



Health Systems for Tuberculosis (HS4TB)

Patient Provider Support Agency Standard Operating Procedures

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About HS4TB

The USAID Health Systems for Tuberculosis (HS4TB) project seeks to transform the way country leaders and health system managers understand and work toward TB control and elimination. HS4TB is a five-year USAID contract focusing on health systems priorities that most directly support achievement of TB outcomes, with a focus on health financing and governance in the USAID TB priority countries. The project helps countries increase domestic financing, use key TB resources more efficiently, build in-country technical and managerial competence and leadership, and support policy formation and dissemination. HS4TB is led by Management Sciences for Health (MSH) in partnership Open Development.

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ACRONYMS AND ABBREVIATIONS

CME	continuous medical education
DR-TB	drug-resistant TB
DS-TB	drug-sensitive TB
FDC	fixed-dose combination
HR	human resources
JEET	Joint Effort for Elimination of TB
NTEP	National TB Elimination Programme
PHI	public health institution
PIU	Partnership and Innovation Unit
PPSA	Patient Provider Supporting Agency
SCT	specimen collection and transport
SOP	standard operating procedure
STSU	State Technical Support Unit
TB	tuberculosis
TBNR	TB Notification Register
UDST	universal drug susceptibility testing

EXECUTIVE SUMMARY

Recognizing the importance of private-sector participation in TB elimination, the National TB Elimination Programme (NTEP) introduced a major shift in its approach to private-sector partnerships. The Patient Provider Support Agency (PPSA) model is the most frequently used partnership option under this new paradigm shift to collaborate with the private sector under the NTEP. Under the PPSA model, a third-party agency/nongovernmental organization is selected by a state/district/city NTEP unit to engage private-sector health care systems treating TB patients and provide end-to-end services such as diagnosis, notification, patient adherence and support, and treatment linkages. The third-party agency is selected as per the contracting procedures set by the respective state national health missions.

Lack of guidance on standard processes related to human resources (HR), performance management, and reporting have led to operational challenges at the PPSA level. This document lists out the standard operating procedures (SOPs) for onboarding PPSA to serve as an interface between the NTEP and private-sector health care. The document intends to educate PPSA staff on the context, significance, objectives, key functions, and roles and responsibilities of PPSAs. The SOP also explains monitoring and evaluation needs and data collection tools used to track key performance indicators. Additional guidance on the process for calculating invoices and performing verification and validation of claims is provided. Finally, the document provides suggestive scopes of work for various PPSA staff positions in this partnership with the NTEP.

It is imperative that PPSA staff are well versed on TB and on the NTEP's services, including diagnosis, treatment, supportive care, and prevention. Information pertaining to TB and its prevalence in India, India's TB journey, the NTEP organogram, and treatment and management of TB can be found at <https://tbcindia.gov.in/WriteReadData/NTEPTrainingModules1to4.pdf>.

INTRODUCTION: PATIENT PROVIDER SUPPORT AGENCY

TB is the 13th leading cause of death globally and the 7th leading cause of death in India; an estimated 506,000 (5.06 lakh) people died of TB in India in 2021.¹ India accounted for 32% of TB deaths worldwide and 40% of the global decline in TB notifications between 2019 and 2021 due to the disruption in services caused by the COVID-19 pandemic. Despite these realities, India has stepped up to the challenge—2.1 million (21 lakh) people with TB were diagnosed and notified in the country in 2021—a 19% increase over the previous year. It is noteworthy that about one-third of these 2.1 million notifications were from the private sector, underscoring the importance of this sector in India's TB elimination goals.

A recent national prevalence survey found that 51% of TB patients (irrespective of their financial capacity) seek care from the private sector as the first point of contact.² A significant proportion of those seeking TB services from the private sector have less-than-desirable experiences, including high out-of-pocket payments. Patient pathways can be very complicated, with a wide range of unwanted components that include multiple visits to different care providers, delayed (or missed) diagnosis, and variable treatment courses not in line with approved guidelines that lead to significant out-of-pocket expenditure. It is essential that the public and private health care sectors work together to ensure that all patients accessing care in the private sector receive services in line with NTEP guidelines for diagnosis and treatment. There are some programmatic gaps in services for people seeking care under the public sector. To address these, private-sector capacity (e.g., diagnostic capacity, clinical expertise, HR, logistic capacity, supply chain management expertise) can be effectively leveraged to ensure that people seeking care from the NTEP receive uninterrupted, high-quality services at locations that are convenient for them.

NTEP units at the state/district/city levels are contracting PPSA as a third-party agency/nongovernmental organization to engage the private-sector health care system to treat TB patients and provide end-to-end services such as diagnosis, notification, patient adherence support, and treatment linkages. This document lists the SOPs developed to assist the NTEP and PPSA with their processes. These SOPs are based on the scope of work of the PPSA and its contracts with the NTEP.

¹ Global Tuberculosis Report 2022 (who.int)

² International Institute for Population Sciences and ICF Mumbai, India: IIPS; 2017. National Family Health Survey (NFHS-4), 2015–16.

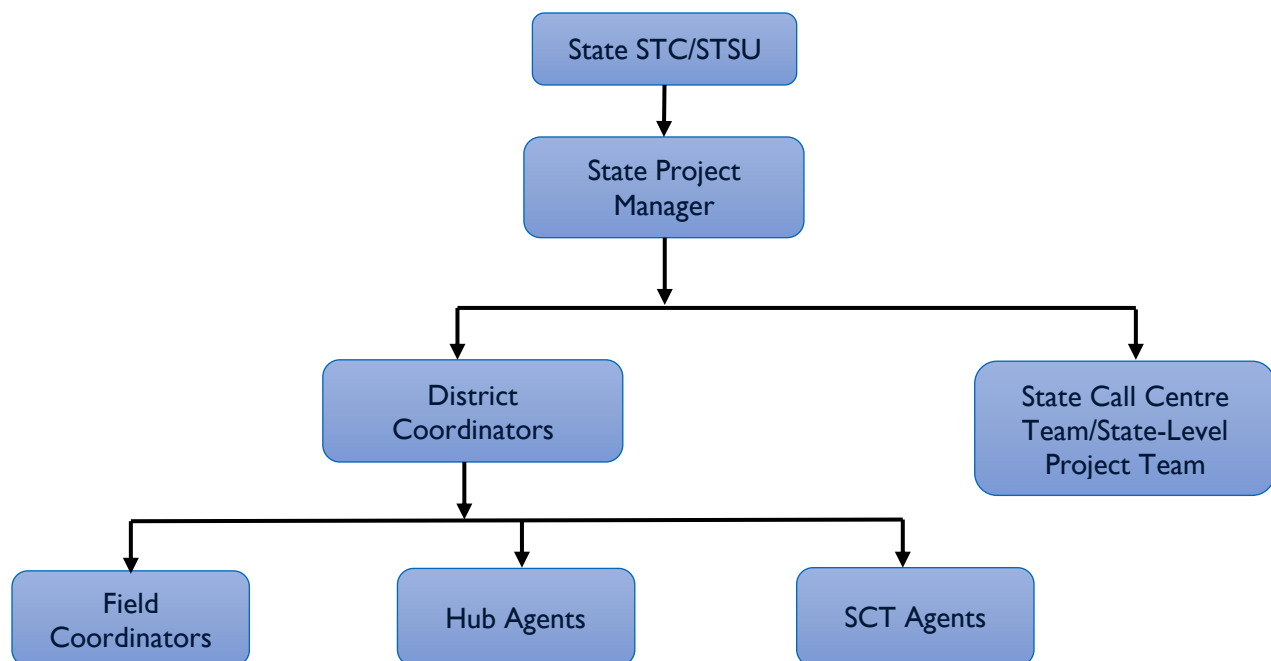


Figure 1. PPSA organogram

See Annexure I for the roles and responsibilities of PPSA staff regarding sample collection and support.

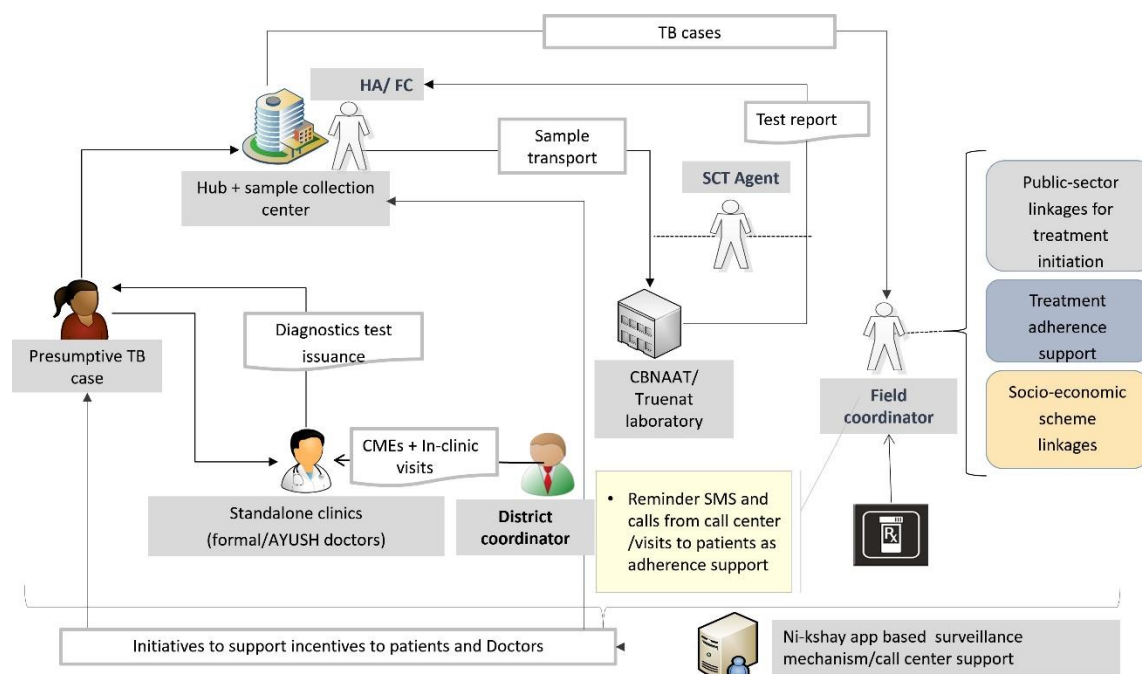


Figure 2. PPSA service delivery model

Note: Depending on the needs of the project, field coordinators in some of the districts act as hub agents in addition to SCT roles.

SCOPE OF WORK

The scope of work for PPSA includes:

- Engaging private health care providers (e.g., listing, mapping, prioritization, training)
- Ensuring timely and complete notification of confirmed private-sector TB patients in the Ni-kshay portal. Ni-kshay is the web enabled patient management system for TB control under NTEP.
- Facilitating private-sector patients' access to diagnostic services through the NTEP and private labs
- Facilitating private-sector patients' access to TB drugs supplied by the NTEP
- Facilitating private-sector patients' and providers' access to the Ni-kshay Poshan Yojana incentive scheme, the incentive payments, and other benefits for which they are eligible under the NTEP
- Supporting TB patients throughout the continuum of care, including treatment adherence support to ensure treatment completion
- Screening of household contacts for TB infection and preventive therapy according to NTEP guidelines
- Monitoring, evaluation, and learning to innovate and adjust tactics and strategies to maximize performance

OBJECTIVES OF ENGAGING WITH PPSA

A key objective of a PPSA is to set up effective and sustainable structures to strengthen TB-related health systems and quality TB care to patients seeking care in the private sector. This is expected to help address inefficiencies in the patient care cascade while building TB program management capacity for both the PPSA staff to implement the expected activities and the NTEP staff to ensure that the implementation by PPSA adheres to the contractual agreements.

Key activities of the PPSA include:



Developing insights into private-sector participation by conducting mapping and prioritization of private-sector health care providers for sustainable partnerships



Facilitating state-wide access to NTEP-approved and affordable TB diagnostics through access to public and private lab networks for increased notifications and quality diagnosis for patients seeking care



Facilitating access to treatment, public health actions, and adherence support systems for patients seeking care in the private sector

PPSA: KEY FUNCTIONS, ROLES, AND RESPONSIBILITIES

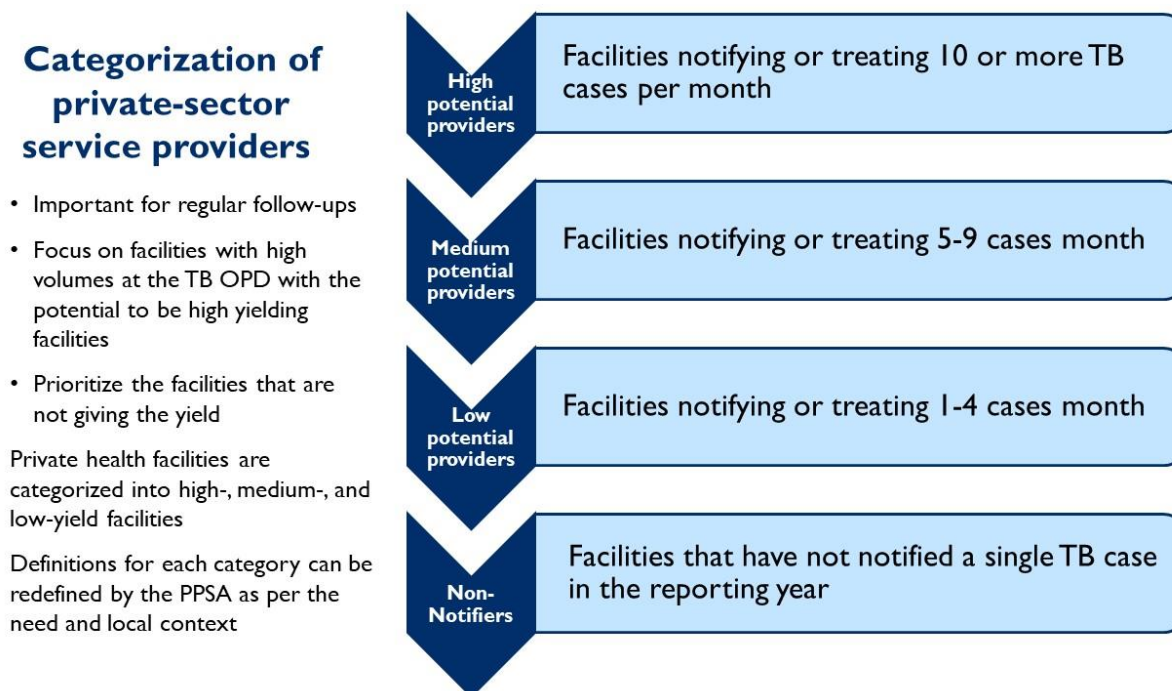
A PPSA covers the entire spectrum of provider engagement and patient support services, including diagnostic linkages, drug linkages, treatment adherence support to ensure treatment completion, facilitating notification, and provider and patient incentives.

I. Engagement with private-sector health providers

The PPSA's district coordinator will:

- Conduct a landscape analysis on where and how private-sector providers are involved in the TB care cascade (e.g., private clinics; hospitals; Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy practitioners; informal providers; pharmacies; laboratories)
 - This analysis includes reviewing existing data and gathering insights by interviewing professional associations, pharmacies, laboratories, patient support groups, and nongovernmental organizations. The Schedule HI register may also help identify key providers (mapping).

- Identify key or priority providers and target them for engagement. An escalation matrix could be used to engage providers (micro planning).
- Ensure that a comprehensive information, education, and communication plan is in place (e.g., communication with providers for notification, referral, linkages for diagnostics and treatment services and patient support through continuous medical education [CME] and in-clinic visits).
- Provide information and communication material (e.g., NTEP guidelines, Standards for TB Care in India, process of notification and linkages, patient benefits, consumables)
- Train and sensitize assistants to private-sector providers on procedures for notification and linkages
- Provide doctors with regular feedback about the status of support services (e.g., public health actions) for their patients



2. **Notification:** The agency will support, train, encourage, and advocate for notification of confirmed TB patients in Ni-kshay. If the NTEP and private-sector providers are using paper-based reporting, the PPSA field coordinator will compile notifications from private health establishments in the prescribed format and enter all information into Ni-kshay.
3. **Specimen collection and transport (SCT):** Given the challenges in public health system service delivery, it is common that samples are collected from hubs or spokes and transported to NTEP laboratories on certain days. A more efficient SCT system is needed.
 - A hub agent collects sputum samples from presumptive drug-sensitive TB (DS-TB) and drug-resistant TB (DR-TB) patients or from follow-up patients referred from the outpatient

department of a private health facility (hub/spoke), linked facilities, and the community. Two samples are required when smear microscopy is used for diagnosis, while a single sample is needed for a cartridge-based nucleic acid amplification test (CBNAAT)/Truenat. If a specimen is positive by any of these methods, the case is labelled as microbiologically confirmed TB. The hub agent ensures packing of samples in triple layers, accurate labelling, and a complete lab request form.

- The hub agent ensures that there is an appropriate facility to store samples in case of delays in transport.
 - The hub agent coordinates with the SCT agent for sample collection and timely results.
 - The hub agent enters all presumptive TB patients into Ni-kshay within 24 hours.
 - The SCT agent transports the samples from identified sample collection centres to the linked TB laboratory in specimen transport boxes with accurate labelling.
 - The SCT agent conveys results to the collection centre (hub/spoke)
 - The register for documenting the samples collected, transported, and tested and the results received are maintained by the hub agent.
4. **Fixed-dose combination (FDC) drug supply and dispensation:** As mandated by the NTEP, the PPSA team coordinates with NTEP staff of nearby government health facilities to procure and provide FDC drugs to private-sector TB patients at no cost as mandated by the NTEP. The district coordinator advocates with site doctors to encourage FDC uptake for TB patients and forecasts FDC drug requirements to ensure on-time refills to maintain uninterrupted availability of medicines to patients. Hub agents maintain stock registers and share details with NTEP staff on a monthly basis.
5. **Public health action: Field coordinator to carry out public health actions** (e.g., HIV testing, diabetes testing, drug susceptibility testing, contact investigation, chemoprophylaxis, adherence support, Ni-kshay Poshan Yojana and treatment outcome reporting of TB patients, updating Ni-kshay). Patient follow-up is also supported by a call centre.
- a. **Counselling and adherence support by field coordinator/hub agent/call centre:** Counselling is important to help with emotional and behavioural concerns that may arise because of the stress of being diagnosed with and treated for TB, including lack of knowledge, loss of income, stigma and lack of social support, drug side effects, and long treatment durations, which can be significant barriers to treatment adherence for many patients. The PPSA is mandated to counsel TB patients during the course of treatment; support patients in situations where there is a change in routine that could impede continued treatment; ensure assessment of adherence for patients on treatment by pill counting and refill monitoring; identify adverse drug reactions and ensure they are managed effectively; bring back patients

on treatment if treatment is interrupted; update treatment outcome on patient physical records/on Ni-kshay; and use digital technology such as 99DOTS/MERM for treatment adherence support and improved TB outcomes.

b. Contact investigation and preventive treatment by field coordinator

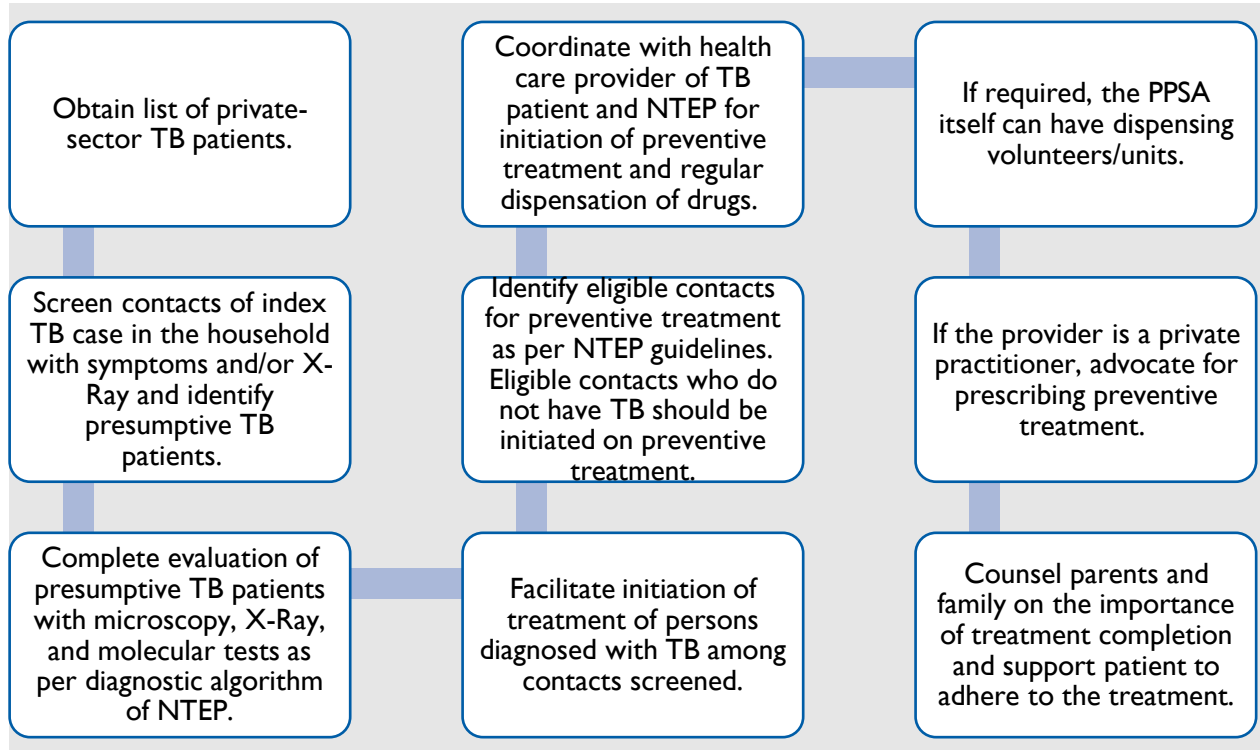


Figure 3. Responsibilities of the field coordinator for contact investigation and preventative treatment

- c. **HIV and diabetes testing:** The field coordinator needs to ensure that TB patients undergo diagnostic testing for HIV and diabetes at or before treatment initiation or soon after treatment starts. Early detection of co-morbid conditions will help define a treatment course that may reduce morbidity and mortality. Based on the preferences of treating doctors and patients, these tests are to be carried out in either public- or private-sector laboratories. The field coordinator captures the results and updates Ni-kshay.
- d. **Universal drug susceptibility testing (UDST) and linkages for DR-TB treatment:** The field coordinator will follow up with patients to deposit the sample at a hub/spoke to carry out UDST through public-sector labs. If the testing was done by a private-sector lab, that information needs to be updated in Ni-kshay. If a patient is found to have DR-TB, the field coordinator should provide that information to the treating doctor and patient. Ideally the patient should be referred to a public DR-TB centre for pre-treatment evaluation and treatment initiation.

e. Ni-kshay Poshan Yojana

- The hub agent/field coordinator provides information about Ni-kshay Poshan Yojana benefits to all notified TB patients.
- The hub agent/field coordinator collects the bank details of TB patients, provides that information to the TB Unit, and inputs it into Ni-kshay after verification. They facilitate opening of a bank account if a patient does not have one.
- The hub agent/field coordinator coordinates with NTEP staff to release Ni-kshay Poshan Yojana benefits and confirms that with the patient.

f. Facilitating incentive payments to private health establishments

- The district coordinator informs private health establishments about notification/referral/treatment outcome incentives as defined under the NTEP guidelines.
- The district coordinator/hub agent may collect bank account details of the doctor/ private health establishment and submit them to NTEP staff or update the information in Ni-kshay after verification.
- The district coordinator/hub agent coordinates with NTEP staff to release and confirm incentives of private health care providers.

MONITORING AND EVALUATION

The processes of monitoring and evaluation is intended to aid decision making toward explicit goals and help focus on results that matter while facilitating learning from past successes and challenges and those encountered during implementation. The state project manager and district coordinators will cross verify data entered into Ni-kshay by private providers against physical records and monitor progress by analysing Ni-kshay data. They can also regularly prepare and submit reports to concerned authorities.

Data collection tools

Hub Register	Nikshay Portal
<ul style="list-style-type: none"> • Standard data collection tool developed for use across all project sites for uniformity • Collects information such as patient demographic details, service delivery details, and information related to key indicators as per project mandate • Hub agent will follow up with the patient for cascade services and update information in the register 	<ul style="list-style-type: none"> • Every district will be provided with a PPSA login for staff at the district level to enter presumptive TB and TB diagnosed case details • Ni-kshay is the official source of information for monitoring and review of project progress • All cases should be updated in the portal in a regular, timely manner

Table 1. Monitoring indicators for staff

Key Indicator	Data Source	Data Entry Person
Total TB notification	1. Prescribed format for notification 2. Hub agent register	Hub agent/field coordinator/district coordinator
% of patients notified within seven days of receiving a confirmed diagnosis	1. CBNAAT test report 2. Provider prescription 3. Hub agent register	Hub agent/field coordinator
% of cases whose sample was transported for testing within one working day of collection	1. Hub agent register 2. SCT register	Hub agent
% of notified cases with successful treatment outcome	Prescription	Field coordinator
% of patients initiated on FDC within seven days of notification	Prescription details	Hub agent/field coordinator

Monitoring indicators for district coordinator

The district coordinator will collect and compile the following information from field coordinators and hub agents on a monthly basis:

- Number of providers visited at least once a month
- Number of total provider visits made (including repeat visits)
- Percentage of active formal private providers in a month (providers are defined as active if they prescribe either CBNAAT or FDC through the NTEP or notify at least one TB positive case in one month)
- Number of TB cases (all forms) notified from the private sector
- Percentage of notified patients prescribed FDC

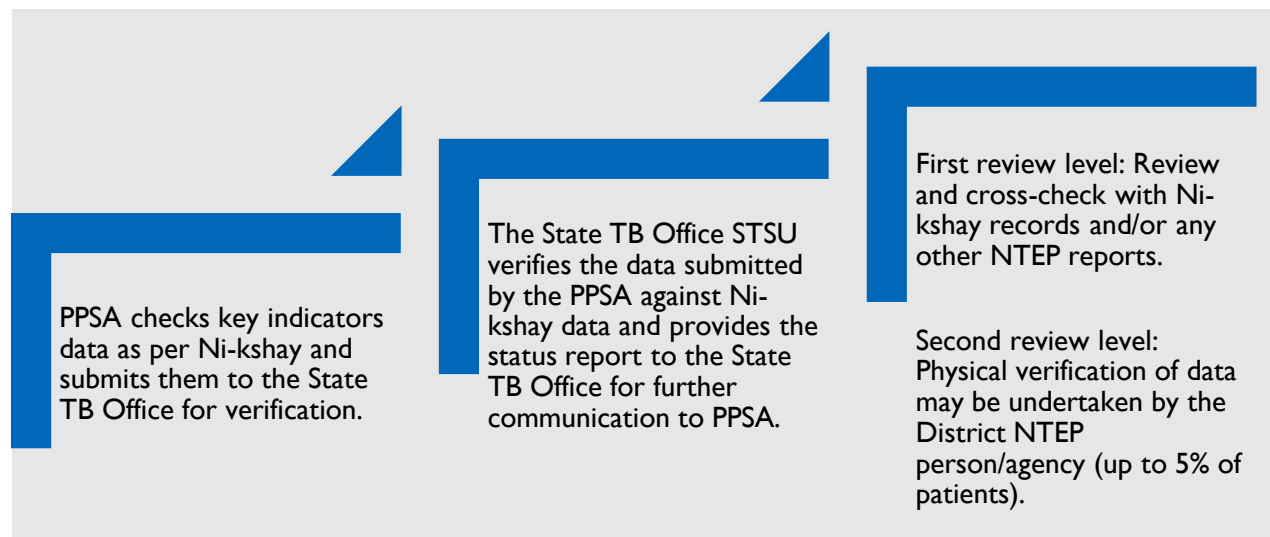
Table 2. Key PPSA project indicators from an illustrative MOU signed with Bhavya

S. No.	Indicator	Numerator	Denominator
1	Number of TB patients notified	Number of TB patients diagnosed and notified in Ni-kshay	Number of TB notification targets provided by project (as per work location/district)
2	UDST (within a week)	Number of diagnosed TB patients tested/submitted sample for UDST within seven days of diagnosis date	Total notified TB cases in Ni-kshay for given period and location (all notified TB cases are eligible for UDST, including extrapulmonary TB)
3	UDST 1–2 weeks 2–3 weeks	Number of TB patients who underwent UDST 1–2 weeks from diagnosis date Number of TB patients who underwent UDST 2–3 weeks from diagnosis date	Total TB patients who tested for UDST in a given period and location Total TB patients who tested for UDST in a given period and location
4	Validated bank account details for notified TB patient and treating physician	Number of TB patients' bank account details uploaded and validated in Nikshay for direct benefit transfer	Number of TB patients notified and on treatment in a given period and location

S. No.	Indicator	Numerator	Denominator
		Number of private health facilities'/health providers' bank account details uploaded and validated in Ni-kshay for direct benefit transfer	Number of private health facilities/ health providers of notified TB cases in a given period and location
5	HIV testing of notified TB patients	Number of TB patients who underwent HIV testing	Total notified TB patients in a given period and location
6	Diabetes mellitus testing of notified TB patients	Number of TB patients tested for diabetes	Total notified TB patients in a given period and location
7	Chemoprophylaxis and contact tracing	Number of TB index patients' houses visited and contact tracing done Number of household contacts initiated on chemoprophylaxis/TB preventative treatment	Total notified TB patients in a given period and location Number of index patient contacts identified as eligible for TB preventative treatment
8	FDC uptake	Number of TB patients seeking treatment in the private sector and getting government FDCs	Number of TB patients notified in the private sector
9	Successful outcomes of the notified TB patients	Number of TB patients who completed TB treatment successfully (includes treatment completed and cured)	Number of TB patients initiated on TB treatment

Data quality audits: District coordinators should verify the data reported by the hub agent and field coordinator and randomly call or visit a few patients to check for any inaccurate reporting. Similarly, the project manager should check data quality by visiting patients randomly to confirm services being provided. The State Technical Support Unit (STSU)/Partnership and Innovation Unit (PIU) will train and support the PPSA in conducting data quality audit visits and guide the team in ensuring data quality.

VALIDATION AND VERIFICATION OF KEY PERFORMANCE DATA



If a mismatch in data is found during verification, the assigned penalties may be applied and may be adjusted in payments made in subsequent quarters.

Calculating invoices by PPSA: Invoice calculation is based on Ni-kshay reports. Reports to be used for invoice calculation, based on agreed indicators, include:

- The TB Notification Register (TBNR) (diagnosed facility) will be downloaded to calculate notification pay out. The TBNR (diagnosed facility) captures IDs from which enrolment is done in Ni-kshay and tracks and segregates notifications entered by the PPSA.
- Only patient IDs enrolled through Ni-kshay login IDs allocated to the PPSA and diagnosed with TB will be considered. The enrolment register also contains presumptive TB cases, which will not be considered for pay out.
- The TBNR (current facility) is to be considered for pay out for all indicators except notification. This TBNR (current facility) captures notified cases in non-PPSA districts or from public health institutions (PHIs) that were later transferred to PPSA districts.
- Patients who are taking NTEP FDC drugs are considered for the performance measurement. FDC consumption is to be calculated using the dispensation register from Ni-kshay.
- UDST is calculated using the lab register. It is considered if the test result is updated for CBNAAT/Truenat/first line-line probe assay/second line-line probe assay/culture tests in the lab register.

Process of calculating invoices

- Add patient-wise FDC consumption and UDST status to the TBNR (current facility), which is linked to the pay out calculation sheet.
- Link the incentive calculation sheet to both TBNRs to derive the invoice amount for a particular district/cluster.
- For notified cases by the PPSA that are transferred out later to non-PPSA districts or to a PHI/government health facility, add/delete notified cases and the services rendered by the PPSA to the TBNR (current facility).
- Highlight such changes in the sheet. Incentives for transferred-in cases that were notified in a non-PPSA district are not to be claimed, but services rendered may be considered.
- There may be cases where the PPSA provides public health action to cases notified by doctors/private health facilities/PHIs residing within the PPSA district. If public health action is to be taken by the PPSA, incorporate and highlight claims for such services rendered.
- Submit the detailed calculation Excel sheet with the invoice.
- Reconcile achievements submitted on a quarterly basis or at the end of the financial year/fourth quarter (table 2).

Verification and validation of claims

- Conduct quarterly verification through patient interviews (including physical verification) and record reviews for 5 percent or 10 TB patients (whichever is higher) for each milestone indicator. If the actual number of patients is less than 10, verify all patients.
- For each case of ineligible claim identified during the verification process, deduct a penalty five times the quoted fee per patient from the invoice.
- Payment will be subject to tax deducted at source as per income tax rules and other statutory deductions as per applicable laws.

Payment will be done based on milestones as per the agreed payment schedule, milestone indicators, and performance indicators. The suggested matrix developed for Telangana can be found in **Annexure II**.

There is a separate SOP for the invoicing, verification, and validation processes for PPSAs, supplemented by Excel workbooks for invoice calculations and tracking verifications. This tool can be found at on the Central TB Division Website pending approval.

NI-KSHAY MODULES (INDICATORS WERE TAKEN AS PER MOU DOCUMENT)

New enrolment

Presumptive TB patient details should be entered into Ni-kshay on the New Enrolment page, which captures basic information such as address/residence, demographic data, symptoms, risk factors, and contact details of the patient. The patient's Ni-kshay ID will be generated after enrolment and is used while entering other case details in the Ni-kshay portal.

Diagnostics

Once the details are updated under New Enrolment, tests conducted for the patient can be updated under Add Test.

Tests done on the patient should be entered in the Diagnostic section. Test details like reason for testing and test type should be updated to proceed further. Place of test done and facility test details are mandatory. Test results should be updated along with the final interpretation.

Patient management

The following sections are available under the Patient Management tab:

- *Diagnosis pending*: Patients with pending test details can be searched and updated here.
- *Not diagnosed as TB*: Patients who have been tested and found to be negative for TB can be accessed here.
- *Treatment not started cases*: Cases confirmed as TB and not started on TB treatment can be identified and followed for initiation.
- *On treatment list*: Patients diagnosed with TB and started on TB treatment can be viewed here for cross checking status.
- *Outcome assigned*: Patients started on TB treatment whose outcome is assigned can be viewed here.

Adherence summary

Patients on TB treatment should be regularly monitored for drug adherence through 99DOTS, MERM, or another method. The facility/NTEP/nongovernmental organization staff can monitor drug adherence of patients through the summary dashboard.

Patient transfer

Patients diagnosed in the public or private sector can access TB treatment at their choice of facility. According to patient choice and treatment option, cases could be transferred to public or private facilities.

Ni-kshay reports

Data entered into the Ni-kshay modules can be accessed through Ni-kshay reports. There are two types of reports: consolidated reports and patient-wise reports. Instructions and screen shots to assist with using Ni-kshay can be found in **Annexure III**.

ANNEXURE I: ROLES OF PPSA TEAM MEMBERS

District Coordinator

Overall responsibilities and mandate:

- Lead day-to-day operations and manage project team
- Set up processes in line with NTEP operational model
- Conduct long-term planning, including ensuring operational excellence in implementation
- Oversee overall financial management, planning, systems, and controls
- Allocate available human resources per planned activities
- Identify training needs for project staff and coordinate training workshops
- Coordinate/communicate with field coordinators, hub agents, and SCTs from state project teams
- Share project data with district TB unit periodically as per discussion with city TB officer/district TB officer and instructions received from state project teams
- Manage project deliverables within stipulated deadlines
- Monitor and evaluate project performance against indicators and provide periodic status reports to project director
- Improve operational systems, processes, and policies to support the PPSA's mission
- Supervise and increase effectiveness of support services (e.g., finance, HR) through constant improvements
- Monitor data management and reporting mechanisms
- Organize CME:
 - Identify the number of providers who will attend the CME, identify speaker(s) for the CME, and finalize the CME topic in consultation with the field coordinator/hub agent
 - Collate and share details on number of participants and logistics requirements conveyed by the field coordinator with the district coordinator
 - Support the identification and booking of venue and arranging food and beverage, printing of material, and any other activity related to efficiently delivering the CME trainings (note: the honorarium of speakers [if any] is processed by the accounts assistant)
 - Ensure that attendance records are maintained and archived
- Management of sample transport:
 - Assess the load of the samples per day and discusses with the District TB Control Officer for linking to respective nearby facilities for CBNAAT testing
 - Monitor the number of samples sent for CBNAAT testing and turnaround time for processing the sample and sharing results with presumptive TB cases

State Project Manager

- Deploy staff with appropriate and adequate skills
- Train staff in coordination with the NTEP team on various programmatic and operational aspects, roles and responsibilities, and skills development/enhancement
- Act as an interface between the NTEP and the project team
- Liaise with and update state- and district-level government leadership about project activities
- Ensure real-time data entry and updating of TB patient rosters in Ni-kshay
- Develop and disseminate information, education, and communication material targeted at private-sector health care providers
- Forecast procurement and logistics (e.g., Falcon tubes, containers, Form 15 A) for diagnostics and free drugs from the NTEP and coordinate with the NTEP on a regular basis
- Develop, implement, and maintain sound organizational practices
- Manage strategic aspects of stakeholder engagement/partnerships and mitigate risk
- Review high-level project deliverables
- Ensure monthly/quarterly/annual reviews, quality assurance procedures, and technical input to district coordinators and project teams
- Coordinate financial audits

Field Coordinator

- Prepare a route map for collection of samples notified to them and submit the samples to the nearest CBNAAT facility or facility assigned to private-sector cases
- Have a proper sample transportation kit to prevent any sample leakage and maintain cold chain for linking the samples to the CBNAAT facility
- Collect the basic patient details required for Ni-kshay registration and processing of samples
- Register presumptive TB cases in the Ni-kshay app
- Counsel presumptive TB patients on proper sputum expectoration. For pulmonary cases, provide the sputum container and a time to bring the sample to the hub; extra-pulmonary cases will be directed by the doctor to schedule an appointment with the concerned hospital for sample extraction
- Cultivate the channel of information exchange with the practitioner, who can choose to either retain or refer presumptive TB cases to the hub (for presumptive TB case, the practitioner fills up referral slip and informs the hub agent/field coordinator about it via WhatsApp/SMS/voice call, etc.)
- Inform the hub agent about any referral slips left unsent
- For a test request by the provider, a referral slip (top half for test request for presumptive cases and bottom half for notification of confirmed cases) is used. The provider will fill out the top half of the referral slip (which will have details of the test and sample type). The

presumptive TB case then will present the referral slip to the hub agent along with the sample; the hub agent will keep the referral slip to update the MIS and then return it to the presumptive TB case along with the test report.

- At the hub, provide sputum containers to presumptive TB cases with information about when and how to obtain a sample and where to submit it
- At the spoke, give the provider case details so they can provide sputum containers to presumptive TB cases. The provider will give case details to the hub agent. The presumptive TB case will visit the hub the next day along with the sample before the cut off time, which the practitioner and hub agent will provide.
- Ensure sample deposition by the presumptive TB case at the hub and follow up with presumptive TB cases, including those referred by spokes, to ensure sample deposit; any failure in depositing samples should be notified to the respective provider and retrieval calls should be made
- Check the quality and quantity of the sample; if another sample is required from the presumptive TB case, ensure that it is deposited
- Inform and coordinate with the SCT agent for sample collection and report submission on a daily basis as per agreed schedule in each district (i.e., samples collected before the cut off time will be transported the same day as per sputum transport guidelines)
- Accurately label all samples upon receipt
- Complete the NTEP Annexure M requisition form and gives it to the SCT agent
- Track all samples deposited at the hub, samples sent for CBNAAT, and reports received to ensure that all processes are carried out in a timely manner
- Advise presumptive TB cases to visit the referring provider for follow-up visits after delivery of the report by SCT agent or hub agent and record diagnostic details of samples sent for CBNAAT in the MIS application
- Keep track of requisite diagnostics inventory (e.g., sputum cups, masks, gloves, stickers) with hub agent, SCT, and field officer

With regard to test management:

- Record test result report in the Ni-kshay portal
- Post presumptive TB case consultations with the doctor, collect information from the field officer on TB diagnosis, and enters requisite details related to notification of patients in the Ni-kshay app
- Ensure that details of all presumptive TB cases are received from the provider within seven days and are closed (either confirmed TB case and notified or not TB) by actively following up with the provider and with patients in cases where patients don't visit the provider
- Maintain notification referral slips from spokes
- After delivery of report to the practitioner by the STC agent, the hub agent will instruct the patient to visit the practitioner. The field officer will ensure that the third part of the

referral slip is filled and transport it to the hub agent. The field officer and hub agent will try to develop a working relationship for this communication to happen electronically

SCT Agent

The SCT system is designed to ensure the seamless collection of sputum samples from symptomatic patients and delivery to accredited laboratories for microbiological testing for tuberculosis. The system is staffed by a cadre of SCT agents and a coordinator who collect samples from pre-appointed collection centres, including Designated Microscopy Centres and medical colleges, and deliver them to labs for confirmatory tests including the CBNAAT, Line Probe Assay, and cultures.

The SCT agent has the following mandate while transporting samples:

- Arrive at the hub for sample collection every day at a specific time
- Ensure availability of cold chain for transport of samples
- Verify Annexure Form I and sample labelling
- Segregate samples in coordination with the hub agent/field coordinator based on laboratories engaged
- Transport the samples along with the NTEP Annexure Form I to the assigned public-sector CBNAAT laboratory within 24 hours of sample collection
- Coordinate with other SCT agents for samples redirected to other CBNAAT machines
- Collect test reports from the laboratory and take them to respective hub/collection centres
- Deliver the test report to respective spoke practitioners within 24 hours of receiving the report from lab
- Ensure availability of sputum containers at the spoke
- Record details of all samples and test reports transported in the lab register

ANNEXURE II: MATRIX ON MILESTONE INDICATORS AND PERFORMANCE INDICATORS (DEVELOPED FOR TELANGANA STATE)

Payment amount (% of invoice amount)	Milestone Indicator	Performance Indicator
20%	Number of TB patients notified	<ul style="list-style-type: none"> For achievements above 90% of TB notification targets, 20% of payment amount (linked to milestone indicator) will be paid For achievements at or below 90%, payment will be made on a pro-rata basis
15%	UDST	<ul style="list-style-type: none"> Within one week of TB notification, UDST needs to be undertaken For achievements above 80% of TB notification targets, 15% of payment amount (linked to the milestone indicator) will be paid For achievements at or below 80%, payment will be made on a pro-rata basis
10%	UDST not completed within one week shall be completed within two weeks (7%) or three weeks (3%)	<ul style="list-style-type: none"> For achievements above 80% of TB notification targets, 10% of payment amount (linked to the milestone indicator) will be paid For achievements at or below 80%, payment will be made on a pro-rata basis
10%	Validated bank account details for the notified TB patients and treating physician	<ul style="list-style-type: none"> For achievements of 100% validation of bank account details of notified TB patients and treating physician, 10% of payment amount (linked to milestone indicator) will be paid For achievements below 100%, payment will be made on a pro-rata basis
5%	HIV testing of notified TB patients	<ul style="list-style-type: none"> For achievements of 100% of TB notification targets, 5% of payment amount (linked to the milestone indicator) will be paid For achievements below 100%, payment will be made on a pro-rata basis
5%	Diabetes testing of notified TB patients	<ul style="list-style-type: none"> For achievements at 100% of TB notification targets, 5% of payment amount (linked to the milestone indicator) will be paid For achievements below 100%, payment will be made on a pro-rata basis
5%	Chemoprophylaxis and contact tracing	<ul style="list-style-type: none"> For achievements at 100% of TB notification targets, 5% of payment amount (linked to the milestone indicator) will be paid For achievements below 100%, payment will be made on a pro-rata basis
10%	FDC uptake	<ul style="list-style-type: none"> For achievements above 60% of TB notification targets, 10% of payment amount (linked to the milestone indicator) will be paid For achievements at or below 60%, payment will be made on a pro-rata basis
20%	Successful outcomes of notified TB patients	<ul style="list-style-type: none"> For achievements above 90% of DS-TB and 75% of DR-TB notifications and targets, 20% of payment amount (linked to the milestone indicator) will be paid For achievements at or below 90% of DS-TB and 75% of DR-TB notifications and targets, payment will be made on a pro-rata basis

ANNEXURE III: INSTRUCTIONS AND SCREEN SHOTS TO ASSIST WITH REGISTERING A NEW HEALTH FACILITY IN THE NI-KSHAY SYSTEM

In Ni-kshay, the User Management section in the Admin module is used to register a new health facility. The Admin module is critical because it allows the creation of new users and management of existing users. Note that guidance on using other functions of Ni-kshay can be found in other tools, for the example the Private Sector Performance Review Dashboard.

The screenshot displays the Ni-kshay web application interface for health facility registration. The browser window title is "Part-1 of Health Facility Registration" and the URL is "https://www.nikshay.in/UserManagement/UserFacilityList". The left sidebar contains navigation options: Overview, Add Dispensation, Diagnostics, Patient Management, Ni-kshay Reports, Ni-kshay dashboard, Admin (highlighted with a green circle 1), User Management (highlighted with a green circle 2), Staff/TS Management, and Others. The main content area is titled "User Management" and shows a breadcrumb "Dashboard / User Management" (with a green circle 3). Below this, there are tabs: Facility Administration, Add Facility (highlighted with a green circle 3), Merge Health Facility, My Profile, and Reset Password. Under "Facility Administration", there are radio buttons for "Select Facility Level": District, TU (Tuberculosis Unit), and Health Facility (selected). A dropdown menu "Select Health Facility" (highlighted with a green circle 4) is open, showing options: PHI, Private Practitioner/Clinic etc.(Single), Hospital/Clinic/Nursing Home etc.(Multi) (highlighted with a green circle 5), Private Lab, and Private Chemist. A note "Can select anyone for each time" points to the dropdown. The bottom of the screen shows a Windows taskbar with the date 21-12-2022 and time 23:28.

State	District	TU
Telangana	Adilabad	Adilabad_DTC

Profile

Facility Name * Mandatory

Is Continue ☒ Yes ☐ No

National Hosp ID No. (NIN)

Private HF Registration No.

Contact Details

Contact Person Name

Contact Person Designation

Mobile Number Enter 10 digits valid mobile number.

Email

Complete Address This field is required.

Services Provided

10

Microscopy Service	<input type="radio"/> Yes <input type="radio"/> No	Are TB Drugs(RNTCP) stocked here?	<input type="radio"/> Yes <input type="radio"/> No
Truenat Lab	<input type="radio"/> Yes <input type="radio"/> No	Medical College	<input type="radio"/> Yes <input type="radio"/> No
CBNAAT Lab	<input type="radio"/> Yes <input type="radio"/> No	NUHM facilities (UCHC, UPHC, Urban Dispensary etc)	<input type="radio"/> Yes <input type="radio"/> No
X-Ray	<input type="radio"/> Yes <input type="radio"/> No	District DRTB Centre	<input type="radio"/> Yes <input type="radio"/> No
ICTC/FICTC/HIV Screening/Confirmation Facility	<input type="radio"/> Yes <input type="radio"/> No	Nodal DRTB	<input type="radio"/> Yes <input type="radio"/> No
CDST/ LPA Lab	<input type="radio"/> Yes <input type="radio"/> No	IRL	<input type="radio"/> Yes <input type="radio"/> No
DM screening/confirmation facility	<input type="radio"/> Yes <input type="radio"/> No	NGO	<input type="radio"/> Yes <input type="radio"/> No
Tobacco Cessation clinic	<input type="radio"/> Yes <input type="radio"/> No	Pediatric Care Facility	<input type="radio"/> Yes <input type="radio"/> No
ANC Clinic	<input type="radio"/> Yes <input type="radio"/> No	CGHS, Coal, ECHS, ESI, Labour, Mines, NTPC, Railways, Shipping	<input type="radio"/> Yes <input type="radio"/> No
Nutritional Rehabilitation centre	<input type="radio"/> Yes <input type="radio"/> No		
De-addiction centres	<input type="radio"/> Yes <input type="radio"/> No		
Prison	<input type="radio"/> Yes <input type="radio"/> No		
ART Centre	<input type="radio"/> Yes <input type="radio"/> No		

Login Information

11

Password

This field is required

Confirm Password

This field is required

Enter a password, it should be 8 character long and contain atleast, One Caps Letter, One Small Letter, One Number and One Special Character

+ SUBMIT

12

Key steps in the registration process:

1. Click on the Admin module to open the sections in the module
2. Select the User Management section
3. Choose Add Facility
4. Select Health Facility
5. Select the type of health facility being registered from the dropdown menu:
6. Private practitioner/clinic (single)
7. Hospital/clinic/nursing home (multi)
8. Private lab
9. Private chemist

- I0. Select the district the facility is in (district) will be auto populated based on user login details)
- I1. Select TB Unit to which the health facility belongs
- I2. Update profile details
- I3. Update details of contact person of health facility for any communications from the NTEP and stakeholders (note that the red coloured field(s) is to be filled and is mandatory)
- I4. Select types of services provided at the health facility.
- I5. Enter a password and press SUBMIT for registration. A Ni-kshay ID will be generated for the health facility and displayed as confirmation of registration.

ANNEXURE IV

SOP Implementation in Telangana and Results

SOP Implementation in Telangana and Results can be found at Annexure V

Introduction

The PIU in Telangana developed and implemented an SOP for the contracted PPSA to sensitize its staff on the context, significance, and role in this partnership.

The SOP was developed by the PIU in Telangana with support from representatives from SCT; World Health Organization consultants; medical officers; and the Public Health, Monitoring and Evaluation, Contracting, and Finance departments. The team conducted a thorough process analysis to identify critical steps and potential areas of improvement under PPSA interventions and drafted an SOP that incorporates processes, procedures, mapping, planning, activities, best practices, safety guidelines for SCT, compliance requirements, and operational challenges. The draft SOP was reviewed by HS4TB India and NTEP officials.

Implementation process

The SOP is referred to by PPSA as a process guidance tool, training tool for newly inducted members, and quality assurance tool. It helps maintain uniformity, consistency, and efficiency in processes and procedures by PPSAs in all districts.

A comprehensive training program was developed to educate PPSA staff on the SOP, followed by training sessions for hub agents, field coordinators, SCTs, district coordinators, data analysts, and state project managers. Continuous sensitization of PPSA staff is ensured through regular field visits, sensitization sessions, and periodic orientations.

The SOP is implemented across all 10 PPSA-implementing districts. A monitoring system has been established to track adherence to project activities as per the SOP and identify any deviations. Regular field audits and supportive supervisions are conducted to assess the effectiveness of the PPSA SOP. Periodic reviews/monthly meetings are scheduled to assess the need for updates or revisions to the SOP. Lessons learned from the field or deviations are used to continuously improve the SOP and associated processes under the PPSA intervention.

Results

- The implementation of the SOP resulted in a significant improvement in processes and activity implementation as measured qualitatively by staff interview responses as well as quantitatively through improvements in case notifications and the increase in subsequent public health actions conducted by the PPSA for TB patients.

- PPSA service delivery efficiency was enhanced, leading to reduced field-level problems with private providers and patients.
- The PPSA project team showed better compliance with NTEP standards and regulations.
- PPSA staff engagement and accountability improved.
- PPSA staff technical knowledge improved significantly under project implementation.