients for NPY entitlements. The healthcare workers, *Ni-kshay Mitras*, are provided per patient incentive of INR 100 each for case notification, bank account entry into *Ni-kshay*, contact tracing, UDST, and successful outcome reporting.

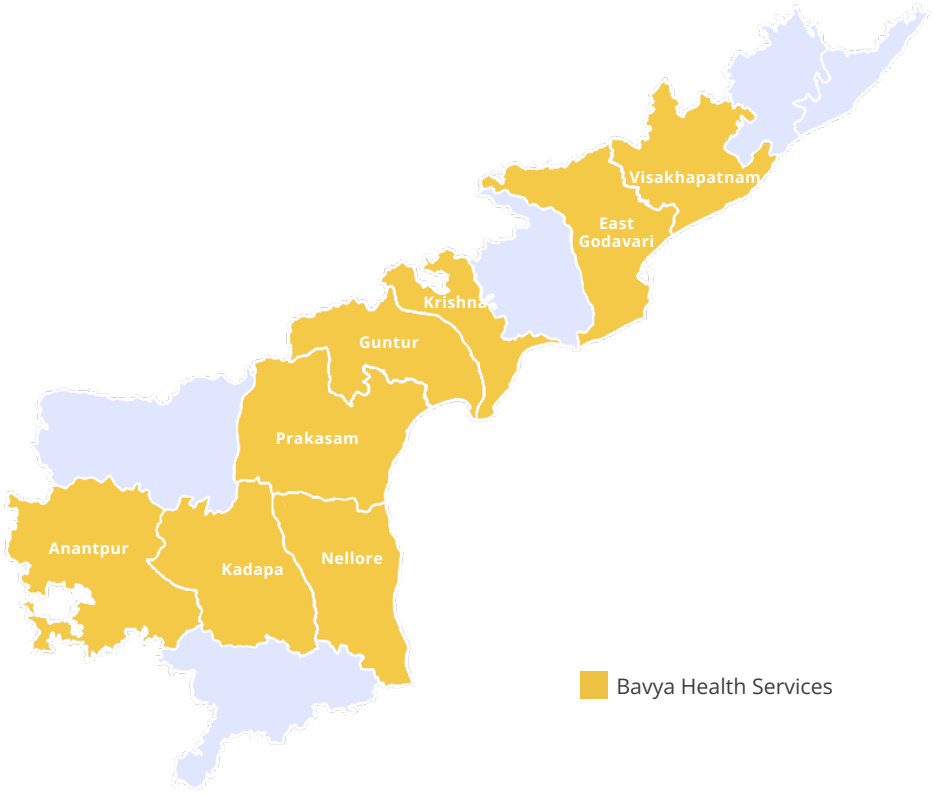
Maharashtra - Maharashtra Janavikas Kendra

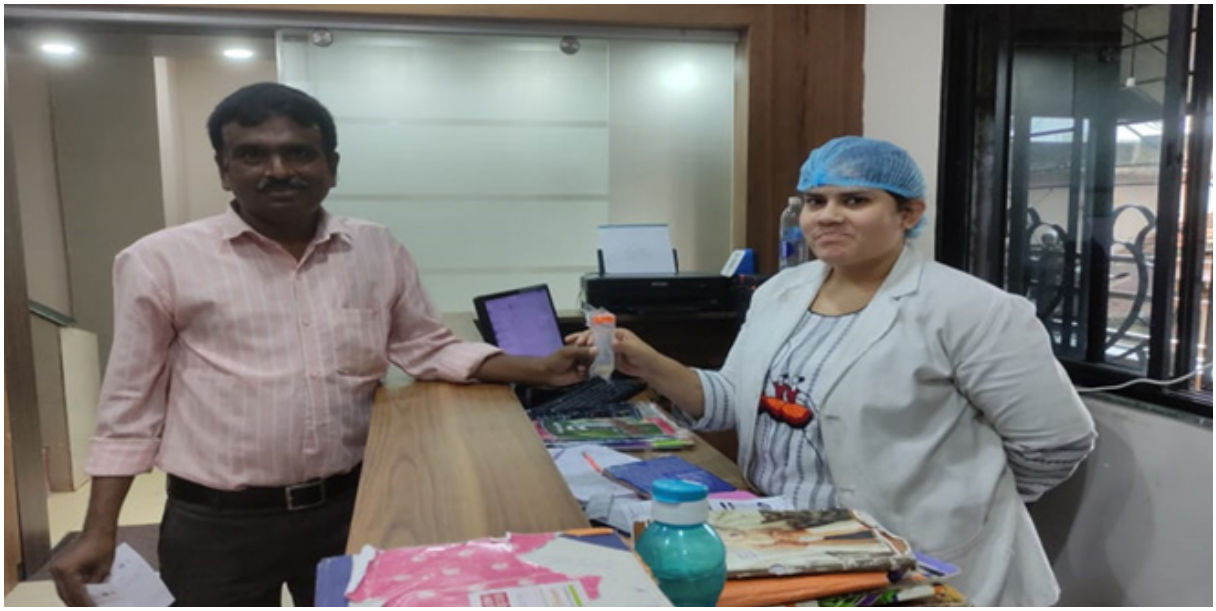


Through Bavya Health Services and HLFPPT, NPY beneficiaries who received at least 1 instalment from **January to August 2022** was **98% and 52%**, respectively.

Treatment success rates for the two agencies for the same period were **98%** and **87%**, respectively.

Andra Pradesh - Bavya Health Services





HLFPPT - Appointing staff in private health facilities as Ni-kshay Mitra

BEST PRACTICES

- To enable direct benefit transfer to beneficiaries, agencies must first identify them and then undertake targeted sensitisation. In this case study, agencies created a line-list of eligible beneficiaries with unseeded bank accounts, and then gained their trust by sharing information from credible sources such as programme collaterals, messaging from officials, and TB Aarogya Sathi app.

- Agencies can enlist the support of staff in private health facilities as Ni-kshay Mitras . They can contribute to major programme priorities such as notifying cases, referring patients for co-morbidity screening, as well as counsel patients to create trust among them for treatment adherence

FOR FURTHER DETAILS, CONTACT:

Mr. Suresh Kamle
Chief Operating Officer, Bavya Health Services
sureshkamle@ihgprojhects.in
+91 8008611108

Dr. Sangita Pandey
National Lead, Hindustan Latex Family Planning
psangita@hlfppt.org
+91 945012316

Mr. Akbar Ali Sayyad
Director, Maharashtra Janavikas Kendra
mjkdilly@yahoo.com
+91 9821460039

THEME E

PROJECT MANAGEMENT

The PPSA model is an output-based contract between the NTEP and the agency wherein payments are made based on the agency's progress towards mutually agreed upon targets. It is, therefore, important for the PPSA to regularly track its progress towards the goal.

One of the ways to ensure programme targets are met is by linking staff performance to programme outputs, and setting targets for the staff, paying heed to the multitude of tasks and geographies of operation. This also entails breaking the larger targets into small weekly tasks and distributing them between the project team and effectively tracking the same. The project managers must regularly review the performance of each employee to identify challenges and find solutions to them. This process also helps the project management reward the high performers and incentivise others to improve their performance.

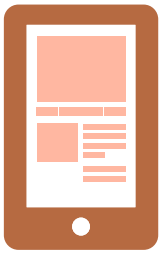
Verification and validation of outputs is done by NTEP officers who select a sample for validation . In case of unmet targets, the issue is raised with the PPSA to identify challenges and come up with solutions to achieve the goals. In some cases, this verification process may be delayed, which has a large impact on timely payment to implementing agencies. These payment delays affect the working capital of agencies and can potentially jeopardize their ability to continue operations. It is, therefore, important to introduce mechanisms to streamline validation processes to ensure that agency targets are tracked and achieved, and payments are made on a timely basis.

CASE STUDY I: Using app-based data validation technology for PPSA performance monitoring

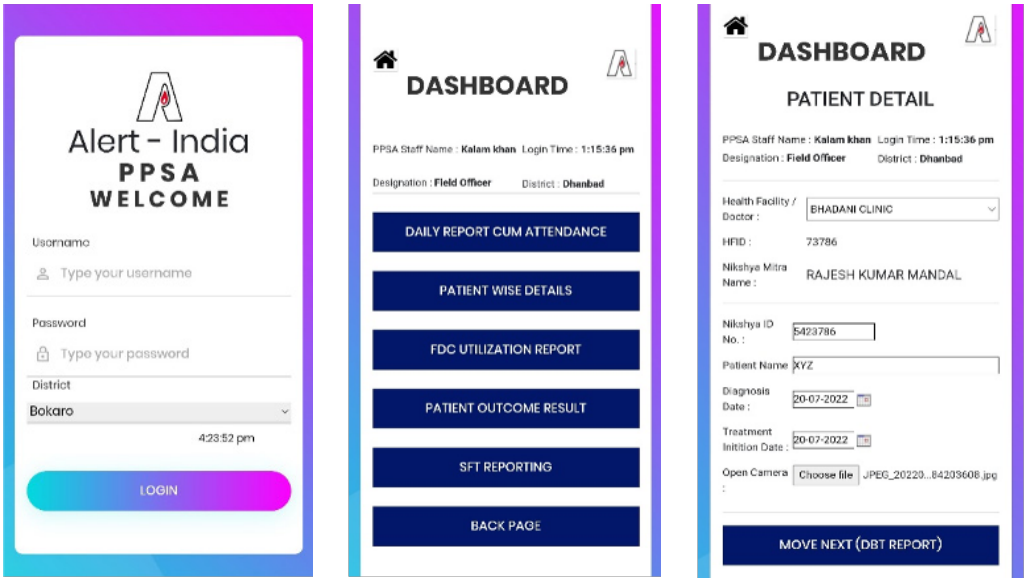
Patient Provider Support Agency: *ALERT India*

Quality data on performance is critical for the success of any output-based programme. Data quality here, refers to the timeliness, accuracy, consistency, and uniqueness of the data across each stage of the PPSA's performance. Quality data is essential to assess whether efforts are effective towards the end goal, and to benchmark performance and progress against set targets. It is of paramount importance for the PPSAs to maintain and report quality data because it is a measure of not just the TB programme's progress but the agency's contribution to the TB elimination programme as well. **Accurate and consistent data holds up to external validation, and helps contribute to timely payments to the PPSAs, whereas inaccurate reporting on the *Ni-kshay* portal can carry penalties and impair the agency's credibility.**

There are two methods of data verification and validation – internal (by the agency, assessing its own performance), and external (by the NTEP/external agency/partners to validate and pay against performance). While the latter's importance is understood in terms of being essential to make payments, internal validation by the agency is necessary to remove any data errors, which may be penalized by the NTEP. Internal data validation by the PPSAs can ensure data on Ni-kshay portal is correctly reported. Quality data with no inconsistencies also helps the agency maintain its credibility with the programme.



To support this endeavour, ALERT India developed a **mobile application** that allows field officers to enter patient records as well as evidence of other deliverables such as visits to health facilities.

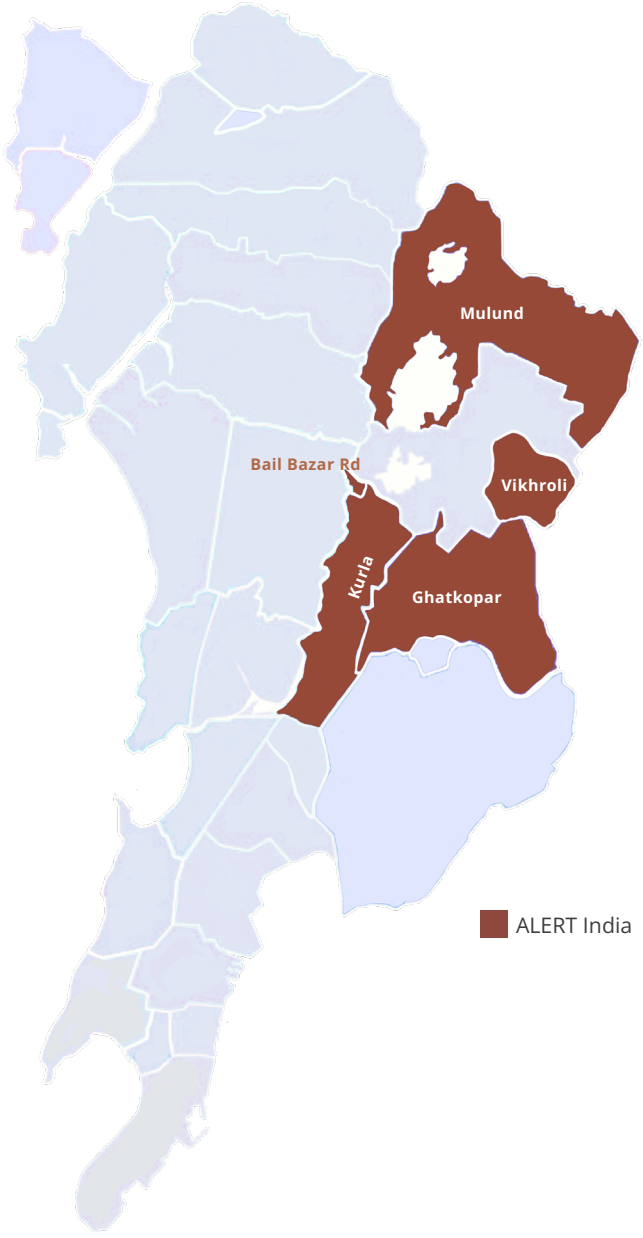


The PPSA App Interface

Field officers have their unique user details, which they use to log in and add patient and facility data. This data is stored on a secure cloud server, and patient records can be accessed and downloaded through the admin control panel.

Each of the data points is then cross-validated using the app to check for any discrepancy against the *Ni-kshay* dashboard.

Maharashtra - ALERT India



District	Diagnosis Date	Nikshay ID	As per Nikshay Data					Validation Status	As per PPSA App Data				
			UDST Done (Yes/No)	DBT Details Validated (Yes/No)	HIV Testing Done (Yes/No)	DM Testing Done (Yes/No)	Successful Outcome (Yes/No)		UDST Done (Yes/No)	DBT Details Validated (Yes/No)	HIV Testing Done (Yes/No)	DM Testing Done (Yes/No)	Successful Outcome (Yes/No)
Ranchi	02/05/22	25288823	Yes	Yes	Yes	Yes	Yes	Validated	Yes	Yes	Yes	Yes	Yes
Ranchi	01/04/22	25816628	No	Yes	Yes	Yes	Yes	Validated	No	Yes	Yes	Yes	Yes
Ranchi	01/04/22	25816190	Yes	Yes	Yes	Yes	Yes	Validated	Yes	Yes	Yes	Yes	Yes
Ranchi	23/06/22	26562268	Yes	Yes	Yes	Yes	Yes	Validated	Yes	Yes	Yes	Yes	Yes
Ranchi	19/05/22	25941372	No	Yes	Yes	No	Yes	Validated	No	Yes	Yes	No	Yes
Ranchi	07/04/22	26123614	Yes	Yes	Yes	Yes	No	Validated	Yes	Yes	Yes	Yes	No
Ranchi	31/05/22	26123221	Yes	No	No	Yes	Yes	Validated	Yes	No	No	Yes	Yes
Ranchi	01/04/22	25904353	No	Yes	Yes	Yes	Yes	Validated	No	Yes	Yes	Yes	Yes
Ranchi	03/06/22	26208425	Yes	Yes	Yes	Yes	Yes	Validated	Yes	Yes	Yes	Yes	Yes
Ranchi	09/06/22	26333764	Yes	No	No	Yes	Yes	Validated	Yes	No	No	Yes	Yes
Ranchi	12/05/22	25607969	No	Yes	Yes	Yes	No	Validated	No	Yes	Yes	Yes	No
Ranchi	12/05/22	25607847	Yes	Yes	No	Yes	Yes	Cross-Check	Yes	Yes	Yes	Yes	Yes
Ranchi	15/04/22	25175212	No	Yes	Yes	Yes	No	Validated	No	Yes	Yes	Yes	No
Ranchi	11/04/22	25175704	No	Yes	Yes	Yes	Yes	Validated	No	Yes	Yes	Yes	Yes
Ranchi	03/06/22	26902293	No	Yes	Yes	No	Yes	Validated	No	Yes	Yes	No	Yes
Ranchi	16/05/22	26089514	Yes	No	No	No	Yes	Validated	Yes	No	No	No	Yes
Ranchi	05/05/22	26089453	Yes	Yes	Yes	Yes	Yes	Validated	Yes	Yes	Yes	Yes	Yes
Ranchi	14/05/22	26089361	No	Yes	Yes	Yes	Yes	Validated	No	Yes	Yes	Yes	Yes
Ranchi	04/05/22	26089221	No	No	No	Yes	Yes	Validated	No	No	No	Yes	Yes
Ranchi	22/04/22	25018670	Yes	Yes	Yes	Yes	Yes	Validated	Yes	Yes	Yes	Yes	Yes
Ranchi	21/05/22	25789322	No	Yes	Yes	Yes	Yes	Cross-Check	No	Yes	Yes	No	Yes
Ranchi	28/05/22	26001601	Yes	Yes	Yes	Yes	No	Validated	Yes	Yes	Yes	Yes	No

Data cross-validation on PPSA app, and on Ni-kshay dashboard. Any discrepancies are highlighted in red, and then cross-checked.

This process helped ALERT India submit accurate data in a timely manner. Since the agency validated reports using internal patient records, there were no discrepancies in the reports submitted to the TB programme team. Moreover, since the verification process was automated, it helped the agency significantly reduce time spent on report generation and verification, leading to timely submission of reports. This also helped fast track the invoice verification process. The mobile app also helped improve efficiency of supervision and monitoring of operations, and improved the overall effectiveness of the PPSA's performance.

ALMOST NO PENALTY CHARGES WERE PLACED ON ALERT INDIA OWING TO THIS DATA VALIDATION PROCESS,

BEST PRACTICES

- PPSAs must introduce mechanisms for internal data quality checks to streamline invoice verification and validation processes, and enhance their credibility. Leveraging technology to develop an in-house app enabled ALERT India to make programme data available for real-time internal validation. This helped the agency to report quality data in a timely manner, leading to almost zero penalty charges from the programme.

FOR FURTHER DETAILS, CONTACT:

Ms. Prabha Mahesh
Project Director, Health Projects, ALERT India
alertprabha@gmail.com
+91 9819042375

CASE STUDY II: Developing a competency framework and employing technology to track programme goals

Patient Provider Support Agencies: *Hindustan Latex Family Planning Promotion Trust and World Health Partners*

An important component of project management is monitoring staff performance. Since the PPSAs are contracted on output-based projects, it is essential for them to develop a competency framework for their staff with clear targets assigned at the beginning of operations to achieve targets. Regular monitoring of the performance of each individual personnel against set indicators offers the PPSA an insight into programme performance and allows for remedial/corrective actions.

WORLD HEALTH PARTNERS

At the outset, the agencies must develop a competency framework that clearly delineates the roles and responsibilities of all human resources along with the skills required to perform the tasks. While the value-addition of a staff member in field is equal to an MIS team member, they both require different skills and styles of supervision. Hence, their performance appraisal needs to take these differences into account. Moreover, the project managers must be sensitive to the differences in work conditions of all personnel (for instance, a person undertaking sputum collection and transportation in a rural area vs urban area). Paying heed to all these considerations, World Health Partners employs an objective appraisal system to evaluate the performance of its staff. This has two aspects: one, the agency assigns a different value to each type of activity, such as notification of TB patients, co-morbidity screening, and UDST. Secondly, to set individual performance targets, WHP gives weightage to the location (urban, rural) wherein the employee is operating. The employee is finally graded based on achievement of their target for programme indicators. WHP has thus intricately tied the performance assessment of its staff to their contribution towards the programme target achievement. The staff is ranked based on their performance and the agency provides incentives to top performers, encouraging contribution to programme indicators.

ACTIVITIES WITH THEIR ASSIGNED VALUES

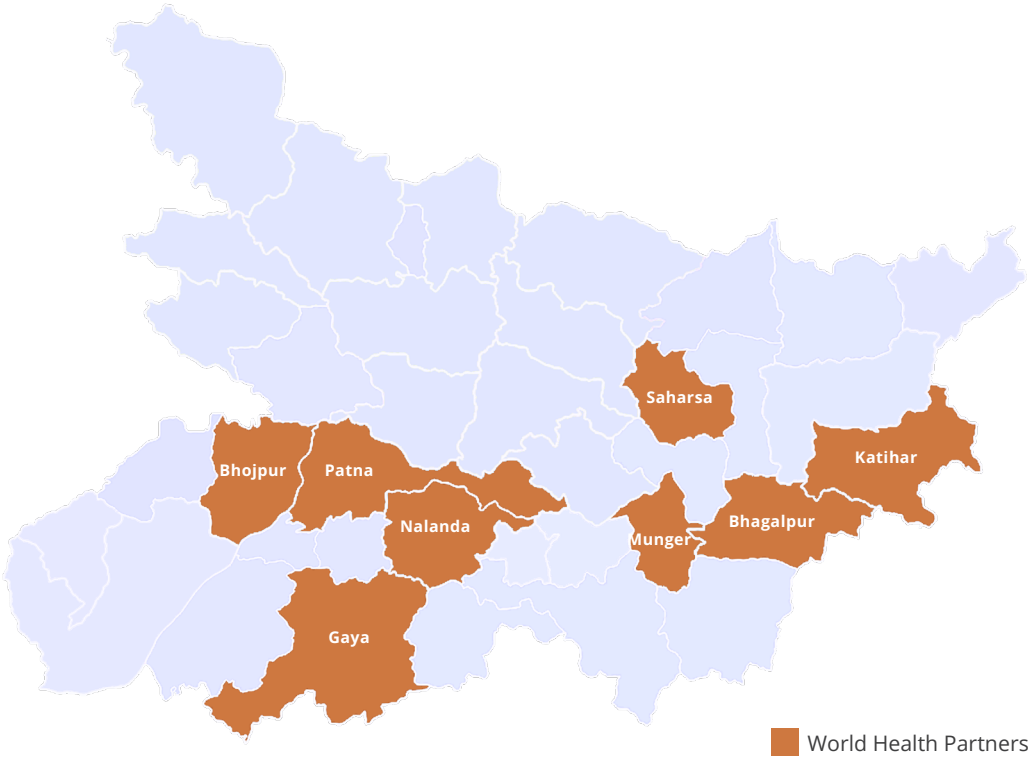
ACTIVITY	VALUE
Notification of TB patient	6
HIV and DM testing	4
UDST	6
Bank Seeding	4
Household visit for patient counselling	10
Household visit for adherence and outcome	10

PPSA Indicator				Value -6				Value -4				Value -6				Value -4				Total Value -20	
				Excellent (90 -100)%			6	Excellent (90 -100)%			4	Excellent (90 -100)%			6	Excellent (90 -100)%			4	Excellent	18-20
				Very Good (70-89)%			5	Very Good (70-89)%			3	Very Good (70-89)%			5	Very Good (70-89)%			3	Very Good	14-17
				Average Performance (50 - 69) %			3	Average Performance (50 - 69) %			2	Average Performance (50 - 69) %			3	Average Performance (50 - 69) %			2	Average Performance	10-13
				Poor Performance (< 50%)			2	Poor Performance (< 50%)			3	Poor Performance (< 50%)			2	Poor Performance (< 50%)			1	Poor Performance	=<9
				Notification				DM+HIV				UDST				Bank Seeding				Over all Performance	
Sl No	District Name	FO Name	FO I'D	Target	Achievement	% Achievement	Wtg	Target	Achievement	% Achievement	Wtg	Target	Achievement	% Achievement	Wtg	Target	Achievement	% Achievement	Wtg	score	Performance
1	PATNA	Abhishek Ranjan	FO10PAT	220	137	62%	3	137	104	76%	3	137	36	26%	2	137	107	78%	3	11	Average
2	PATNA	Arun Kumar Verma	FO14PAT	235	114	49%	2	114	87	76%	3	114	32	28%	2	114	85	75%	3	10	Average
3	PATNA	Chandramani Kumar Bariar	FO7PAT	200	182	91%	6	182	170	93%	4	182	20	11%	2	182	141	77%	3	15	Very Good
4	PATNA	Manish Kumar Tiwary	FO9PAT	160	100	63%	3	100	75	75%	3	100	42	42%	2	100	43	43%	1	9	Poor
5	PATNA	Pankaj Kumar	FO15PAT	110	75	68%	3	75	63	84%	3	75	36	48%	2	75	54	72%	3	11	Average

Performance assessment based on achievement of targets for programme indicators

In addition to daily supervision, World Health Partners also reviews progress on a weekly, monthly, and quarterly basis. This regular monitoring and assessment help the agency recognise and reward the best performers while motivating others to perform better. This exercise also helps to identify areas of concern for staff performance and plan improvement, as appropriate.

Bihar - World Health Partners



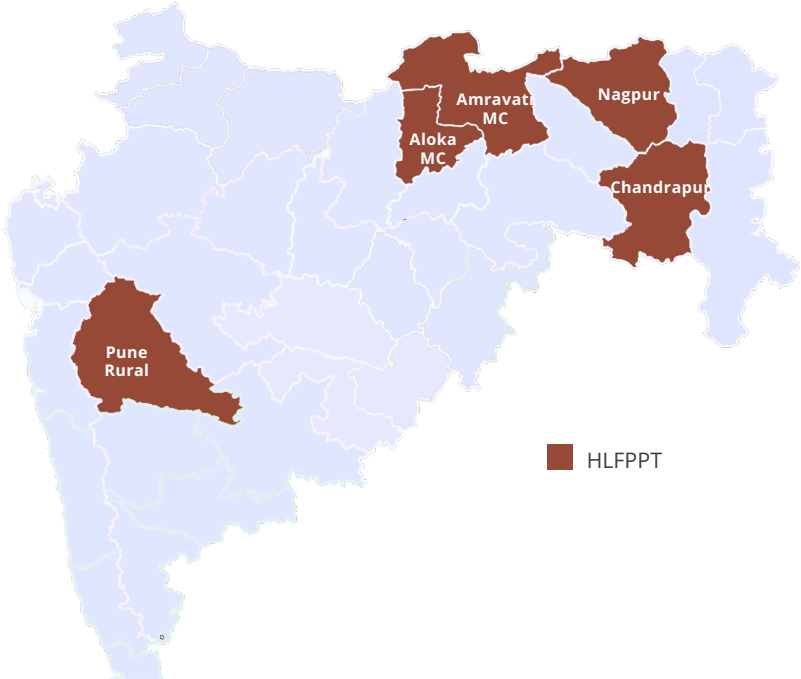
HINDUSTAN LATEX FAMILY PLANNING PROMOTION TRUST (HLFPPT)

Given the scope and scale of their operations, the PPSAs might face challenges in monitoring programme implementation and performance assessment. For validation purposes, it is essential for the PPSAs to maintain quality data. Physical records pose a challenge to real-time reporting and internal cross-verification of data – both necessary for smooth and efficient operations. Moreover, real-time tracking of field staff was found to be a challenge with daily manual entries being a tedious task. **While World Health Partners utilised the CommCare app (data collection platform) to maintain digital records and monitor staff performance, Hindustan Latex Family Planning Promotion Trust developed an app to address these challenges.** The app enabled the HLFPPT staff to record their activities in a manner that is accessible to their supervisors in real-time whilst also tracking the pending tasks. A complete record of a patient is maintained in the app including copies of their treatment cards, diagnosis reports, and FDC uptake, doing away the need to maintain physical records. The online platform also aids the organisation conduct an internal validation of data entered in the *Ni-kshay* Portal at two levels: in the field by the project coordinators and at the head office by the MIS team. Field officers are able to enter health facility-wise details which helps the programme managers track the impact of each field visit and accordingly undertake micro-level planning.

HLFPPT's App

The real-time accessibility of quality programme data enables HLFPPT to assess staff performance. The agency also utilised the app to maintain a database of all providers in the region.

Maharashtra - HLFPPT



BEST PRACTICES

- Given that the PPSA model is an output-based contract and achieving targets is of key interest to the agencies, they must assess performance of their staff in alignment with the project targets. Evaluating staff performance in terms of their contribution to programme indicators helped World Health Partners and HLFPPT assess performance in an objective manner while keeping progress towards programme goals at the centre of operations

- PPSAs must undertake regular performance assessment. In this case study, it helped the agencies identify prevailing challenges in operations and provide support required by the staff members. It also helped them to undertake corrective action such as re-training and additional staff deployment, as applicable

FOR FURTHER DETAILS, CONTACT:

Dr. Nita Jha
Director, Sustainable Interventions, World Health Partners, Bihar
nita@whpindia.org
+91 7033095716

Dr. Sangita Pandey
National Lead, Hindustan Latex Family Planning Promotion Trust
psangita@hlfppt.org
+91 945012316

THEME F

STATE-LED PRIVATE PROVIDER ENGAGEMENT

State incentivizing private providers across the TB care cascade: the Patient Provider Incentive Scheme (PPIS)

While many states have been contracting Community Based Organizations (CBOs) under the PPSA model, Rajasthan NTEP has been directly engaging with the private providers without any intermediary agency. To achieve the programmatic priorities, the state programme incentivizes private providers to improve TB service delivery and hence, health outcomes.

The Rajasthan NTEP launched its Patient Provider Incentive Scheme (PPIS) model in August 2020 across 26 of its total 34 districts. Following its success, the scheme was subsequently rolled out to the remaining 8 districts in August 2021. Under the scheme, private providers are eligible for incentives based on their contribution to parameters at every step of the TB care cascade. They are paid for completing each of the following six tasks: notifying patients, seeding patient's bank account, UDST, co-morbidity screening, distributing government FDC, and reporting treatment outcome. In addition to the PPIS incentives, the private providers receive the NTEP incentives of Rs 500 for case notification and Rs 500 for reporting successful treatment outcome.

INDUCTION INTO THE SCHEME

Any private provider registered with an official council or authority is eligible to participate in the programme. To begin with, the district NTEP offices identify private providers. They reach out to professional medical associations such as the Indian Medical Association (IMA), the Federation of Obstetric and Gynaecological Societies of India (FOGSI), the Association of Physicians of India (AOPI), and the District Health Society for greater participation of private providers. The District TB officers (DTOs) sensitize private providers about the PPIS scheme and send them a formal letter of invitation to onboard them into the programme. Once providers enrol in the scheme, the district TB team helps them register on the *Ni-kshay* portal, if they aren't already on the system. Providers report all public health actions undertaken for diagnosis and treatment on the *Ni-kshay* portal.

Ni-kshay ID for the engaged private providers

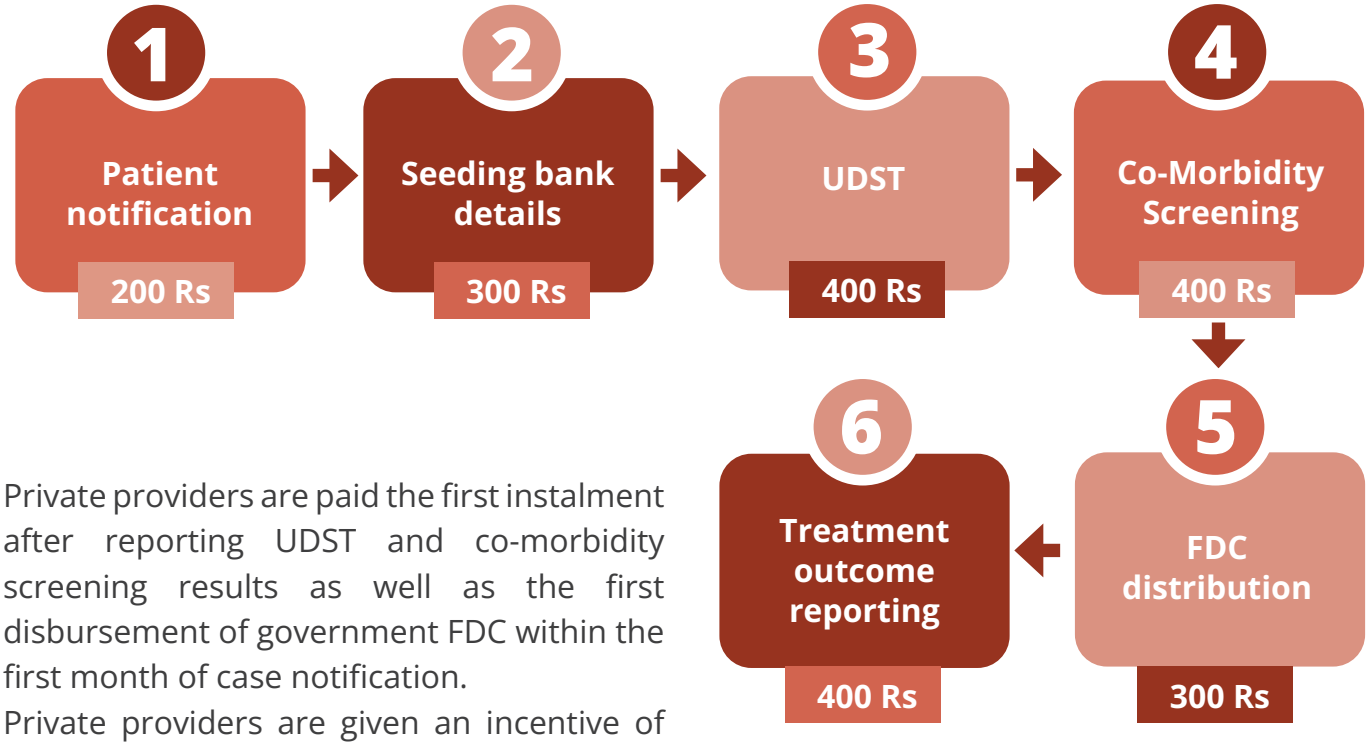
Post onboarding, the district offices organise training for the private providers to familiarise them with the *Ni-kshay* portal as well as the reporting and validation mechanisms under the PPIS scheme.

INCENTIVES ALONG THE TB CARE CASCADE

All activities undertaken under the scheme are time-bound. The private providers must enrol all presumptive cases on the *Ni-kshay* portal, and as soon as a patient is diagnosed, notify the case (within a month). For each case notified on the *Ni-kshay* portal, the private providers are paid an incentive of Rs 200.

As of December 2022, **~6,800 private providers** have been enrolled in the PPIS initiative, of whom **~4,300 providers together notified ~42,800 patients.**

sample collection and transportation to a designated lab, sometimes using agents to facilitate the process. Providers receive an incentive of Rs 400 each for uploading UDST and co-morbidity screening results on the Ni-kshay portal.



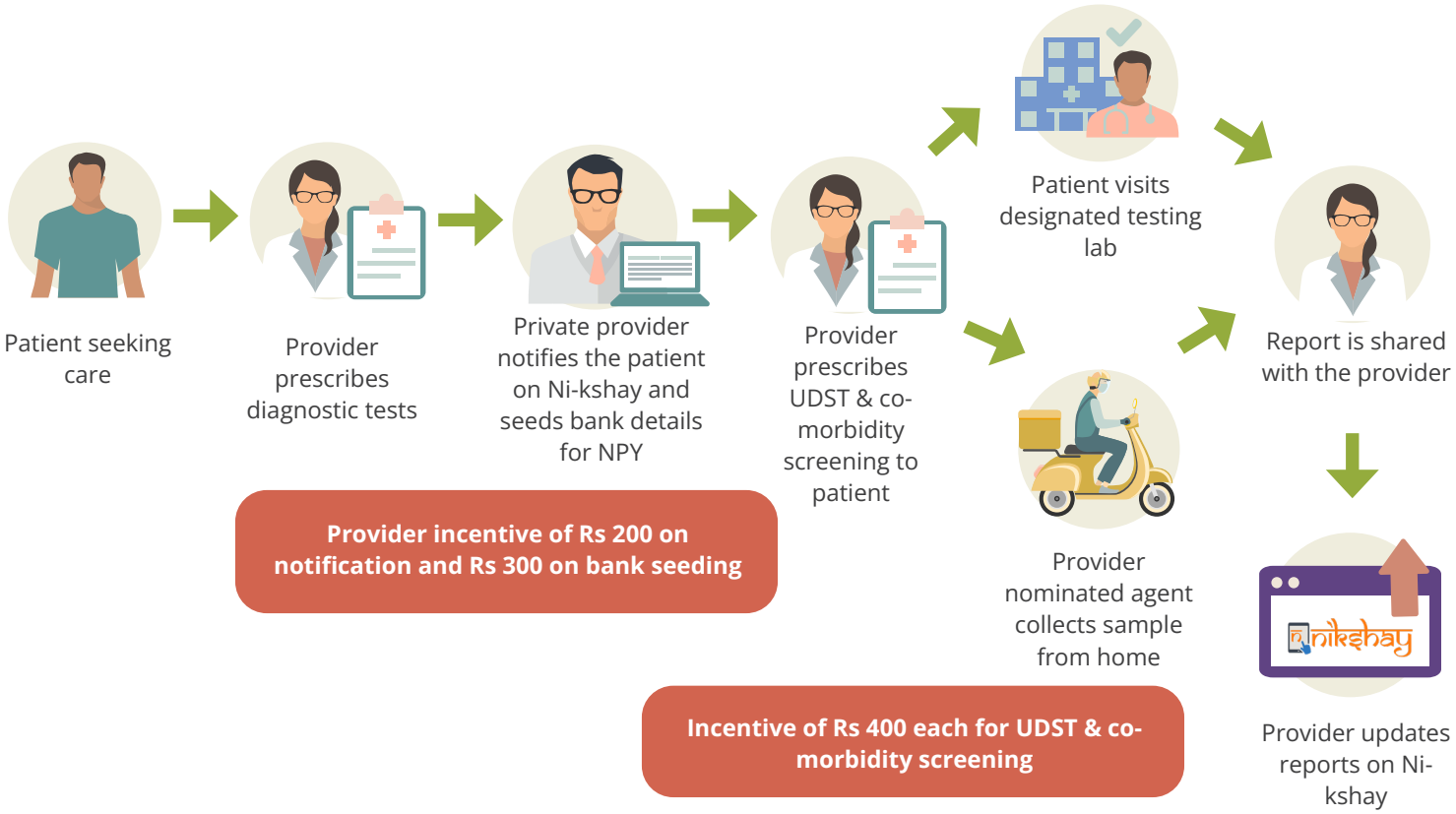
Private providers are paid the first instalment after reporting UDST and co-morbidity screening results as well as the first disbursement of government FDC within the first month of case notification.

Private providers are given an incentive of Rs 300 for uploading each patient's bank account details for *Ni-kshay Poshan Yojana (NPY)* entitlements.

As of December 2022, providers seeded bank accounts for **72% of the eligible NPY beneficiaries.**

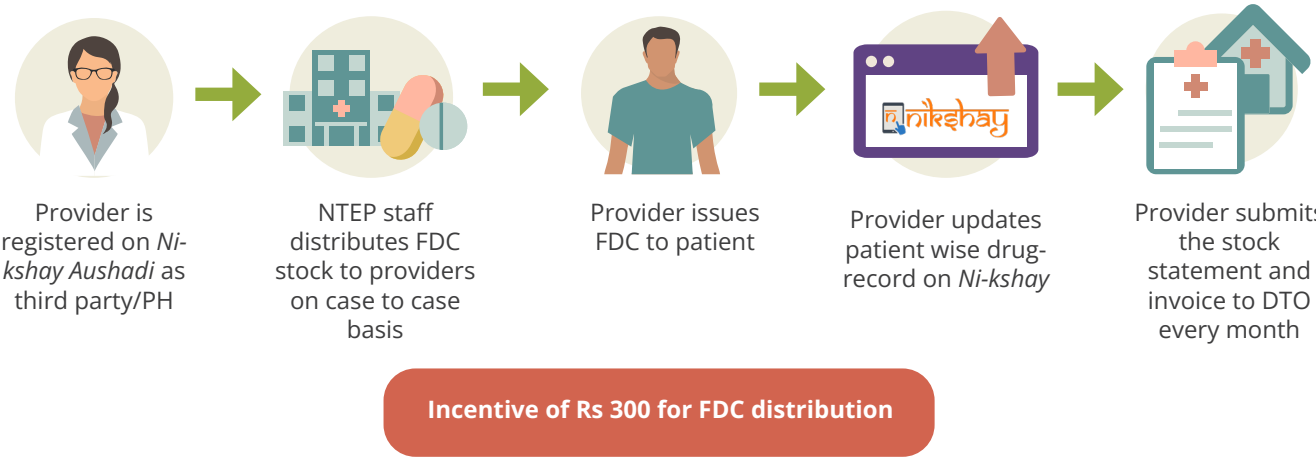
In the year 2022, private providers facilitated **HIV screening of ~36,000 patients, and conducted UDST for 27% (~12,000) of the notified cases.**

To undertake UDST and co-morbidity screening (HIV and Diabetes Mellitus), private providers are expected to facilitate



SCREENING AND UDST SUPPORT BY THE PRIVATE PROVIDERS

For government FDC distribution, the district NTEP registers private providers on the Ni-kshay Aushadi portal as a third party, and issues drug stock based on their requirements. Government FDC is stored at the district hub and is issued to the providers as per their requirements.



PROCESS FLOW OF GOVERNMENT FDC STOCKING AND DISPENSATION

Providers receive Rs 300 for dispensing government FDC to their patients and are required to update the details in the Ni-kshay portal's Dispensation module. The first instalment of Rs 150 is paid to the provider after dispensation of the drugs for the 1st month and then another Rs 150 in the sixth month of treatment.

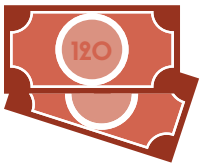
Lastly, private providers report treatment outcomes on Ni-kshay for which they receive an incentive of Rs 400 for each successful case.

The Rajasthan TB programme reported treatment **success rate of 89% through PPIS in 2022**

VERIFICATION AND PAYMENTS

Each stage of incentive disbursement undergoes a verification process. The private providers generate invoices based on the patient records and Ni-kshay reports and submit them to the DTO for approval.

After due verification, the payment is credited to the bank accounts of the healthcare providers. To ensure timely verification and payment, the state NTEP has developed a payment tracker and dashboard to ensure claims are raised, verified, and paid in a timely fashion.



Out of the **Rs 2.06 crores claimed by the providers through PPIS, Rs 1.74 crores (88.4%)** had been settled as of May 2022.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	CLAIM FORM FOR P.P./P. HOSPITAL UNDER PPSA SCHEME FOR THE MONTH															
2	S.NO	NAME OF PATIENT	NIKSHAY ID	DATE OF ENROLLMENT	CLAIM AMOUNT @ RS 200	DATE OF BANK A/C SEEDING	CLAIM AMOUNT @ RS 300	UDST DATE	CLAIM AMOUNT @ RS 400	HIV & DM DATE	CLAIM AMOUNT @ RS 400	FDC DISTRIBUTION DONE FOR .....MONTHS	CLAIM AMOUNT @ RS 50/MONTH UPTO 6 MONTHS	DATE OF OUTCOME ENTERED	CLAIM AMOUNT @ RS 400	TOTAL AMOUNT
3	1															
4	2															
5	3															
6	4															
7	5															
8	6															
9	7															

Claim form to be filled by the private providers

REGULAR ENGAGEMENT WITH THE PROFESSIONAL ASSOCIATIONS

The Rajasthan NTEP regularly engages with the professional medical associations such as the IMA and FOGSI to sensitize them about scheme-related developments and ensure their continued support. It organizes workshops and Continuing Medical Education (CME) sessions that also serve as a platform for resolution of challenges faced by the private providers. Beyond grievance redressal, on World TB Day 2022, the state recognized the contributions of 92 private providers to the state programme through case notification, bank seeding, and public health actions such as UDST and co-morbidity screening.

Felicitation of exemplary private providers on World TB Day, 2022

REVIEW AND MONITORING MECHANISM

Since the state is directly engaging with the private providers under PPIS, the programme has established a regular review mechanism. **The administrative secretary of the Department of Health and Mission Director, National Health Mission, Rajasthan review the progress of the programme on a quarterly basis to understand the scheme-related challenges and find solutions to them through a consultative process involving the State TB Officer and all District TB Officers.**

Rajasthan's Patient Provider Incentive Scheme is an alternative to other private sector engagement models being implemented across the country. It underscores the role of the state in directly engaging with the private sector to make quality TB care available to all patients, irrespective of where they seek care.

BEST PRACTICES

- State-led engagement with the private providers creates greater ownership among the TB programme officials. This has several dividends:
  - DTOs reached out to professional associations leading to increased participation of private providers in the scheme and hence, quality care to patients seeking care in the private sector
  - A regular reviewing mechanism with the administrative secretaries and other senior officials has been established which helped the programme address its implementation challenges
- The state has created a seamless validation process through the scheme which has led to timely payments to the private providers

  Regular grievance redressal and recognition of high-performing private providers lead to their greater buy-in and a strong relationship with the state and the TB elimination goal

FOR FURTHER DETAILS, CONTACT:

State TB Cell, Rajasthan
storj@rntcp.org

CONCLUSION

Private sector providers hold the key to TB elimination in India. The National TB Prevalence Survey (2019-21) estimates that almost 50% of those with TB symptoms consult private providers as their first point of contact. In 2016, a study based on drug sales data estimated the private sector to be the first point of care for 61% of TB patients[11]. However, the private sector may not always ensure timely and quality TB care. According to a 2019 study[12], a patient displaying symptoms of TB approached five to seven different private healthcare providers, taking up to 30 or 65 days before being accurately diagnosed. At each provider, a different set of protocols (which don't adhere to the WHO and Government of India-approved guidelines) were followed. This unstandardized nature of care delays the initiation of appropriate treatment and increases the risk of disease transmission. Flawed interventions can also aggravate the medical condition of the patient/s potentially leading to drug-resistant forms of the disease.

As we move towards the fast-approaching goal of TB elimination from India, it is imperative for private providers – labs, chemists, and doctors – to be brought into the fold of NTEP for efficient delivery of affordable and quality service to the last-mile. This compendium has demonstrated the potential of private sector engagement in furthering TB programme goals, such as increase in private sector notifications, providing free and quality diagnostics and treatment, and providing a supportive ecosystem to patients for TB recovery.

The NTEP has introduced several private engagement models over the years. The Patient Provider Support Agency model has demonstrated impact across various geographies in forming a network of private providers that are aligned to NTEP diagnostic and treatment protocols. While the programme usually contracts CBOs in the output-based model, this compendium also documented an alternate wherein for-profit organisations with strong logistics and inventory management abilities can be contracted for TB service delivery. Through its Patient Provider Incentive Scheme (PPIS), the Rajasthan NTEP is demonstrating the merits of state-led engagement with the private providers (without any intermediary agency) through incentives linked to every step of the TB care cascade.

1. REGULAR ENGAGEMENT WITH DIVERSE PRIVATE PROVIDERS (DOCTORS, LABS, CHEMISTS ETC)

Building relationship with private providers

[11] Arinaminpathy Net al., "The number of privately treated tuberculosis cases in India: an estimation from drug sales data," *The Lancet. Infectious Diseases*, 16(11) (2016): 1255-1260, accessed February 15, 2023, doi: 10.1016/S1473-3099(16)30259-6

[12] Aruna Bhattacharya Chakravarty, et al., "Such a long journey: What health seeking pathways of patient with drug resistant tuberculosis in Mumbai tell us," PLoS One, 14(1) (2019), accessed February 15, 2023, doi: 10.1371/journal.pone.0209924

through regular sensitisation and grievance redressal can yield huge dividends. By creating strong relationships with private providers, NTEPs can leverage their support to provide services across the care cascade – demonstrating impact beyond the notification of TB cases. When providers are kept at the centre of engagement efforts, labs go beyond TB diagnostics to support co-morbidity screenings, chemists go beyond maintaining H1 registers to stock government FDC, and doctors provide their speciality skills to cater to extrapulmonary TB diagnostics.

Diverse private providers must be engaged for this purpose. For example, to increase notification in rural areas, strong buy-in of informal providers is necessary, and for paediatric sample collection, paediatricians must be brought into the fold of the TB programme. There is indisputable value in mapping all active private providers through a universal mapping exercise as a starting point.

Consider creating incentives (both monetary, and non-monetary by recognizing their contributions) to create buy-in among private providers like pharmacists and labs, and specialist doctors to contribute towards extrapulmonary and paediatric TB diagnostics, co-morbidity screening, and government FDC uptake.

2. MOBILISING ALL STAKEHOLDERS IN THE ECOSYSTEM

Private sector engagement is an NTEP responsibility, but several stakeholders in the ecosystem have a stake in its success. Practices of effective governance, community mobilization, and improving efficiency are all a part of a systems strengthening approach, which recognizes the role of structures and diverse stakeholders in shaping the success of private sector engagement models. Recognizing stakeholders, the role they play, and setting an agenda for their engagement helps strengthen efforts across the care cascade.

- ***Administration*:** Bringing in state and district leadership can help solve systemic issues to the TB programme

Consider the role of regular reviews/ interactions with state and district administrative leadership to solve challenges related to delays in payment validations, shortage of UDST consumables, lack of prioritization of testing of samples from patients in the private sector, and FDC stocking. Advocacy with the administration may help garner support of diverse stakeholders beyond the NTEP like pharmacy associations to solve other programmatic challenges.

- ***For-profit organisations*:** In addition to the CBOs that are usually contracted as PPSAs, for-profit organisations with specialisation in inventory and logistics management may bring in process efficiencies that yield better results. They are able to cater to demands for a wider range of services and at a bigger scale. Examples include, Tata 1mg and Apollo.

- ***TB Champions:*** Engaging cured patients as peers and champions for sensitising communities about TB and the support required by the patient undergoing treatment can help fight the stigma, encourage people to get screened for co-morbidities like HIV, and provide a supportive environment for the patient's recovery.

3. STRATEGIC PURCHASE OF PRIVATE SECTOR SERVICES SUCH AS DIAGNOSTICS AND TREATMENT

Providing free-of-cost diagnostics and treatment to patients increases the accessibility and affordability of quality TB care, while also reducing their out-of-pocket expenditure. The introduction of vouchers for purchasing drugs and services, such as chest X-ray, helps reduce the likelihood of patients incurring healthcare costs when approaching private sector labs and chemists , and reduces health system delays. These vouchers also help improve the efficiency and real-time tracking of service utilization.

Vouchers are a store of value that entitles a patient to free TB-related service such as chest X-ray and co-morbidity screening, or government approved fixed-dose combination (FDC) of TB drugs from an empanelled private provider.

Consider using new digital payment mechanisms, such as e-RUPI, that provide prepaid vouchers in the form of an SMS or a QR code that allows the user to redeem services. e-RUPI is a cashless and contactless digital mechanism developed by the Government of India in 2021 and can be utilised for quicker and transparent DBT to beneficiaries. The TB programme may consider deploying e-RUPI for strategic purchase of private provider services such as chest X-ray screening and making these available to patients.

4. IMPROVING INTERNAL DATA MONITORING TO EXPEDITE PAYMENT VALIDATION BY THE NTEP

Organisations must introduce mechanisms for internal data quality checks. This helps agencies streamline data validation which is important for timely payments to CBOs who are often resource-constrained. Moreover, reporting quality data also helps the agencies maintain their credibility in the ecosystem.

Consider the use of technology for regular internal data validation.

5. PROGRAMME MANAGEMENT

- Regular performance assessment helps organisations identify prevailing challenges in operations and support required by the staff members. It also helps them undertake corrective action such as re-training and additional staff deployment, as applicable.

- Given that the PPSAs are contracted for an output-based model, it is of interest to them to link their staff's performance to target achievement. It helps the agencies track progress towards the contractual targets.

This compendium proves the merits of engaging with the private sector for TB elimination across the country. While the various models can be adapted according to contextual needs, they showcase how private sector engagement is crucial to make progress towards the goal of standardised and affordable TB care and TB elimination. These innovations and best practices must be adapted according to best fit to solve local challenges and improve service delivery in not just TB programme but other disease programmes in the country. The compendium underlines the potential of public private partnerships for the healthcare sector.

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