



# नौरङ्गव्यु पत्रिका

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## The decade of the lung

This new decade can rightly be called “decade of the lung”.

Lungs deliver a breath of life and are the most vital and fundamental of all organs in the body. “Prana Vayu” or the “life force” is the prerequisite source for the body organs to function and it permeates to all levels of the body. It is the gateway for good health. Yet, we have seen that it is the heart and other such organs that grab attention in the popular imagination.

If the lungs are not healthy, it affects the bodily function in a fundamental way. Environmental pollution is a major contributing factor to several respiratory disorders. COPD, asthma, lung cancer, acute respiratory infections, or pneumonia is affecting millions of people globally. COVID pandemic has shaken our lackadaisical attitude and has made us aware of how crucial the function of the lungs is and how we have taken it for granted for long.

We need to advocate and strengthen efforts to promote lung health for all so that an individual can enjoy the benefits of a good and healthy body. Prevention is better than cure. Therefore, effective preventative strategies and access to appropriate pulmonary health care is the need of the hour.

The government has immensely invested in TB research. The Indian Council of Medical Research and India Tuberculosis Research Consortium are jointly conducting next-generation research on diagnostics, therapeutics, vaccines, and other such critical areas. The government is conducting the world’s largest National TB Prevalence Survey with a massive sample size of 500 thousand.

We are aware of the dangers of Tuberculosis and its impact on the lungs and other parts of the body if left undetected and untreated. TB programme is effectively dealing with these challenges. The government has introduced several mitigative measures including bi-directional screening for TB-COVID and convergence in case finding efforts for TB-COVID in the country.

While the programme focus remains on reduced transmission, pulmonary rehabilitation is an emerging need of the hour. It requires a holistic treatment plan including medicinal treatment, lifestyle changes, physical rehabilitation, and palliative care. The programme is now extending its focus on pulmonary rehabilitation, as it can bring about high degrees of improvement in the quality of care for the patients.

Safeguarding lungs health should be our priority.

Dr KS Sachdeva  
(DDG, Central TB Division)

  
Editorial

# COVID-19 Pandemic in India: Loss or gain for NTEP?

Dr. Sudarsan Mandal

Tuberculosis and COVID-19 are infectious diseases which primarily attack the lungs. According to some studies based on genes, it has been presumed that the Tuberculosis was present in humans for at least 15000 years back. Throughout mankind’s history, the burden of Tuberculosis was impacted by major disruptions like natural disasters, war, and especially, epidemics. Some of these were, the 1)1889 Russian and 1918 Spanish influenza pandemics, 2) the First and Second World Wars, 3) the HIV pandemic in 1980, 4) the 2001 severe acute respiratory syndrome(SARS)outbreak in Hong Kong, 5) the 2013–2016 Ebola out breaks in West Africa, and 6) the 2014 Middle East respiratory syndrome corona virus (MERS-CoV) in Saudi Arabia, have all impacted TB programmes increasing the disease burden and mortality in the affected regions.

India has a double burden of communicable and non-communicable diseases and there are several national programmes for the diseases of public health importance. After COVID-19 swept the world including India, India’s public health infrastructures became flabbergasted and preparedness for the pandemics were questioned.

The negative impact of COVID-19 on country’s National Tuberculosis Elimination Programme (NTEP) has been substantial and decreases in TB case notifications after March, 2020. TB diagnosis and treatment coverage are ongoing challenges in high-burden settings like India. Unprecedented disruptions such as the COVID-19.

Pandemic magnifies the impact on-site challenges and restricted access to diagnosis and treatment. This can result in the escalation of TB-related morbidity and mortality rates. However, Government of India with the help of States/UTs and various partner organizations took ever all measures against COVID-19 to mitigate the effect of the pandemic, by strengthening public health infrastructures/health facilities, expansion of testing facilities for COVID, invoking Epidemic Diseases Act, 1897 leading to the temporary closure of educational and commercial establishments, Jan Andolan for COVID Appropriate Behaviors and development of anti-COVID vaccines like COVAXIN and COVISHIELD.

As mentioned earlier, Tuberculosis and COVID-19 are infectious diseases which primarily attack the lungs.

They present similar symptoms of cough, fever and difficulty in breathing; although TB disease



has a longer incubation period and a slower on set of disease. Studies have shown that the history of active as well as latent TB is an important risk factor for SARS-CoV-2 infection. This not only results in increased susceptibility but also rapid and severe symptom development and disease progression with poor outcomes. Tuberculosis is associated with a 2.1- fold increased risk of severe COVID-19 disease. Besides, TB patients also tend to have co-morbid or living conditions (malnutrition, diabetes, smoking, HIV etc.) that increase their vulnerability. To address this dual morbidity of Tuberculosis and COVID-19, the following activities are being carried out to find out missing TB cases:

- A. Bi-directional TB-COVID screening
- B. TB screening for Influenza-Like Illness (ILI) cases

### C. TB screening for Severe Acute Respiratory Infections (SARI) cases

Renewed focus on infection control will alter the transmission dynamics, particularly in health facilities. Dedicated Infectious Disease Hospitals that are being established as part of pandemic preparedness and response. This would contribute significantly to TB care and management. Availability of rapid molecular diagnostic capacities at block levels shall ensure decentralized drug resistant surveillance through reliable Universal Drug Susceptibility Testing (UDST). Bi-directional TB-COVID screening and screening for TB among ILI/SARI cases shall complement active tuberculosis case finding (ACF) efforts.

COVID-19 has given an opportunity to India to quickly create an enabling environment for high-quality research and innovation in various domains

of diagnostics, therapeutics, vaccines, alternate diagnostics, pharmacokinetics, and pharmacogenetics.

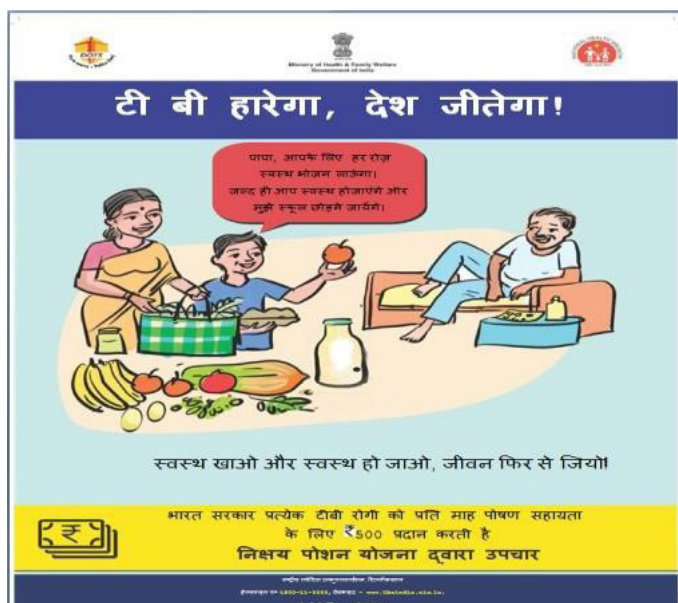
Adoption of online platforms for training, meetings and reviews allows rapid dissemination of information & knowledge and staff getting better adapted to the use of these modalities. States had conducted programme reviews through Video Conferencing, ZOOM, and ECHO platform. The increased uptake of telemedicine and teleconsultations during the pandemic will provide additional channels of consultation on TB. Patients are concerned with the similarity of symptoms of COVID and TB, higher risk of contracting Covid-19 and develop more interest to cognize about the TB, it's spread and prevention. During the lockdown period, states ensured drug supply to districts by using all available means of transport and providing the necessary passes. Some, even hired private vehicles or used resources active in Covid-19 response for TB activities. Many states have employed innovative mechanisms to provide basic services to patients. There is an opportunity to learn and scale-up some of these approaches in other places as well.

COVID-19 has also facilitated unprecedented collaboration with the private sector. While this sector has played a part in TB elimination efforts, this recent heightened consciousness of the sector is expected to further augment comprehensive TB preventive and curative services, as a multi-sectoral approach and integrated action are imperative to achieve NTEP targets along with Universal Health Coverage.

Behavioural changes acquired during the pandemic such as cough hygiene, use of masks, hand washing, social distancing et al, when sustained, will further contribute to reducing transmission of TB.

The community's contribution in making India polio-free is perhaps one of the most appreciated and documented outcomes globally. COVID-19 and its aftermath have expedited sednities for their own infectious and engaging communities, local CSOs, NGOs, SHGs, VHSNCs, CBOs, FBOs, PRIs, Religious Leaders, is one of the prioritized strategies of TB elimination, NTEP in the coming years will benefit immensely from full participation and cooperation of communities and community-based groups in various strategies of TB response and therefore reaching the maximum population quickly through messages in the form of "TB Jan Andolan" as proposed by Health Minister of India.

Going beyond medical interventions, and a renewed focus on active TB case finding post-COVID, initiatives



such as: addressing the social determinants of TB; inter- ministerial coordination with other Ministries

for expansion of TB services; TB Free Workplaces and Corporate TB Pledge Campaigns to systematically address TB in workplaces; nutritional support to TB patients through Nikshay Poshan Yojna; community-based TB services under Ayushman Bharat; and Jan Andolan in the name of “TB Harega Desh Jeetega” for TB are gaining momentum.

Demand generation & IEC to address stigma due to COVID, sustaining social distancing, wearing of masks etc.; Targeted IEC for key populations like migrants; Community engagement for reducing stigma, will improve health-seeking behaviour of common citizens for TB. All these concerted efforts shall help in reaching NTEP targets rapidly and quickly.

Dr. Sudarsan Mandal,  
 Additional DDG  
 Central TB Division, MoHFW

## E-pharmacy enabled doorstep delivery of free TB drugs & diagnosis- a new beginning towards TB elimination in Madhya Pradesh

Dr Varsha Rai & NTEP Team, MP

Sarita, a 24 yr old female from Jabalpur, Madhya Pradesh, was diagnosed with TB about a month back by her doctor in a private clinic. Since then, she is receiving free anti TB drugs supplied by Government’s National TB elimination Program (NTEP) delivered at her home through Medlife International Private Limited, the largest E-pharmacy service in India. Her sputum sample was also collected from home free of cost in the CBNAAT testing Labrun by the national TB program, without the need for her to go to any of the Government centres.

With the aim of universal access to free diagnostics and treatment services, the NTEP, have enabled access to state-of-the-art diagnostic tests and quality drugs to all patients seeking TB care.

However, ensuring the supply of free TB drugs and linkages to CBNAAT services for patients treated in private clinics was a big challenge for NTEP.

### The Scenario of TB in India

- Over 50% of people with TB are treated in the largely unorganized and unregulated private sector.
- An estimation of 2.2 million cases of TB patients is treated in the private sector every year.
- In 2019, 2.40 million TB cases were notified in India, an increase of 12.7% as compared to 2018.
- 28.2% (6.78 lakh) of notified cases were from the private sector; a 25% increase from 2018.

As part of USAID supported Sustainable Health Outcomes through Private Sector (SHOPS) Plus project, Population Services International (PSI) is implementing an innovative approach for doorstep delivery of free TB drugs, along with linkages to CBNAAT services and treatment adherence support through existing E-pharmacy platforms.

**Core Strategy:** Leverage existing market players, mechanisms, and platforms to implement innovative ways to demonstrate delivering free TB drugs, diagnosis and treatment adherence support to patients treated in the private sector.

**Strengths of E-pharmacies that can be capitalized for NTEP:**

Problems and Challenges	Strengths of E-pharmacies
<ul style="list-style-type: none"> <li>• Desegregated private sector players</li> <li>• Lack of standard diagnosis and treatment</li> <li>• Providers less inclined to notify TB cases</li> <li>• Patients less inclined to access public facilities even if referred by the private sector</li> <li>• Patients drop-outs from treatment                             <ul style="list-style-type: none"> <li>○ High Out-of-Pocket (OOP) expenses</li> <li>○ Doctor shopping</li> </ul> </li> <li>• Lack of access to treatment adherence support</li> </ul>	<ul style="list-style-type: none"> <li>• E-pharmacy platforms are aggregating key private players in healthcare such as private doctors, hospitals, labs, chemists etc.</li> <li>• Established supply chain mechanism for supply of drugs and diagnosis for providing last-mile delivery to the consumer at the doorstep</li> <li>• <b>Technology platforms</b> providing tracking mechanisms, treatment adherence mechanisms and digital records for validation</li> <li>• <b>E-pharmacy market is fast growing.</b></li> </ul>

**Leveraging:**

- The model leverages free anti TB Fixed Dose Combination (FDC) drugs, TB diagnosis facilities, from the National TB Elimination Program (NTEP).
- The model leverages and links patients treated in the private sector to the nutrition support mechanism (Nikshay Poshan Yojana) of NTEP
- Private providers engaged by NTEP are linked to e-market mechanisms

**Advocacy at National and State Government:**

- E-Pharmacy model has been accepted by the National Technical Working Group of CTD and included in the National Partnerships Guidelines, 2019
- Government of Madhya Pradesh included E-pharmacy model as a strategy in the state-specific strategic plan for ending TB by 2025
- Established mechanisms at the MP state level to monitor the progress of the e-pharmacy model
  - Governance and Program Management Committee headed by State TB officer, MP
  - Supply Chain and Operations Committee headed by District TB officers, GoMP

**Key activities and Process:**

- **The Landscape of e-pharmacies:** Population Services International (PSI) conducted a landscape assessment of e-pharmacies/e-market players and NTEP supply chain, to understand different models of e-pharmacies, supply chain mechanism of e-pharmacies, supply chain mechanism of NTEP and to identify the convergence points for NTEP and E-pharmacies supply chain
- Based upon the results of the landscape assessment, three prominent models of e-pharmacies were identified and suitable partner were selected through due process
- Co-design of the model with key stakeholders such as e-pharmacy player, Central TB Division and State NTEP team

- Advocacy at the state level for developing ownership of Government on the model
- Technology platforms put in place by Medlife to facilitate the process
- Intervention rolled out in Jabalpur with anti-TB drug delivery and sputum collection and transportation, through NTEP mapped private providers (150) and private hospitals (139)
- Triggers shared with a field team of SHOPS plus and NTEP for follow up if the patient does not respond after two reminders.
- Home visits at the consent of patient by SHOPS plus and NTEP field team for follow up
- Diabetes and HIV testing facilitated through private labs
- Contact tracing and link ages to Nikshay Poshan Yojana facilitated through Med life delivery agents

Process for Linkages to CBNAAT

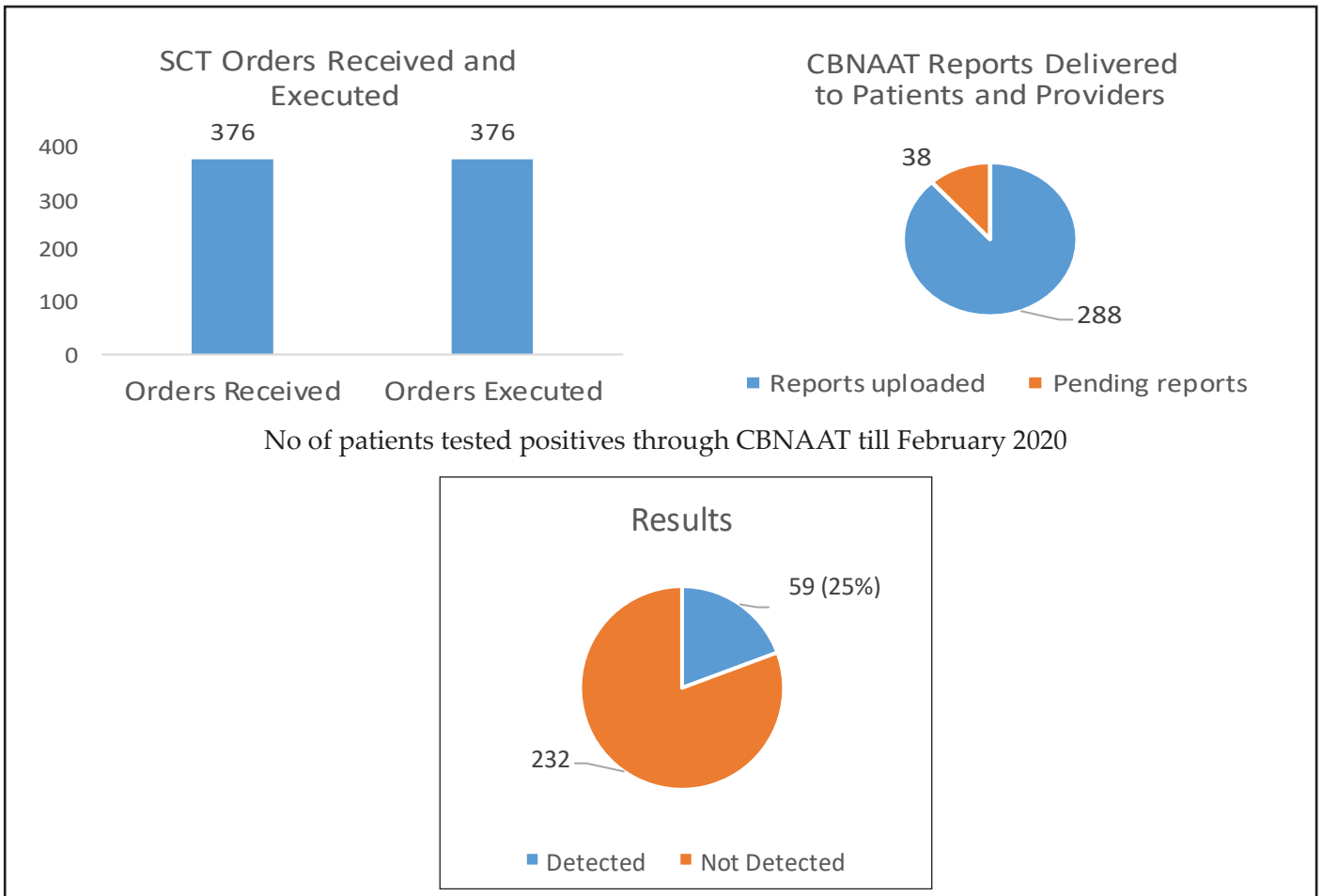
Process for FDC drug delivery and Treatment adherence support

**Treatment adherence support and public health actions:**

- Reminders mechanisms through Medlife Call Centre before 15 days, 7 days and 4 days of monthly refill due date for reminders
- Ensured that patients visit the providers every month for a refill of drugs.

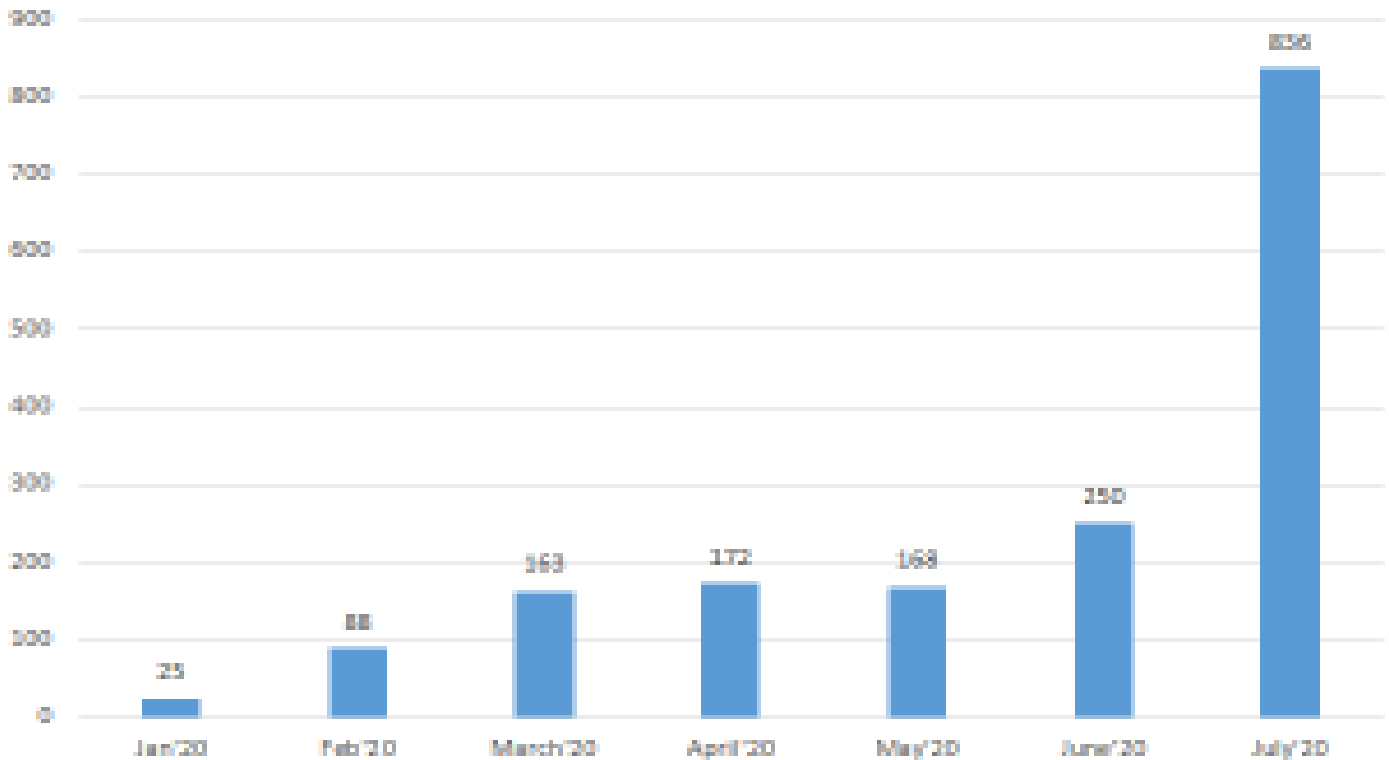
**Results so far:**

Up till February 2020, 376 patients are served with Sample Collection and Transportation (SCT) within the 2-4 hours of order placement. All samples were tested at CBNAAT labs. The lead time for CBNAAT testing was 2-3 days. 288 reports were delivered to patients and providers through the online portal.



**FDC drug delivery:**

## Drug packages delivered to patients door step (10<sup>th</sup> Jan 20 to 31<sup>st</sup> July'20)



**Patient and provider reactions on E-pharmacy model:**

*'A system acha hai, hume kahi jana nahi padta aur dawaiya ghar baithe mil jati hai, aur har mahine dawaiya lene keliye call aa jatahai'.*

*Husband of 30 yrs old female patient in Jabalpur*

*'Private me patient humare pass aate hai, yeh vishwas se ki unhe achi service milegi, par woh government hospital me jake dawayi nahi lena chahate, E-pharmacy se ab unko dawai unke ghar milti hai aur sample collect ho jata hai CBNAAT test ke leye, yeah patient ke liye achi suvidha hai'.*

*Dr. Suresh Patel, MD Medicine, Jabalpur*

**Lessons Learnt so far:**

- E-pharmacy market has the potential to address the challenges of improving access to free TB drugs and diagnosis for patients treated in the private sector
- E-pharmacy mechanism has potential for clear and tangible benefits to the patients, private providers, NTEP as well as the E-pharmacy industry.
- For smooth implementation of E-pharmacy model, it will be critical to ensure estimated demand from the private sector and ensure the indenting of drugs from NTEP to meet the demand
- However, E-pharmacy market mechanism will have limitations inpatient treatment support mechanism and can be implemented in conjunction with PPSA model, where the logistic and supply chain component is taken care by e-pharmacy mechanism and PPSA can focus on



# Apollo Tyres TB Free Transshipment Location Campaign

Dr R K Burman & NTEP Team Tripura

Dr. Sanjeev Jha, WHO Consultant, NTEP Tripura expressed the objectives to create awareness among the truckers and allied population on TB as a curable disease, connect with truckers and allied population for TB screening, facilitate TB testing for identified presumptive patients and increase access for TB services by starting Microscopy centers.



As a part of IEC Campaign 12 Hoardings were put up for TB awareness, 1,000 pamphlets were distributed and awareness generation session were conducted by the Apollo Tyres Foundation staff.

The campaign aimed to intensify TB case finding, outreach and communication with truckers and migrants at their workplace/Transshipment Locations (TSLs), was launched on the occasion of World Lung Day on 25.09.2020 by Apollo Tyres Healthcare Centre, Agartala at Madhab Bari under Jirania Block, West Tripura District, in collaboration with National TB Elimination Programme (NTEP), Tripura. It was a 15 day long campaign, continued till October 9<sup>th</sup> 2020.

Dr. R. K. Barman, STO Tripura inaugurated the campaign. In his inaugural address, emphasized the need for timely examination, treatment adherence and social support systems available for TB patients. He assured the availability of CBNAAT van exclusively for truckers. DTO West Tripura Dr. Amit Deb Barma informed about the facilities available under TB care including Nikshay Poshan Yojana for all TB patients during the treatment period.

Saikat Dey, IEC Officer NTEP, explained the symptoms of TB, the mode of spread. The precautionary measures such as cough etiquette manoeuvres were demonstrated.



Truckers and allied population screened for symptoms	756
No. Presumptive TB Cases Identified	48
No. Presumptive TB Cases samples tested at the CBNAAT Site	46
No.of MTB Detected Rif Sensitive	4
No. of MTB Detected Rif Resistant	0
No. Presumptive TB Cases screened for HIV	46
No. Presumptive TB Cases Screened for HIV Reactive	0
No. Presumptive TB Cases screened for Diabetes	46
No. Presumptive TB Cases screened for Diabetes Random >140mg/dl	10
No.of MTB Detected Rif Sensitive linked to NTEP Standardized Regimen	4

To conclude, this initiative brought the NTEP and Apollo Tyre Foundation successfully on a platform towards awareness generation, early diagnosis and treatment adherence to reduce morbidity and mortality amongst the truckers' community.

## Update on “TB Free” Sub-National Certification

Amitava Banerjee

The Government of India has embarked on an ambitious goal to end TB in the country by 2025, five years ahead of the global SDG timelines. This would entail reducing the incidence of new TB cases by 80% of the baseline figures of 2015. To achieve these targets of elimination at a large scale, it is essential to cascade disease control initiatives to the grassroots level. Evidence suggests that there are wide variations in TB burden across the country, and the quantum of efforts towards elimination, differs across districts. Such a differential epidemiological scenario demands a differential strategy to reach the SDG targets.

The National Strategic Plan (NSP 2017-25) for ending TB has framed appropriate strategies ranging from universal coverage for case finding to comprehensive preventive measures. However, timelines of implementation of advanced interventions across the country may vary from district to district, with some of them already in an advanced stage of progress towards these targets. Incentivizing and rewarding well-performing states/UTs/districts for achieving targets that are within their control and capacity, will not only motivate states/UTs/districts to prioritize and undertake the implementation of the National Tuberculosis Elimination Programme in elimination mode but will also generate a sense of healthy competition between them.

A District or a State/UT will be recognized for achieving “TB Free” status through both monetary and non-monetary awards. This is upon verification of achievement of targets outlined (in this case, 80% reduction in TB incidence from 2015). To keep states/UTs motivated, interim recognition in the form of Awards and Certification of Progress towards TB

Free Status, has been considered under Bronze, Silver and Gold categories for identified milestones. The certification and awards will be provided based on the claim submitted by respective district/state/UT through due process.

As per approvals by the Mission Steering Group (MSG) of the National Health Mission (NHM) in 2018, a District or State/UT will be recognized for “Progress towards TB Free Status” based on the following:

### Criteria for Certification TB Free Status & Interim Recognition of Progress towards TB Free Status

Achievement of reduction in TB incidence as compared to 2015 incidence rate (in terms of number of incident TB cases per lakh population)	Award / Status
20%	Bronze
40%	Silver
60%	Gold
>80%	TB Free District / State

### The Awards will be given every year starting 2020-21 as per the following timelines

States/Districts to submit claims for Certification / Award	by 31 <sup>st</sup> August
Verification of Claim by Third-party agency identified by MoHFW	August to February
Dissemination of Awards	March

### Monetary & Non-Monetary awards for TB Free Status & Interim Recognition for Progress towards TB Free Status

Award/ Status	The Monetary award for the district (Rs)*	The Monetary award for State / UT (Rs)*	Non-Monetary award
Bronze	2,00,000	25,00,000	Medal and Felicitations at the National level
Silver	3,00,000	50,00,000	
Gold	5,00,000	75,00,000	
TB Free District / Cities	10,00,000	1,00,00,000	Certification and Felicitations at the National level

\*For States /UTs with a population less than 50 lakhs and districts with a population less than 2 lakhs, the award amount shall be 50% of the amounts considered.

The District/State/UT shall submit their claims for certification for 'TB Free' status or 'Progress towards TB Free Status. Verification of claims by Districts/States/UTs will be done by an independent agency/institute identified by the Ministry. Award and certification will be based on successful verification of the achievement of decline in TB incidence from the baseline. Details of submission and verification processes can be found in the Guidance Document issued by the Central TB Division, MoHFW.

So far 15 States/UTs have committed to ending TB by 2025 or before.

2020 - Kerala

2021 - Himachal Pradesh

2022 - Gujarat, Lakshadweep, Sikkim

2025 - Andaman & Nicobar Islands, Bihar,

Chhattisgarh, Daman & Diu and Dadra & Nagar Haveli, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Puducherry, Tamil Nadu and Uttar Pradesh

At the time of writing this article, the state of Kerala, 3 UTs and 66 districts have already staked their claims under various categories. A Task Force has been constituted to finalise the methodology for verification of these claims comprising of members from within the programme and from leading institutions around the country, experts, development partners and WHO.

**Amitava Banerjee**  
 National Consultant (WHO-NTEP),  
 Central TB Division

## Samvidhan Diwas (Constitution Day) Observation

**Ms. Richa Bharti**

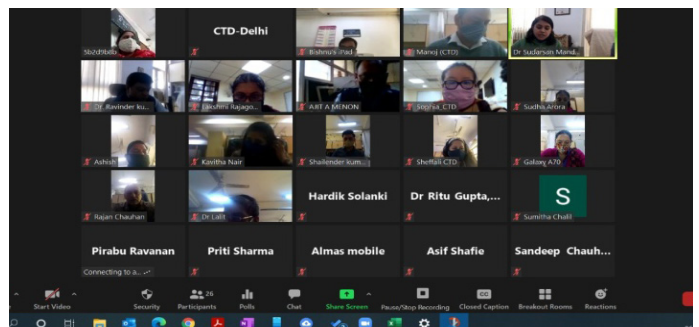
Constitution Day or Samvidhan Diwas is celebrated annually in India on 26 November. The day is also known as National Law Day. On this day in 1949, the Constituent Assembly of India formally adopted the Constitution of India that came into force on 26 January 1950. Hon'ble Shri B. R. Ambedkar, chairman of the drafting committee, is widely considered to be the chief architect of the constitution of India.

The constitution declares India a sovereign, socialist, secular, democratic republic, assuring its citizens' justice, equality and liberty, and endeavours to promote fraternity. The original 1950 constitution is preserved in a helium-filled case at the Parliament House in New Delhi. The words "secular" and "socialist" were added to the preamble in 1976 during the Emergency.

On 26<sup>th</sup> November 2020, the Constitution Day was observed by at Central TB Division and was coordinated by the Advocacy Communication and Social Mobilization (ACSM) team. Keeping in view the COVID-19 scenario, all the Officers, Consultants and Staff were requested to join virtually. Dr Sudarsan Mandal administered the reading of the preamble to all the employees both in English & Hindi, at the designated time of 11 AM, as per the call given by the Hon'ble Prime Minister of India.



Dr. Sudarshan Mandal, Addl. DDG (TB) is reading Preamble on Constitution Day (26<sup>th</sup> Nov. 2020)



Officers, Consultants & Staffs from Central TB Division is reading Preamble on Constitution Day (26<sup>th</sup> Nov. 2020)

A total of 26 participants attended the event. The meeting ended with vote of thanks.

**Richa Bharti**  
 Technical Officer (ACSM), Central TB Division

## “Corona se Darona” – an online session with DR-TB patients

Dr. Upalimitra Waghmare & NTEP Team Bandra (West)

A country wide lockdown was declared due to COVID 19 pandemic in March 2020. TB patients who were given medication for one-month duration up till then faced issues and were unable to visit OPD and obtain medicines due to strict lockdown rules and sealing of containment zones. Amidst the prevailing confusion, several misconceptions regarding COVID diseases were playing on the mind of the TB patients. To reduce the anxiety of the TB patients an online session with a psychiatrist was planned.

Soon all patients were contacted. Fifty percent of them had smart phones. They were educated on how to download Zoom App and to join the online counselling session. Accordingly, a day was scheduled for the online counselling session.

A total of (50) DRTB patients joined the session after taking prior consent from them. TB Health Visitors of that Peripheral Health Institutions (PHI) where patients belonged also joined the session and aid the patients in case any additional support was needed. Patients who did not own smart phones were engaged through a simultaneous conference call on their mobile phones so that they can also benefit from the session.

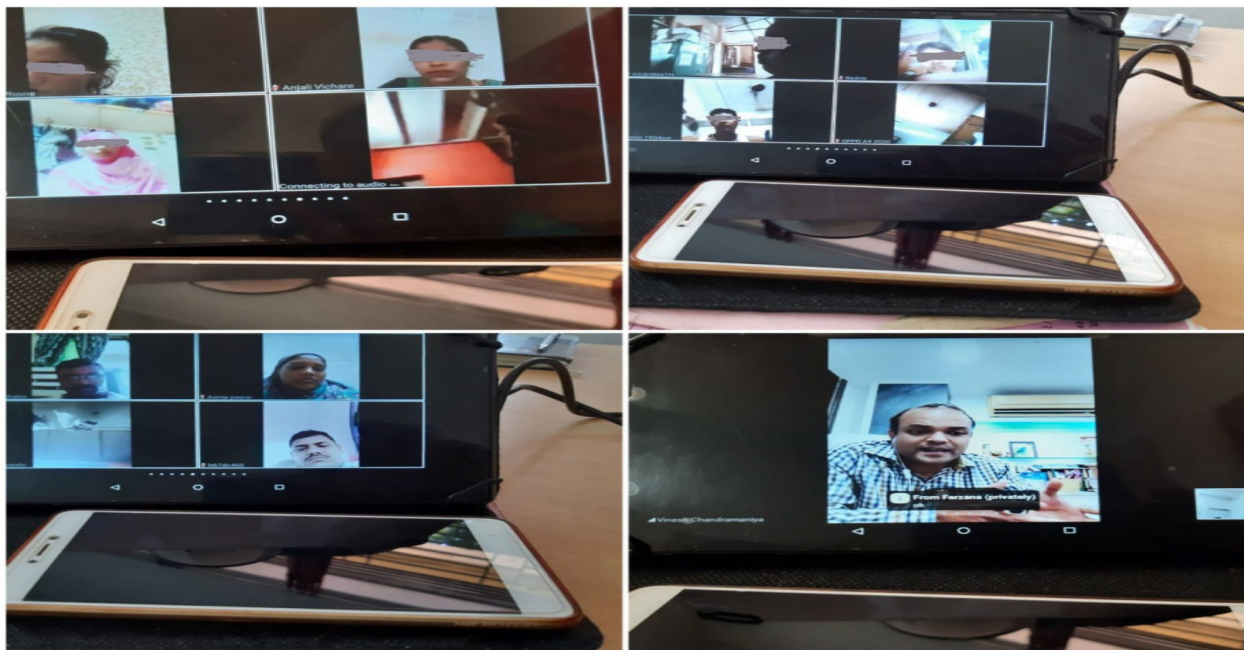
The one-hour long session informed patients regarding CORONA, how it is spread, symptoms, what precautions and care needs to be taken were explained to the patients. The session also encouraged

patients to clear their doubts and put their queries to the Psychiatrist Dr Vinesh Charamaiya. DTO Bandra West Dr Upalimitra Waghmare steered the session. The session focused on developing habits to lead a healthy mind and body. Patients were benefitted by this initiative and requested a session with DRTB doctor, next. Their demand was duly fulfilled a session with DR-TB Nodal Person Dr Namrata Bhui was organised. Patients were told the importance of adherence, identifying Adverse Drug Reactions and reporting immediately to TBHV/ supervisor, how to maintain nutrition during the lockdown period, the importance of practising cough etiquettes.

This initiative helped reduce patients’ anxieties at a critical time and created a bond between the doctor and patients which resulted in high adherence rates even during the lockdown phase and beyond.

Later Dr. Vinesh started with enquiring patients about their fear, mental condition, thoughts of COVID disease, he explained to them various ways they can use to decrease their anxiety. Also, how to develop habits to lead a healthy mind and body was explained in detail.

This activity helped to create patients doctor bond, the patient’s anxiety was reduced, and it was observed till date those who participated in the session are regularly taking their medications.



## A weak immunity can lead to TB: A story of a young girl

NTEP Team, Nagaland

At first, Akumnaro caught a cough and fever in October 2019. She took antibiotics to cure it. A month later, she began feeling weak and got exhausted easily even when she walked for a few minutes. The more she walked the more her chest would ache. Soon, she was bed ridden for a month and that was when perturbed she decided to go see a doctor. She was advised to get her sputum examined. The results showed she had contracted TB. Akumnaro froze in fear upon hearing it.

Akumnaro revealed that her failure to eat food on time and often relying on junk food led to a loss of appetite and weight loss. Weak immunity and health, she feels, could have been the primary reason for contracting TB than being contracted through others.

She was put on a 6-month treatment regime from January 2020. She maintained a strict routine to take the medicines in the night as in the day she had to attend her classes. The strong medications made her feel at times weak and numb. During the treatment, she kept coughing and her chest would hurt due to this. In

a few weeks' times, she saw noticeable improvement. She started to cough less, and chest pain also reduced. By the 6<sup>th</sup> month, she got herself examined again and the doctor declared her TB free.

Akumnaro says the support she received from her close friends and family gave her the strength. Earlier she was shaken with fear and hide her TB status however gradually people got to know about it but thankfully they did not mistreat her, she adds. Thanks to the support she received her determination to fight TB grew stronger and taking medicines regularly without fail played an important role in being completely cured of TB.



## An essay: "Ethics and Integrity in public offices"

Md Akbar Hussain

"Doing right things all the time even if nobody is watching you is called Ethics and Integrity". The above statement is simple and self-explanatory, however, very tough in practising. So, the question arises, whether it is possible to do the right things all the time even if nobody is watching you? The answer is yes, of course, you can do it despite. However, to do this, you must be on the very high moral ground all the time by moulding your thought process.

In other words, high moral ground, ethics, and integrity all originate from how your mind works, what are your thought processes? If you watch your thoughts, it becomes your action. You watch your action; it becomes your habit. You watch your habit; it becomes your character. Ultimately, your character leads you to live your way of life on high moral grounds, ethics, and integrity.

When you make your way of life in such a way that

Ethics and Integrity become an integral part of your life, then no matter what, whether you are at your home, office / public office. Ethics and Integrity is now a resident of your conscious and subconscious mind which will automatically lead you to do right things all the time even if nobody is watching you, irrespective of whether you are part of Public office or any other organizations or not. As far as Public Offices are concerned, the Central Vigilance Commission (CVC) has issued several circulars and guidelines time to time to eradicate corruption from Public Offices in India. There is no other opinion that every individual should be strictly following those circulars and guidelines all the time in the day-to-day affairs in public offices. However, I would like to share with you one more additional parameter to judge your behaviour or action, whether it gets passed on the criteria of morality, ethics, and integrity or not.

It is a very simple parameter. If you doubt any of your action on the ground of morality, ethics, and integrity, you just share your that particular action with your mother. In the process of sharing your particular action with your mother, if you can make eye contact with your mother and not feeling shame to share that particular action of yours, it means you have passed on criteria of morality ethics and integrity. If you cannot share your action with your mother by eye contact and head held high in front of her, it means you do not qualify on the parameter of morality, ethics, and integrity for that particular action of yours.

At last, I would like to conclude: "Integrity is not a conditional word. It does not blow in the wind or change with the weather. It is your inner image of yourself, and if you look in there and see a man who won't cheat, then you know he never will." – John D. MacDonald.

**Md Akbar Hussain- National Consultant- PPP  
(WHO-NTEP TSN).**

*This entry was adjudged the best in the essay competition held on to mark the Vigilance Awareness Week.*

## Digital Signature Certificate (DSC) – A need for timely DBT payments

**Dr Sudarsan Mandal & Sukhmeet Singh**

Government of India has set the target to achieve Sustainable Developmental Goals (SDGs) by the year 2025 against the global targets of 2030. Hon'ble Prime Minister's vision for TB free India along with his flagship reform agenda of DBT has been instrumental in bringing efficiency, transparency and accountability in the government system. Leveraging technology is the way to deliver healthcare equitability across social strata in an economically diverse country such as India. Timely pay-out is a crucial element of Disease Management & ensures unhindered patient support & surveillance. The National Tuberculosis Elimination Programme (NTEP) is one of the first health programmes in India to use a fully electronic system to digitize beneficiary information and transfer money benefits at scale. Digital Signature Certificate is the digital equivalent or electronic format of physical or paper certificate. The NTEP has used technology with adoption of DSCs to ensure timely payments to intended stakeholders. Digital Signatures were introduced in the year 2019 and were adopted increasingly, with certain states leading the way in 2020 – Maharashtra (Mumbai City), Rajasthan, Madhya Pradesh and Tamil Nadu, to name a few. The implementation was quite challenging, given the quantum of work and diversity of stakeholders, hence, it was taken up gradually by states across the country. The reluctance was under stand able because this was "one of its first kind of intervention under the National Health Mission", involving multiple health agencies having to work in tandem with each other. To achieve this, Central TB Division (CTD), MoHFW has been instrumental to issue timely release of DO

letters and placing a core team of trainers that have aided in a smooth adoption of DSCs throughout the country today.



DSC Implementation Support & Review meeting by CTD

**Some of the pertinent benefits of DSC are: –**

- Improved efficiency and reduced Turn around Time (TAT) of payments – the designated authorities can sign payment advice from their respective offices, minimising paper transactions. The lengthy and time-consuming manual process of Print Payment Advice (PPA), getting signatures from two authorised signatories and submission to banks is not needed now.
- Streamlined workflow & quicker payments – Adoption of DSCs enabled the program to ensure

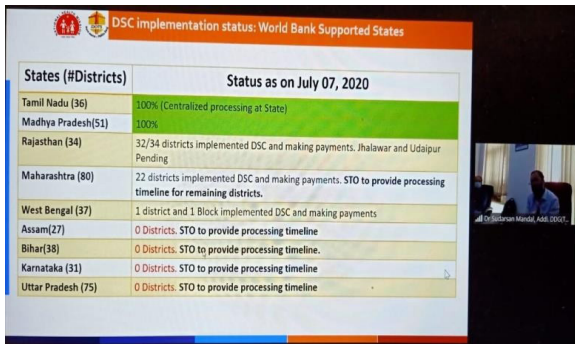
beneficiaries are paid faster-especially in States where there are multiple signatories from TU level ~ like Maharashtra, which noticeably reported a drop-in time to credit by 33 days and an increase in benefits by up to 70 times in a month. An analysis of benefits of shifting to DSC based payments (Tamil Nadu & Mumbai City) has shown that the average time taken for payment (TAT) of DBT was reduced from 13 days to 5 days.

- c. Paperless Office – It provides an opportunity to move to a paperless office, whereas earlier, Print Payment Advice (PPA) had to be physically printed & signed by approving authorities, which is now a passé.

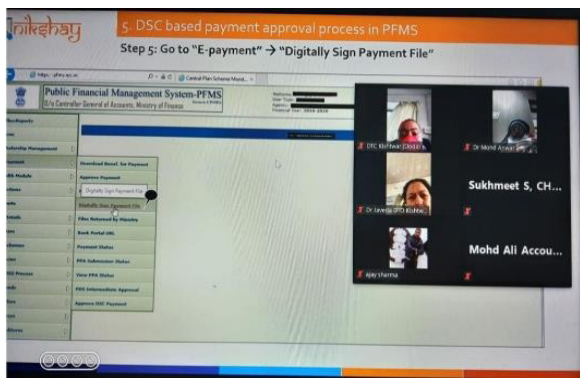
To help states seamlessly adopt this intervention, multiple training sessions were undertaken backed by weekly/ fortnightly calls placed across states by the partner organizations (CHAI & The Union). The Implementation was carried out in broadly two phases:

- b. Phase 2 – Scale-up & Full Support – In this phase, all the states were asked to adopt DSCs & review the number of signatories. With the increased use of DSCs and the support from state offices, it is encouraging to note the advantages the system has brought to patients for meeting their nutritional requirements that might help to conquer the disease.

After the first DO letter from MoHFW on DSC Implementation was issued on 17<sup>th</sup> July 2020, 52% of the districts in India have implemented DSC based DBT payments as of (8<sup>th</sup> October 2020). With constant encouragement and review from CTD and regular training and continuous support from partner organizations. 75.42 percent (580 out of 769 districts) of districts in India have completed the DSC based payments as of 3<sup>rd</sup> January 2021. However, there are some constraints in implementing DSC in the states like Maharashtra, West Bengal and UP having TU level payment agencies also. Hopefully, India could see the pan-country implementation of DSC by January 2021. To adopt DSCs pan-India by January 2021, and expectation that every State / UT will contribute towards achieving this milestone encouraged by the seamless DSC enabled payments that have been made under the program in states such as Tamil Nadu, Madhya Pradesh, Gujarat, Rajasthan etc. In times ahead, the use of technology and adoption of digital interventions will further aid to streamline the DBT payments in NTEP. Let the DBT beneficiaries get their due payments seamlessly and without any hassle.

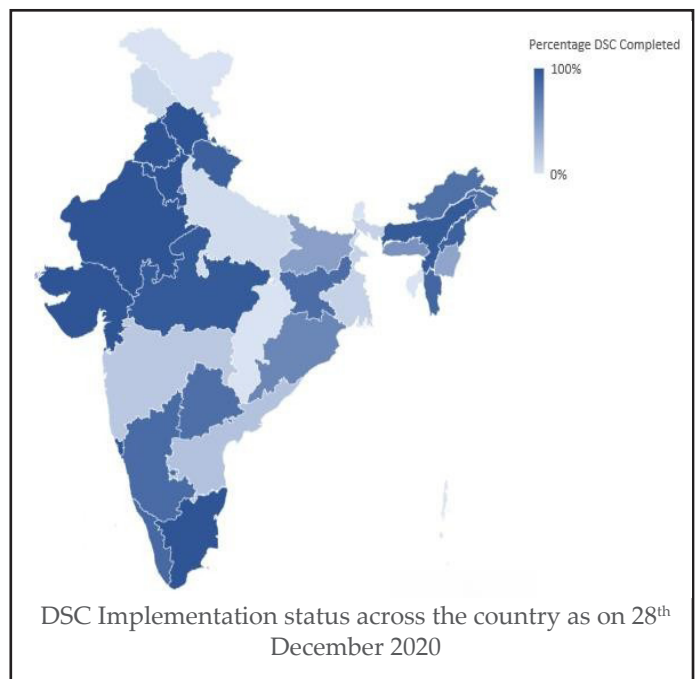


DSC Implementation review for the World Bank supported States by CTD



DSC Implementation Training in J&K

- a. Phase 1 - Model / Focus States – Model states which had taken initial steps were asked to lead the way for other states by reaching the DSC Implementation of hundred percent like Tamil Nadu, Madhya Pradesh, Gujarat & Rajasthan.



## “TB Jan Andolan- a People’s Movement for Ending TB in India”

Ms. Richa Bharti

Union Health Minister Dr. Harsh Vardhan directed the ministry officials to take up the elimination of TB on a Mission Mode. All stakeholders were asked to come together and chalk out an aggressive strategy for making India tuberculosis free by 2025. The Hon’ble Minister suggested the adoption of innovative approaches to address TB and directed TB elimination to be made a Jan Andolan (mass movement).

### Goals of Jan Andolan:

- National Level :** Create hype around TB through high visibility mass media campaigns
- State Level:** Replicate and amplify TB related messages
- District/ Sub District Level :** Disseminate TB related messages

Every stakeholder needs to actively participate in TB elimination program to enhance their efforts in this direction to make this dream a reality. He noted, “We need to develop synergy among partners and to devise a mechanism where there is no duplication of efforts.” He asked the officials to take up new interventions and mount aggressive awareness campaigns so that the whole country is in sync with the “TB Harega Desh Jeetega”(TB will lose, the country will win) campaign launched by Hon’ble Health Minister on 25<sup>th</sup> Sept 2019. The Prime Minister had given a clarion call to made India free of Tuberculosis by 2025, five years ahead of the global target. We are in process of developing a comprehensive and focused strategic action plan by bringing together synergies of all systems and available resources across the government and non-government sectors and roping in other ministries, state governments, MPs, MLAs, NGOs, civil society organisations & the media for sustained efforts in combating TB.

As we all are aware that India completed a full 6 years as a “Polio-Free Nation”. It was a remarkable feat considering the odds against achieving this status. The many lessons learned during this arduous exercise are

helping us to develop the elimination strategies of TB. Lessons such as government ownership, innovations in program delivery, technical advances, building partnerships with private and social sectors, massive social mobilization and a sound, multi pronged communication strategy is essential to motivate the entire population to achieve public ownership rather than just creating a government-driven program.

TB can happen to anyone, yet some populations are highly vulnerable to contracting the disease. In my view, TB is really a social disease with medical dimensions. So, defeating TB requires not just a medical response, but also a social responsibility. It is not just the infection that affects the patient. But Socio-economic factors have a huge role to play. Access to housing, nutrition and a social support system in the form of a community support is equally important for a TB patient. Poverty, undernutrition and vitamin deficiencies, overcrowding and unhygienic living conditions, Indoor air pollution, illiteracy are the social determinants of Tuberculosis.

Drawing inspiration from our successful polio eradication movement, we also recognize the strength of a Jan Andolan or a community-driven revolution to end TB and engage multiple sectors and the community as a whole to be involved towards the national movement of TB free India by 2025. People from all walks of life will be contributing to this movement – from Gram Pradhan to teachers to religious leaders to big corporate. Due to our collective approach, the government will be able to reach the largest number of patients and supporting them to complete treatment. Let us all pledge to work toward the disease’s elimination and help our brothers and sisters to overcome this menace and remove the stigma associated with TB.

Remember, TB Harega Tabhi Desh Jeetega!

Richa Bharti  
Technical Officer (ACSM)  
Central TB Division



## District response to mitigate the COVID-19 pandemic impact on Tuberculosis

DTO & Team DTC, Ramanagara, Karnataka

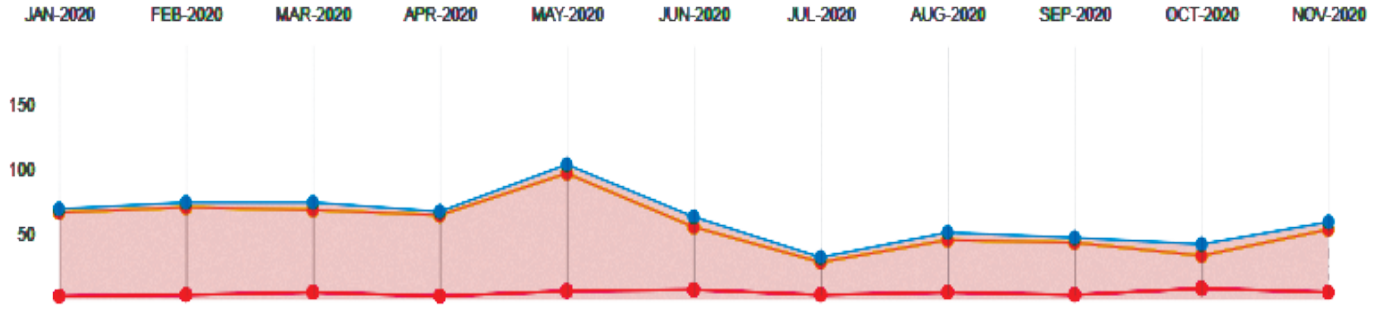
COVID-19 pandemic is one of the health challenges the world has ever faced. It has jeopardised the human life, not only with SARS COV-2 infection, but also with socioeconomic impact to countries. It has also impacted the other health programmes including National TB Elimination Programme (NTEP), with resource diversion and compromised programme activities. Karnataka is one of the worst hit states of India, where carrying out the routine NTEP activities was a challenge. To overcome the challenges of TB case finding and the disease management, the state NTEP has introduced some of the innovative activities to be carried out by the district with a moderate success. Here, the innovation introduced by the district Ramanagara is of worth mentioning.

Ramanagara, is one of the south-eastern districts of Karnataka with a population of 12 lakh. The district TB programme used to diagnose and notify around 800

TB cases annually with the help of available diagnostic tools (1 CBNAAT, 12 DMCs and 53 microscopic centres). But, after the emergence of COVID19 pandemic, the district programme had a setback with Covid19 lockdown and diversion of programme resources in COVID containment and there was an inevitable fall in TB case finding. District took it as a challenge and planned to innovate the mechanism to screen and diagnose the TB case under the leadership of District TB Officer, dedicated NTEP staff with the support of district and state administration.

The district planned to utilize the mobile CBNAAT van optimally during the COVID-19 lockdown, provided by the state. The activities were meticulously planned with all precautions of personal protection and infection control. This enabled the district to lift the declining trend of TB notification to maintain at par with previous years.





All the PHC Medical officers were approached and sensitized prior to the activity. The mobile CBNAAT van route plan was prepared with the consensus of PHC Medical officers and the diagnostic van to be kept in PHC premises. Community based TB symptom screening were done, and the sputum sample collection and transportation were mobilized to the PHC based mobile CBNAAT van for TB testing. With optimal use of CBNAAT diagnostic van 2,317 samples were tested between 14<sup>th</sup> April to 30<sup>th</sup> May 2020 and 147 TB cases were diagnosed. This activity was further strengthened by diverting the additional accumulated samples to district level CBNAAT labs.

From then, on an average 900 CBNAAT tests have been done per month at the district CBNAAT site from last May 2020.

With the meticulous planning, staff support and fullest utilization of district CBNAAT lab, added with optimal utilization of mobile CBNAAT diagnostic van, the district could avert the fall of TB case finding during the Covid19 lockdown period. The innovative activity also motivated the staff in General Health system in the programme involvement and make the action plans for their PHCs to do the community-based TB symptom referral and quality sample collection and transportation to CBNAAT site.

## टीबी रोगी खोज महाअभियान

(दिनांक 26 दिसंबर से 25 जनवरी 2021)

राजेश कुमार सिंह

आज 'सेतु' की आँखों के आँसू रुकने का नाम नहीं ले रहे थे, लगन का बेटा 'सेतु' कमाने के लिए सूरत गया था, लेकिन ना जाने क्या हो गया, कौन सी बीमारी उसे लग गई कि वह थका-थका सा रहने लगा। शाम होते-होते हल्का बुखार भी आ जाता, भूख तो बिल्कुल नहीं लगती, वजन भी गिरने लगा था, रात को पसीना भी आता था स रह-रह कर खांसी भी आ जाती थी। कोई इसे दमा कहता तो कोई निमोनिया। माँ बाप का अकेला लड़का, गांव-देश से दूर, रोजी रोजगार के चक्कर में शहर गया था। लेकिन जब समय बुरा होता है तो सब बिगड़ जाता है। तबियत खराब हुई, तो रोजी भी गयी, रोटी के भी लाले पड़ने लगे तो मित्रों ने कुछ रुपये-पैसे का इंतजाम कर के उसे गांव भेज दिया।

वह अपने गांव तो पहुंच तो गया, लेकिन उसे एक-एक कदम आगे बढ़ाना मुश्किल था। सांस बुरी तरह से फूल रही थी, लोग

अब उसे देखने के लिए जुटने लगे थे। सभी उसकी बीमारी, सेतु के इलाज का खर्चा और लगन की गरीबी, सब को जोड़कर देख रहे थे। भीड़ में खड़ी 'सुघरी' भी पूरी बात बड़े ही ध्यान से सुन रहीं थी। लोगों की बात और उसकी बीमारी के लक्षण को सुन कर सुघरी को इस बात का पूरा विश्वास हो गया कि सेतु को टीबी हो गई है। गांव की बहुरिया थी तो क्या, वह आशा बहू भी तो थी। पीछे कई साल से वह टीबी रोगी खोजी अभियान की हिस्सा भी रह चुकी थी, इसलिये अच्छी तरह से टीबी के बारे में जानने लगी थी। लगन को गांव के सब लोग समझा रहे थे, "कौनो बात नाई लगन भाई, पूरा गांव तोहार मदद करी, हम सब तुम्हरे साथ हई, बचवा बिल्कुल ठीक होई जाई"। लेकिन लगन और काकी का रो-रो कर बुरा हाल था।

घुंघट का पट हटाते हुए, सुघरी लगन की पत्नी के पास गई,

बोली “काकी, परेशान ना हो, भिन्नही हम सब व्यवस्था कइ देब, सब ठीक होई जाई”। आज सुबह होते ही सुघरी, महेशर के पास पहुंच गई, बोली “महेशर भईया! लगन काका के बेटवा के लगत बा टीबी होई गय है, वोकर जांच— इलाज करावे का परी”। महेशर टीबी अस्पताल मे क्षय स्वास्थ्य कार्यकर्ता था। बहुत ही मेहनती बच्चा था। सेतु को लेकर वह सुबह सुबह अपने सरकारी अस्पताल मे पहुंच गया। सेतु की हालत धीरे-धीरे खराब होती जा रही थी। जांच पड़ताल हुई, उसका बलगम लिया गया, और उसी दिन उसकी जांच एक खास मशीन सीबी नाट मशीन से हुई, दो घंटे मे रिपोर्ट भी आ गई, रिपोर्ट सुनकर एक बार सेतु और लगन दोनों रोने लगे, लेकिन महेशर और सुघरी ने दोनों को समझाया। अस्पताल के बड़के डॉक्टर साहब ने भी समझाया, कि बिल्कुल घबराने की जरूरत नहीं है, अब इस रोग की पूरी दवा मौजूद है, आपका बेटा जल्दी से स्वस्थ हो जाएगा। महेशर दौड़-धूप कर सब काम करा रहा था, जैसे वह सेतु का कोई सगा भाई हो। अस्पताल से सेतु को पूरे कोर्स की मुफ्त दवा का इंतजाम हो गया था, सेतु का इलाज चलने लगा। एक-दो महीना दवा खाने के बाद सेतु को लगा कि अब वह चंगा हो गया। गांव के नहर की पुलिया पर हर दिन शाम को बैठकी होती।

मनीष ने सेतु के लाल हो रहे गाल को देख सलाह दे दी कि ‘अबे! कब तक दवाई खायेगा, अब तो तू बिल्कुल ठीक हो गया है। एक बार तो महेसर की वह बात सेतु के दिमाग मे आई, कि दवा किसी भी हाल मे बंद नहीं करना है, लेकिन अगले पल मनीष की सलाह उसके दिमाग पर जम गई, और वह इलाज बीच मे छोड़ कर कमाने चला गया।, महेसर और सुघरी रोज-रोज लगन के घर जाते, और सेतु के विषय मे जानकारी लेते, लेकिन लगन अब सुघरी की एक बात सुनने को तैयार नहीं था, उसे तो अब सिर्फ सेतु के मनीआर्डर का इंतजार रहता। धीरे-धीरे एक साल का समय बीत गया।

आज सुबह-सुबह एक एम्बुलेंस लगन के दरवाजे पर आकर रुकी। सेतु के जर्जर शरीर को उसके मित्र एम्बुलेंस से यह कहते हुए नीचे उतार रहे थे, कि इसे दुबारा टीबी हो गई है, आज फिर वही भीड़ लगन के दरवाजे पर थी। आज फिर सुघरी सेतु को देख रहीं थी, और मन ही मन बुदबुदा रही थी कि दवाई छोड़ने का खामियाजा इसे मिल गया। इसे खराब वाली टीबी जरूर निकलेगी। एक बार फिर महेसर और सुघरी सेतु के साथ अस्पताल मे पहुंच गए थे। सेतु को देखकर

डॉक्टर साहब को गुस्सा आ रहा था। फिर से जांच, एक्स रे सब हुआ। रिपोर्ट मे सेतु को खराब टीबी (एम डी आर ) की बीमारी निकली, साथ ही साथ शरीर मे खून की काफी कमी भी हो गई थी , इलाज शुरू हो गया। डॉक्टर जी ने बोला था कि अगर संभव हो तो सेतु को एक दिन के लिए भर्ती कर के एक बोतल खून चढ़ा दिया जाय। सेतु के खून का ग्रुप ओ पाजिटिव था, इस ग्रुप का खून बड़ी मुश्किल से मिलता है। महेसर और सुघरी सब क्रोध पी कर सेतु के इलाज मे लग गए थे। अस्पताल के एक कर्मचारी तिवारी जी दूर से, खून वाली बात को सुन रहे थे, आकर उन्होंने धीरे से बोले कि हमारा ब्लड ग्रुप ओ पाजिटिव है। हम खून दे देंगे। आज तिवारी जी अपना खून निकलवाने के लिए ब्लड बैंक में लेटे थे, उधर सेतु टीबी क्लिनिक के बेड पर लेटा हुआ था और अपनी किये गलती पर पछता रहा था। लगन, सेतु की माँ का मुँह निहार कर बड़बड़ाए जा रहा था.. “इ लोग किसी भगवान से कम नाही, हमरी सारी गलती भुलाइ के सेतु को बचावे मे लगे है”। लगन की आँखे शर्म से झुकी थी, वह भावुक होता जा रहा था। उसकी आँखों से गंगा—जमुना झर रहीं थी। वह बार-बार गमछा से अपनी आँखे पोछे जा रहा था।

अब सेतु का इलाज, लगातार बिना रुके चल रहा था। हर महीने उसके खाते मे पोषण भत्ता भी लगातार आ रहा था। पूरे दो साल के इलाज के बाद सेतु बिल्कुल स्वस्थ और चंगा हो गया था। उसके बीमारी ने उसे जितना भी सताया हो, यह अलग बात है लेकिन बीमारी ने उसके और क्षय उन्मूलन कार्यक्रम के बीच सेतु का काम किया। सेतु अब टीबी सरवाइबर के रूप मे टीबी प्रोग्राम का हिस्सा बन गया था, अब वह घूम-घूम कर टीबी रोगियों को ढूढता, और लोगो को टीबी के प्रति जागरूक करता, उनका इलाज करवाता।

क्षय उन्मूलन कार्यक्रम के तहत पूरे देश मे टीबी खोजी महाअभियान का उद्घाटन किया गया है और इसी उपलक्ष्य पर आज उत्तर प्रदेश के भी सभी जिलों मे टीबी का कैंप लगाया गया है। सेतु इस कैंप मे बढ़-चढ़ कर हिस्सा ले रहा था। “सेतु” जोर-जोर से नारा नारा लगा रहा था कि टीबी हारेगा देश जीतेगा !

राजेश कुमार सिंह “श्रेयस”  
लखनऊ, उप्र, ( भारत )

PHOTO GALLERY

2025 तक देश होगा टी.बी. मुक्त: डी.एम.

यमुनानगर, 21 अगस्त (ब्यूरो): उपायुक्त कार्यालय में जिला टी. बी. फोरम की बैठक का आयोजन किया गया। इस बैठक को अध्यक्षता जिला उपायुक्त मुकुल कुमार द्वारा की गई तथा उनके साथ बैठक में सिविल सर्जन डा. विजय दहिया, डा. स्वाति अय्यर कन्सल्टेंट (विश्व स्वास्थ्य संगठन, पंचकूला) व डा. चारु कालड़ा जिला टी.बी. अधिकारी, डा. योगेश जिनंदल आई.एम.ए. अध्यक्ष के साथ-साथ अन्य विभागों के भी अधिकारी उपस्थित रहे।



ऑनलाइन मीटिंग में भाग लेते अधिकारी। (बुझी)

बैठक का मुख्य उद्देश्य जिला यमुनानगर से सभी सरकारी संस्थानों से आए अधिकारियों को टी.बी. के बारे में जानकारी प्रदान करना व उन्हें जागरूक करना था, ताकि वे अपने विभाग में अन्य सभी अधिकारियों व कर्मचारियों तथा आमजन को भी टी.बी. के बारे में जागरूक कर टी.बी. को समाप्त करने की सरकार की मुहिम में सह-चक्र कर योगदान दे सकें। बैठक के दौरान उपायुक्त ने जानकारी देते हुए बताया कि भारत सरकार का 2025

तक टी.बी. को पूर्णतः समाप्त करने का लक्ष्य है। अतः सरकार का नारा है कि यदि गांव मुक्त होगा तो शहर मुक्त होगा, शहर मुक्त होगा तो जिला मुक्त होगा और यदि जिला मुक्त होगा तो राज्य मुक्त होगा। इसके चलते सरकार द्वारा विभिन्न योजनाएं चलाई जा रही हैं।

उन्होंने सभी उपस्थित अधिकारियों को आदेश दिए कि सभी सरकारी संस्थानों व सार्वजनिक स्थानों पर टी.बी. जागरूकता से सम्बंधित बोर्ड व दिशानिर्देश अंकित होने आवश्यक हैं।

सिविल सर्जन डा. दहिया ने बताया कि जिला में वर्ष 2020 में अब तक जांच उपरान्त 1585 मरीजों को क्षय रोग से ग्रस्त पाया गया तथा स्वास्थ्य विभाग द्वारा इन मरीजों का निःशुल्क उपचार किया गया, जिनमें से बहुत से मरीज इस रोग से मुक्त हो गए हैं तथा अन्य सभी का उपचार अभी चल रहा है।

उन्होंने बताया कि उपचार के दौरान मरीजों को 500 रूपए प्रतिमाह पोषण के लिए सरकार द्वारा दिए जाते हैं।

बैठक. एसटीएस व एसटीएएस को दिये गये जरूरी निर्देश अब निक्षय पोर्टल से होगी टीबी मरीजों की निगरानी

गुरु भ्रमण के दौरान पहचान कर शोध कराए बलगत जांच



बैठक में शामिल एसटीएस व एसटीएएस.

प्रतिनिधि, यमुनानी

बैठक के माध्यम से टीबी मरीजों और उनके इलाज से संबंधित सुधारों और इलाज से बचाव में सुधार को जल्द कार्यालय एसटीएस को निर्दिष्ट किया गया कि एसटीएस को निक्षय पोर्टल पर प्रतिदिन अपडेट किया जा रहा है। इसमें सुधार और निगरानी को लेकर भी सुविधाएँ दी गई हैं।

एसटीएस को टीबी मरीजों की निगरानी के लिए सरकार ने एक नई योजना लागू की है, जिसका उद्देश्य है कि मरीजों को टीबी के लक्षणों के प्रति जागरूक कर दिया जाए।

निक्षय पोर्टल से टीबी मरीजों की निगरानी के लिए सरकार ने एक नई योजना लागू की है, जिसका उद्देश्य है कि मरीजों को टीबी के लक्षणों के प्रति जागरूक कर दिया जाए।



Ph.D. Award Omkar Ray, Sr. Ramanuj Roy, Ph.D. (Ph.D. in Public Health, P.S. Bhopal, Ph.D. 84209)

Advertisement for Jansetu featuring a large 'जानसेतु' logo, contact information, and a detailed article about TB elimination goals for 2025. The article discusses the 'National Tuberculosis Elimination Programme' and the role of the 'TB Mukt Bharat' initiative.