







Issue III: Jan-March 2020

Volume: 01

### In This Issue

•	Post COVID Paradigm	3
•	From Vedic Ages to the year	4
	2025 – A battle to End TB	

- Karnataka State and DTOs review held in Bengaluru
- National Media Sensitisation 7
   Workshop on TB held in
   New Delhi
- BRICS TB Research Network 9
   Meeting at Geneva India
   presents progress report
- Bringing Point of care testing 9 to scale.
- Digital Innovation to 10 improve efforts to End TB
- Workshop on use of 11 Artificial Intelligence in TB Care
- Pediatrics TB Centres of Excellence to be set up in 13 states/UTs
- MoU signed with Academy 12 of Pediatrics to combat burden of TB in children.
- Towards a Gender 13
   responsive approach to TB in
   India What, Why and How
- Jharkhand Committed to achieve SDG targets in the state by 2025 Chief Minister
- Assam's Proactive Response 14 towards TB Care during COVID-19
- Telangana Governor 16 commends TB Champion
- Where there is a will there is 17 a way
- Involving medical colleges under NTEP, a Unique Public Health Intervention
- National Operational 19
   Research Committee –

   Initiatives to strengthen
   NTEP.

















### Dear Readers,

It has been a tumultuous phase for all of us in the last few months. COVID-19 pandemic has brought in a fundamental shift in the perception of one's vulnerability among the masses both individually and collectively cutting across the rich and poor divide.

The COVID-19 pandemic has jolted the public into seeking steps for health and wellness. This like wearing protective masks, ban on spitting so common in India, practising hygiene and washing hands, civic sense coupled with maintaining appropriate social distancing and taking collective responsibility of one's own and community's health will act as a catalyst in transforming the public health in an impactful manner if sustained.

On the other hand, the stigma associated with COVID-19 now has the potential to derail the gains made by our nation. The impact of this on TB can be detrimental if the community avoids/delays seeking care for fear of stigma and ostracism

COVID-19 pandemic has given an entry point to structurally reimagine our core public health delivery systems. More so in the context of respiratory infections and importantly when you have an ambitious goal of ending TB in the country by the year 2025. The National TB Elimination Programme (NTEP), under the Ministry of Health and Family Welfare, has taken several steps that have the potential to become the "new normal" in our endeavour to provide patient-centric TB care.

Innovations such as doorstep delivery of drugs to TB patients, teleconsultation, active screening for TB through outreach activities, etc in response to the pandemic, have proved to be a boon for many patients, during the lockdown who struggled to access public/private health care. The programme in collaboration with the states is ensuring minimal visits to health facilities by the patients who are on treatment by providing sufficient drugs required for more than a month as well as using digital innovations to monitor treatment adherence. All this to ensure there is no inconvenience and interruption in their treatment.

This edition of Nikshaya Patrika carries all the developments and updates of an extraordinary quarter. Hope you find it informative. Happy reading!

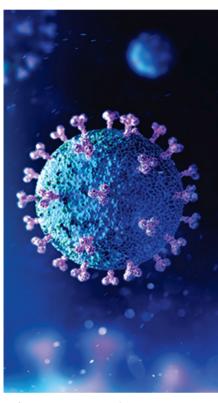
# Editorial Editorial

Dr KS Sachdeva



## A. Post-COVID Paradigm

By Dr K S Sachdeva



A massive social reengineering is taking place globally. The COVID-19 Pandemic has brought dramatic shifts in our lives in more ways than one. The public discourse health has now taken centre stage. And rightfully so. The pandemic has put to strenuous test the health

infrastructure and systems across the world, be it in developed or developing countries. India, with its already overburdened health infrastructure coupled with severely limited resources, has dealt with the current pandemic rather reasonably well as compared to the west, where the causalities have been heavy, despite world-class systems, resources, and infrastructure. COVID-19, therefore, is a watershed moment for public health in the country on two counts.

Firstly, there is heightened public health awareness among the common man today than ever before. COVID-19 and its highly contagious nature have created a huge health- risk perception among the public. However, other diseases have been silently claiming more lives annually in our country. Yet, the awareness and sensitisation regarding them are underwhelming. For instance, Tuberculosis is a disease estimated to be around 9,000 years old as compared to COVID-19 which is more recent. Yet TB suffers from complete invisibilisation. Both diseases have uncanny

similarities. They are airborne, contagious, and can be fatal if left undetected and untreated. Every year there are 27 lakh cases estimated in the country for TB and these are completely preventable and curable. We can stop TB in its tracks with more mass awareness and proactive prevention measures.

The COVID-19 pandemic has provided that opportunity. The public is highly receptive now, more than ever before, to receive risk communications and health messages.

Wearing a mask has become a symbol of care and concern for fellow citizens. On the other hand, the stigma associated with COVID-19 now has the potential to derail the gains made by our nation. The impact of this on TB can be detrimental if the community avoids/delays seeking care for fear of stigma and ostracism. On the brighter side, a sustained behaviour of this nature by the society will act as a force multiplier in effectively dealing with other respiratory illnesses such as TB. The health programmes in the country will evolve out of this and strengthen further.

Secondly, the COVID-19 pandemic has provided us an opportunity to structurally redesign our core public health delivery systems in the context of respiratory infections.

This is a paradigm-shifting opportunity in the health delivery system in the country that has the potential of becoming a norm rather than an exception. The overall public health system is getting an uplift to ensure they are compliant with air-borne infection control measures and the frontline healthcare workers are accustomed to newer protocols.

Redefining service delivery, the programme is going to the doorsteps of the patient to collect samples to aid in early detection, diagnosis, and initiation of the treatment. This exemplifies the programme's resolve to intensify last-mile access and care delivery.



With optimal use of telemedicine and virtual clinics, overcrowding at the health facilities can be reduced and decongested by only allowing referrals to be admitted. Extensive contact tracing, isolation facilities and sanitoria are again back in vogue, thanks to their efficacy and practicality in containing a community level spread under pandemic situations. We are cognizant that the health system needs to migrate

to a more community-centric approach from the current patient-centric care approach. The social and environmental determinants too need to be addressed in the process. Disease surveillance and enforcing public health regulations will become rigorous and not remain a matter of an individual's choice.

The author is the Deputy Director-General and Head, Central TB Division, MoHFW

# B. From Vedic ages to the year 2025 A battle to End TB



The Vedas-1600 BC (oldest Scriptures in the Hindu dharma)

Among all infectious diseases that afflict humans, tuberculosis (TB) remains the deadliest. Tuberculosis an infectious bacterial disease caused Mycobacterium Tuberculosis, which commonly affects the lung. This is also known as Pulmonary TB. However, TB can infect any part of the body except hair and nails. TB is curable and preventable. TB is transmitted to person to person via droplets through the air from the airway and lungs of people with active disease. India has the highest burden of both TB and multi-drug resistant TB (MDR-TB). Estimates of the burden of TB disease are measured in terms of incidence, and mortality annually by the World Health Organization. According to these estimates, India had 26.9 lakh TB cases with an incidence of 199 cases per lakh population in 2019 and 1.3 lakh MDR-TB with an incidence of 9.6 cases per lakh. TB is a leading killer infectious disease in India, which is silently killing 4.49 lakh people every year

According to ancient DNA research on the earliest tuberculosis bacilli indicates that the oldest progenitor species of Mycobacterium tuberculosis originated some 2.6 to 2.8 million years ago in East Africa [2]. According to some studies based on genes, it has been presumed that the TB was present in humans for at

least 15000 years back. The first written account of tuberculosis is found in the Vedas. The most ancient of them all, Rig Veda, 1600 BC calls the disease 'Yaksma' [3]. The Yajurveda advises sufferers of the disease to move to higher altitudes away from the village.

This may, in effect, construe that the traditional doctors (vaidyas) in ancient India believed the disease to be infectious in nature. The Sushruta Samahita, written around 600 BC, recommends that the disease be treated with cow milk, various meats, and rest.



Franciscus Sylvius- A German Physician (1614-1672)

In 1679, Franciscus Sylvius, an Amsterdam based physician, pioneered the use of the term "tubercles" to describe the lesions of phthisis of the lung [4].

He described them by the name of tubercula glandulosa (glandulous tubercles) in his work Opera Medica and described their progression to abscesses, ulcers, and empyema [4]. In addition, Sylvius

also described the association between phthisis and a disease of the lymph glands of the neck called scrofula.[4].

French physician Rene Theophile Hyacinthe Laennec, working at the Necker-Enfants Malades Hospital, devised the stethoscope in 1816. He explained pulmonary and extra-pulmonary tubercles in detail and showed that they were the first phase





Rene Laennec- A French Physician (1781-1826)

phthisis. Laennec's work is Rene Laennec- A French Physician (1781considered have clearly elucidated the pathogenesis tuberculosis and unified the concept of the disease, pulmonary whether extrapulmonary. or In Laennec's time, tuberculosis had become epidemic Europe and its annual

mortality rates aggregated to a high of 800-1,000 per 100,000 population per year. Laennec himself fell to tuberculosis in 1826 [5].

In the 1700s, TB was called "the white plague" due to the paleness of the patients. In that time it also became known as the great white plague and the white death. TB, also received the title of "captain of all these men of death" by John Bunyan in the second half of the XVII century, when the disease reached a high level of death rates in Europe. On March 24, 1882, Dr. Robert Koch announced the discovery of Mycobacterium tuberculosis, the bacteria that causes tuberculosis (TB). During this time, TB killed one out of every seven people living in the United States and Europe.



Robert Koch-German Physician and Microbiologist (1843-1910)

Dr Koch's discovery was the most important step taken the control towards elimination of this deadly disease. A century later, March 24 was designated World TB Day: a day to educate the public about the impact of TB around the world. Thirty-nine years later, the BCG vaccine was introduced for human use and became the most widely used prophylactic strategy to fight TB in the world. BCG (Bacille Calmette-Guerin), the

(intradermal) vaccine has become widely used to combat TB; it relies on a prophylactic administration of live attenuated bacilli to children.

The introduction of antibiotics, such as streptomycin (the first anti-TB drug was discovered by Selman Waksman in April1 943), isoniazid (synthesized in 1912, but introduced 40 years later in 1952) and p-amino salicylic acid (PAS in 1946), led to a TB chemotherapy revolution, as TB mortality rates were

considerably reduced. Subsequently, other anti-TB drugs were also developed and introduced for clinical use, such as ethambutol and rifampicin (discovered in 1966 but introduced in the 1980s), among others. Since the mid-1980s, however, there has been no new first-line drug development to fight the TB causing bacilli. Finally, in 2012, two new drugs Delamanid & Bedaquiline became available for the treatment of MDR-TB after a gap of 40 years.

India has been at the forefront of TB control and research since the start of the 20<sup>th</sup> century. The first open-air sanatorium was established in 1906 by a Christian organization in Tilounia, in the Ajmer district of the north Indian state of Rajasthan. The second came up at Almora in 1912 for isolation and treatment of TB patients.



Bhowali, Almora TB sanatorium established in 1912

In addition, the first TB dispensary was opened in Bombay in 1917, followed by another in Madras. Soon anti-TB societies were formed in Lucknow and Ajmer. In 1939, the TB Association of India (TAI) was established to develop standard methods for managing TB and to develop model training institutions [6]. After independence in 1949, the Central Government of Independent India established a TB Division within the Directorate General of Health Services of the Ministry of Health to oversee the plan [6]. The National TB Programme (NTP) was launched by the Government of India in 1962. In 1993 the WHO declared TB a global public health emergency, being the only disease so far to warrant that designation. The alarming figure of morbidity and mortality of TB in India gave birth to RNTCP pilot project in 1993. In 1997, the RNTCP was launched as a national programme with a plan to scale up in a phased manner and the entire country was covered in 2006. In 2006, WHO introduced a six-point Stop TB Strategy building on the success of DOTS, but also meeting new challenges and in particular HIV-related TB and MDR-TB. However, India achieved complete geographical coverage for diagnostic and treatment



services for MDR-TB in 2013. Central TB Division, MoHFW has developed the National Strategic Plan (NSP-2) for Tuberculosis (2017-2025) to end TB by 2025. Elimination of TB will mean there should be less than one case of TB for a population of 10 lakh by 2025, according to the World Health Organisation (WHO), however, according to NSP, the target of incidence of TB that India has set is to reach a level of 44 per lakh.



PM Modi at End TB Summit "I urge every person, every government, every institution and every representative from the civil society to take up this resolution of playing an active role in building a TB-Free India and reaching out to that last person affected byTB".

On 13th March 2018 at End TB Summit, Prime Minister Narendra Modi launched a campaign to end TB from India by 2025, five years ahead of a globally set deadline. With the intention of End TB by 2025, the name of TB programme has been changed from RNTCP (Revised National Tuberculosis Control Programme) to NTEP (National Tuberculosis Elimination Programme). It is almost a herculean task to eliminate TB by 2025 going by the current scenario, however not impossible. It is a herculean task that needs all-round support of all the stakeholders.

#### References:

- 1) Global Tuberculosis Report-2019 (WHO)
- 2) Stone AC, Wilbur AK, Buikstra JE, Roberts CA. Tuberculosis and leprosy in perspective. Am J Phys Anthropol. 2009; 140 Suppl 49:66-94.
- 3) Zysk, Kenneth G. Medicine in the Veda: Religious Healing in the Veda. New Delhi: Motilal Banarsidas. 1998
- 4) Herzog H. History of tuberculosis. Respiration 1998; 65: 5-15
- 5) Roguin A. Rene Theophile Hyacinthe Laennec (1781-1826): The man behind the stethoscope. Clin Med Res 2006; 4 (3): 230-235
- Agarwal SP, Chauhan LS, Tuberculosis Control in India, New Delhi, Directorate General of Health Services, Ministry of Health and Family Welfare, 2005.
- 7) All photos were taken from www.google.com.

Author: Dr. Sudarsan Mandal Addl.DDG, Central TB Division, MoHFW

# C. Karnataka State and DTOs Review Held in Bengaluru.

Dr Sudarsan Mandal



A meeting was held to review strategies and action plans of Karnataka for accomplishing the End TB targets 2025. The two-day review meeting held on 24-25<sup>th</sup> Feb also included deliberations on how the state can achieve objectives listed in the World Bank project (PTETB) concurrently. The review process included District TB officer's assessment & NTEP implementation and guide districts to fast track the commitment to eliminate TB by the year 2025.

Joint Secretary (NTEP& Policy), GOI- Shri. Vikas Sheel; Commissioner (HFW), Govt. of Karnataka - Shri. Pankaj Kumar Pandey; Mission Director, National Health Mission, Govt. of Karnataka - Shri.



Ramachandran R; DDG -TB, Central TB Division, MoHFW, GOI - Dr. K S Sachdeva; Addl. DDG-TB, CTD, MoHFW, GOI - Dr. Sudarsan Mandal; WHO-NPO- Dr. Ranjani Ramachandran; World Bank Representative – Dr. Ronald U Mutasa; Joint Director-TB, Karnataka - Dr. Ramesh Chandra Reddy participated in the meeting.

The programme began with Dr Ronald U Mutasa, World Bank Representative providing an overview of the "Program for Results "approach as a tool for PTETB. Karnataka is one of the nine states in the country selected by the World Bank for implementation of the project.

Volume: 01



It was followed by a presentation by Dr Anil S, Deputy Director – TB, Karnataka on the strategic plans of the state to end TB.Dr Suresh Shastri<designation> spoke on the utilisation of AB-Ark (Ayushman Bharat Arogya Karnataka) by TB patients. This was followed by a presentation by Dr Sudarsan Mandal (ADDG, CTD, MoHFW) on program monitoring indicators. He underlined the need for the team to timely achieve the set targets for the release of the World Bank funds.

Subsequently, the participants were divided into 4 teams and each prepared a thematic presentation on a given area. The DTO review meeting followed with Dr Anil DD-TB presenting the case findings. Dr KS Sachdeva DDG-TB directed the state to decentralise the Anti-Tuberculosis Treatment (ATT), through the respective PHIs in coordination with Karnataka State AIDS Prevention Society (KSAPS).

Dr Sachdeva also directed the state to initiate Tuberculosis Preventive Treatment (TPT) for all PL-HIV as per the guidelines. He also directed the state to benchmark treatment initiation status at 95% for Drug Sensitive and Drug-Resistant TB patients in both public and private sector. He stated that the state should benchmark the DSTB success rate at 90% and 85% respectively for both the public and private sectors.MD- NHM asked the DTOs to collect district-wise reasons for non-initiation of the treatment of 304 MDR-TB cases.

Joint Secretary directed all DTOs to kick start one day

"Geotagging capture campaign" of all the patients undergoing treatment, through ASHAs using Nikshay Mobile App. Dr Mandal urged DTOs to bridge the gaps in the programme through NIKSHAY to make NTEP activities more efficient.

Further, TB units in Kodagu, Chamarajnagar and three units of Mysore districts have been designated as tribal areas. The respective DTOs were instructed that the patients in these districts are eligible for an honorarium of Rs 750 during diagnosis and directed them to complete the pending payments.

Additionally, the following decisions were taken during the deliberations: All DTOs to complete the payments pending for private practitioners. Districts were asked to explore CSR/DMF/MP funding and prepare draft proposals accordingly and submit to MD-NHM.

Further, it was also recommended to explore the option of incentivizing PHI health staff for making NIKSHAY entries. A detailed budget proposal was asked to be submitted to MD-NHM.

Finally, Dr Mahesh, DTO Koppal shared an innovative practice on how to increase the case notification rates and presumptive TB examination rates. It was well-received by the audience and he was asked to guide other districts on helping them initiate similar good practises. The Koppal case study was asked to be documented and shared with the CTD and published for wider dissemination.

# D. National Media Sensitisation Workshop on TB Held in New Delhi

By VV Sundar



Joint Secretary (Policy & NTEP), DDG (TB) Addl. DDG (TB) and DADG (TB) addressing Health Journalist in Media Sensitization Workshop

Since the launch of the new National Strategic Plan (2017-25), there has been a 38% increase in TB case notifications to the government – from 17.36 lakhs in 2017 to 23.98 lakhs in 2019. This was informed by Mr Vikas Sheel, Joint Secretary, Ministry of Health and Family Welfare, Government of India during a media sensitization workshop on TB held in New Delhi on 12th February at the Press Club of India.

He further added that the government has been successful in closing the notification gap (between estimated incidence and notified cases), referred earlier as the 'missing million', to less than 3 lakhs, through greater engagement with private-sector health care providers. Under the National Strategic Plan (2017-25), the Government of India committed to ending TB by 2025, five years ahead of the SDG target



- 80% reduction in incidence and 90% reduction in mortality by 2025 from a baseline of 2015. For this, the government has ensured adequate budgetary allocations to ensure patients seeking care in the private sector also receive free and standardized treatment. In line with the National Strategic Plan, the government is rolling out private sector engagement programs across the country to engage private providers such as formal and informal doctors, chemists and diagnostic labs, aimed at facilitating appropriate delivery of TB diagnosis and treatment. In 2018, the government partnered with the Global Fund to launch JEET or the Joint Effort for Elimination of TB, a private sector engagement program operating in 45 large cities across the country. To intensify this engagement, the Government of India along with the state governments has already scaled up the model through domestic resources across 125 other districts. This is being further scaled up in 2020. Mr Sheel added, "The TB program has come a long way in the last few years and the increased number of notifications is an important step in the elimination of the disease from the country. The government has reiterated its commitment to provide free-of-cost, high-quality TB care to all patients in the country, including those being treated in the private sector. We are already providing patients in the private sector with diagnostics, UDST and free drugs, since last year." Multiple studies conducted in India through the years have shown that around 25% of TB patients seek care through privatesector health care providers. Recognizing this, in 2012, the Government of India made TB a notifiable disease - each provider was mandated to notify each TB case to the authorities. In 2018, the government further strengthened the policy by issuing a Gazette Notification for mandatory notification along with provisions of penal actions, in case of non-compliance. The government also provides incentives to private providers for notifications and reporting of treatment outcomes. Increasing community participation in the TB program. In the past year, the government has launched TB forums at various levels, including at the

district and block levels. The forums aim to address a range of issues including improving awareness about the TB program initiatives and ensure its high uptake, and address stigma around the disease by engaging with a range of stakeholders including patients, elected leaders (including Gram Pradhans), and health care workers, among others. The program has also worked on building the capacity of TB survivors to serve as TB 'champions' to help others in completing treatment successfully. Till date, over 300 TB champions have been empowered and mentored to supporting over 8000 TB patients.

Going forward, the government aims to scale up community participation by expanding patient mentoring programs, create a grievance redressal mechanism, and expand engagement with Panchayati Raj institutions, self-help groups and other grass-root platforms.

Dr K. S. Sachdeva, Deputy Director-General, Central TB Division, Government of India gave an overview of the achievements of the TB program in 2019. Microscopy centres in 2019 saw an increase of 20% as compared to 2018. Similarly, rapid molecular testing devices have been ramped up from 1180 to 1530 in the year 2019. TB notifications have increased 14% in 2019 as compared to the previous year with overall TB cases reported at 24.05 lakhs in both private and public sector, he added. "In the last few years, India has transitioned from a TB control response to one which focuses on elimination. We have therefore introduced several transformative strategies such as private sector engagement, community participation and a provision for social support, which are changing the way we diagnose, treat and prevent TB," said Dr Sachdeva.

The event was graced by the presence of Shri Vikas Sheel, Join Secretary, MoFHW, GoI; Dr K.S.Sachdeva, Deputy Director-General, Central TB Division, GoI; Dr Sudarsan Mandal, Addl.DDG, Central TB Division, GOI; Dr Nishant Kumar, DADG (CTD). The workshop started at 3:45 pm with a presentation and ended at 5:30 pm with media Q& A session.





# E. BRICS TB Research Network Meeting at Geneva - India Presents Progress Report

By Sanjay Kumar Mattoo

In 2018, an estimated 10 million people fell ill with TB and 1.5 million died from the disease. Brazil, Russia, India, China, and South Africa (BRICS) accounted for 46% of the global disease burden and mortality and altogether spent close to 20 billion USD during the past decade in TB control efforts alone. The network aims to intensify TB research, aligned to achieve the goals and targets of the End TB Strategy and the Sustainable Development Goals.

The WHO /GTB, organized the VII<sup>th</sup> BRICS meeting in Geneva, Switzerland on 5<sup>th</sup>&6<sup>th</sup> March 2020 with twofold objectives:

to review the progress of the activities of the BRICS TB research network (2017-2019),

to develop a roadmap outlining key steps BRICS countries can undertake to strengthen their joint efforts in TB research and innovation in 2020.

Member countries presented an overview of BRICS TB research activities in their respective countries and progress report on the joint projects.

India, in its presentation shared updates on the progress made basis the recommendations from the previous BRICS TB Research Network and the research activities/projects being implemented through the India TB Research Consortium (ITRC) which included Global study for TrueNat validation, Validation of TrueNat for EPTB and Paediatric TB, Validation of 'TB detect kit', Validation of 'TB Concentration & transport Kit' and 'DNA extraction Kit',All oral 4 drug combination Bedaquiline, Delamanid, Linezolid & Clofazimine in XDR-PTB", Repurposing Clofazimine (in 1st line ATT) to shorten the duration of Rx in patients with susceptible TB,Dry Power Inhalation of INH & Rifabutin in DS-TB, the efficacy and safety of two vaccines VPM1002 and Immunovac (Mw) in preventing TB.

### F. Bringing Point of Care Testing to Scale

By Dr Nishant Kumar

Dr Nishant Kumar (DADG-TB) represented MoHF Wand participated in a panel discussion on the theme of "Bringing Point of Care – Lipoarabinomannan based diagnostics to scale" held in Geneva on the sidelines of the 146<sup>TH</sup> session of the WHO Execution Board. The test is based on the detection of mycobacterial lipoarabinomannan (LAM) antigen in urine, also called LF-LAM (Lateral flow urine lipoarabinomannan as a special diagnostic test for (PLHIV with TB). The panel discussion focused on whether this diagnostic can bridge deadly TB testing gaps.

The panel discussion covered a range of issues. Upon being asked the main barriers to the uptake of LAM technologies, Dr Nishant mentioned that about 23000 patients alone require this test annually. The test is for only a small patient population, and therefore it is not a priority for the country right now.

 He underlined the need for pilot studies on the LF-LAM test  He further said, India is implementing an aggressive "test and treat" strategy for HIV. All HIV patients are offered GeneXpert as the initial diagnostic test for TB. Results are available on the same/next day for starting treatment. Moreover, only 43% of the newly enrolled HIV patients have CD4 counts of less than 200. Out of them, only 25% will have symptoms of TB and become eligible for LF LAM test.







With this knowledge of the barriers already existing and newer LAM tests on the horizon, what could be done to ensure that we are better prepared this time around? In response to the query on the way forward in view of the barriers currently existing and the newer LAM tests on the horizon, Dr Nishant Kumar said that we need to prioritize in-country pilot studies for evaluating the test in Indian settings as well as

establish field feasibility and acceptance, Fast track regulatory approvals, Implement and monitor closely, and Develop Quality assurance mechanisms

# Addressing a query on the access plans for the upcoming LAM tests he mentioned that

National AIDS Control Organization is considering the use of LAM test and is in the process of obtaining regulatory approvals.

All patients detected with TB will be offered treatment free of cost and the public health action for the patient and his/her family will be provided by NTEP.

The meeting ended with a vote of thanks to all the participating countries and with a resolve to continuing the efforts for further research in this area and fast track the availability of the test for eligible patients.

# G. Digital Innovations to Improve Efforts to End TB

By Dr Sudarsan Mandal



### Digital Innovation to improve efforts to end TB

Global TB Programme of the World Health Organization (WHO-GTB) and the European Respiratory Society (ERS) held a joint meet on 7 February 2020 at Geneva, Switzerland on the theme of "Digital Innovations, TB and implementation research"

This is the second consultation meeting and comes at a critical juncture when many countries are updating their national TB strategic plans and preparing funding proposals for submission to the Global Fund to Fight AIDS, TB and Malaria. The objective of the meeting was to discuss:

- Progress in the development of the implementation research toolkit and
- Future perspectives relevant to the use and study

of digital innovations to improve efforts against TB.

The meeting discussed experiences and perspectives in implementation science methods to help scale up digital innovations in support of different efforts against TB in the BRICS countries.

Dr. Vitalii Poberezhets (ERS) and Dr. Zelalem Temesgen (Mayo Clinic) co-chaired the meeting. Dr. Dennis Falzon (Team Lead, Prevention, Research, and Innovations, WHO/GTB) welcomed the participants. Dr. Tereza Kasaeva (Director, WHO/GTB) gave opening remarks for the meeting.

Two **objectives** of the meeting were to discuss

Progress in the development of the implementation research toolkit and



Volume: 01



• Future perspectives relevant to the use and study of digital innovations to improve efforts against TB.

# Representatives from six countries were present in the meeting:

India: Dr Sudarsan Mandal, Addl. DDG, CTD, MoHFW presented the vision of India to eliminate TB by 2025 and elucidated the role of digital technologies for accelerating efforts towards this goal. As part of this effort, progress on the implementation of Direct Benefit Transfer (DBT), which is geared towards four different types of beneficiaries in the TB cascade of care was presented. Challenges such as skills

gap in using the technology, bridging the urbanrural digital divide to improve reach, the need for product optimization to improve user experience and accuracy of service provision were presented. Direct Benefit Transfer (Full form) has been modified 4 times according to changing circumstances, and Implementation Research remains central to further improve its impact and reach, said Dr Mandal.

Further, WHO/GTB together with the Special Programme for Research and Training in Tropical Diseases will plan a multi-country workshop to receive inputs on the elements of the implementation research toolkit.

# H. Workshop on the use of Artificial Intelligence in TB Care

Dr Deepak Balasubramanian

A Workshop on Use of Artificial Intelligence under NTEP was held on 29<sup>th</sup> February 2020 in Hotel Hyatt Regency, New Delhi to introduce AI technology and its use in TB healthcare Dr Alpan Raval, Head of Data Science at Wadhwani AI, introduced the concepts and principles of Artificial Intelligence Technology.

The participants in the workshop included CTD Officials, WHO, USAID, NTEP National Consultants, Wadhwani AI, Regional Consultants (joined remotely).

Dr KS Sachdeva DDG-TB expressed his keenness on adopting new and emergent technology and tools in a systematic manner.

The group work was carried out in 4 areas - Detect, Treat, Prevent, Build and facilitated by the CTD officers. Every group identified a list of significant problems and potential AI use cases as solutions to these problems. Following potential solutions were identified:

Theme	Potential Solution
Prevent	Automated reading of C-TB test
	Determinants of Breakdown of disease (from LTBI to active TB)
Detect	LPA Interpretation
	Caseload estimation at zip code levels

Theme	Potential Solution
Treat	Predict Initial loss to follow
	up
	Predict Treatment Adherence
	Predict Adverse drug reaction
	(ADR)
Build	Optimize digitization of data





Workshop on Use of Artificial Intelligence under NTEP was held on 29<sup>th</sup> February 2020 in Hotel Hyatt Regency, New Delhi



# I. Pediatrics TB Centres of Excellence to be set up in 13 states/UTs By Dr Deepak Balasubramanian

In India, about 3,42,000 incident cases of pediatric TB are estimated to occur every year accounting for 31% of the global burden. However, only 44% of the estimated cases are being notified under the programme.

To support National TB Elimination Programme (NTEP) in TB control activities in Pediatric group, a network of Centre of Excellence (pCoE-TB) at the National, Regional and State levels across the country are being set up as per communication sent to States on 13th February 2020.

The broad objectives of the pCoE-TB would be to serve

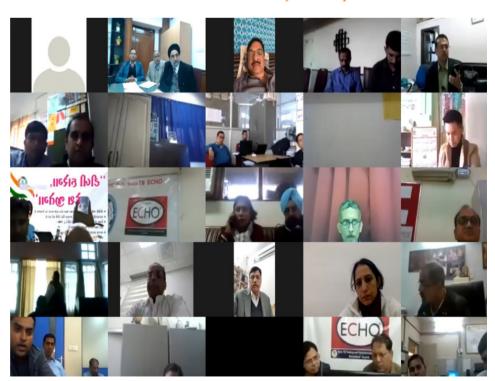
as Model centres for TB care, support and treatment, Increase capacity, knowledge, skills, and abilities for Pediatric TB prevention and control through communication, education, and training activities Improve sustainable evidence-based TB clinical practices and patient care networking and provision of expert medical consultation, Monitoring the clinical and programmatic outcomes of Pediatric TB patients, build capacity of the health system to carry out operational research in TB diagnosis, treatment and prevention aspects, National and Regional pCoE-TB on discussed therole of the pCoE-TB in supporting NTEP, the establishment of ECHO Hub sites and preparing a roadmap for capacity building sessions.

# J. Engagement Activities takes-off with Indian Academy of Pediatrics to combat burden of TB in children

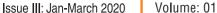
By Dr Deepak Balasubramanian

The Central TB Division has signed a Memorandum of Understanding with the Indian Academy of Pediatrics (IAP) on 10<sup>th</sup> October 2019 to effectively engage with paediatricians across the country for capacity building in Public and Private sector and to notify TB cases and offer public health action in children in less than six years of age.

As part of the collaboration, Indian Academy of Pediatrics would be supporting National TB Elimination programme in training 20,000 doctors, including 18,000 Pediatricians, on Standards of TB Care of India through district level seminars and motivate them to be involved under the programme through



*Videoconference with State NTEP, IAP, WHO consultants and partner organizations* on 13<sup>th</sup> January 2020





offering access to free diagnostics and drugs under the programme. The modules for the training have been finalized by the experts.

As of April 2020, 1 National level consultation, all 5 Regional ToTs (Delhi, Chennai, Hyderabad, Kolkata

and Mumbai) and 17 out of 300 District level training have been conducted, training ~1400 Pediatricians. In addition, 107 Districts across 18 State/UTs have planned their activity, which would be carried out post relaxation of COVID-19 lockdown.

# K. Towards a Gender-responsive approach to TB in India - What, why and how

By Dr Deepak Balasubramanian

The National TB Elimination Programme has developed a National Framework and training modules to ensure gender-sensitive care to people affected by TB and training for providers, both in the public and private sector.



# Towards a Gender-responsive approach to TB in India - What, why and how A training module

Central TB Division, MoHFW

A workshop of stakeholders to finalize national level training modules of National Framework for a gender-responsive approach to TB in India was held under the chairpersonship of Dr Ramila Bisht, Professor, Centre of Social Medicine and Community Health, School of

April 2020

Social Sciences, Jawaharlal Nehru University, New Delhi and co-chairpersonship of Dr Ashwani Khanna, State TB Officer, Delhi on 28<sup>th</sup> January 2020 at National AIDS Control Organization, NACO, New Delhi

The participants in the workshop comprised of gender experts, NTEP representatives from National/State and District level, WHO NTEP consultants, community representatives and partner organizations.

The operational plan for roll-out of 2 batches of two-day training is being readied.

The raining module would help in

- Building the capacity of NTEP programme managers, private sector representatives, civil society & community representatives on gender with respect to health.
- Support the NTEP programme managers and stakeholders to acquire skills for gender-responsive analysis and programme implementation
- Guide the NTEP programme managers, private sector representatives, civil society & community representatives to translate the gender-responsive framework into meaningful action and develop gender-responsive action plans

In line with the principles of publishing gender-disaggregated data, the Annual TB report 2020 has for the first time included state-wise analysis on TB notification, Pediatric TB cases, Treatment initiated, treatment outcomes and human resources under NTEP.

In addition, the NTEP has identified nodal person in each State/UT who will be trained at the National level and coordinate the Gender-responsive activities in the State/UT.



# L. "Jharkhand committed to achieve SDGtargets for TB in the State by 2025" – Chief Minister

By Amitava Banerjee

Shri Sanjeeva Kumar, Special Secretary (Health), MoH&FW, GoI visited the state of Jharkhand in January 2020. During his visit, he met with Shri. Hemant Soren, Hon'ble Chief Minister of Jharkhand and appraised him of the new initiatives and progress made under the NTEP programme. The meeting concluded with the Hon'ble Chief Minister committing to achieve the SDG targets for TB by 2025 and with the assurance that the state will develop the NTEP TB Elimination Strategy Guidance Document at the earliest.



Shri Sanjeeva Kumar also reviewed the performance of the District TB Officers of the state together with the Principal Secretary (Health), Govt of Jharkhand



and the MD National Health Mission. Various aspects of the programme were reviewed and few decisions weretaken such as establishing more Designated Microscopy Centres in tribal districts, increasing examination rates of presumptive TB cases, screening of all notified TB patients for HIV coinfection, mechanisms for sample collection and transportation, the involvement of community members, filling up of existing vacancies and gap analysis of DBT schemes. The State was lauded on its pro-activeness in the engagement of the private sector through the PPSA model and implementing an innovative approach for Schedule H1 surveillance and TB disease burden estimation in the private sector. The highlight of the visit was the launch of the all-oral longer regimen for TB and flagging-off of the National TB Prevalence Survey.

# M. Assam's Proactive Response towards TB Care during COVID 19 By Team Assam

Emergence of the Covid-19 pandemic across the world necessitated all the states to take pro-active measures and innovations to overcome the bottle-necks and ensure uninterrupted service delivery for the TB patients. The state of Assam took some innovative approaches during this hour of crisis.

Building on the Advisories in the form of DO letter from Central TB Division, Govt of India following measures were undertaken by the state:

- Dissemination of the advisories among all the districts
- Periodic Video Conference through ECHO platform to review various activities
- Stock analysis of drugs, CBNAAT cartridges and laboratory materials
- Drug stock analysis in the districts against the



existing number of patients to ensure availability of at least 2 months stock of drugs in districts during the lock-down period

Following a video conference conducted with all districts for disseminating the directives from GoI, all districts initiated the process of ensuring drug supplies for the existing 20,000 (approx.) no of patients adopting various mechanisms such as home delivery of the drugs by NTEP staffs including DTOs and through community volunteers including ASHAs. Officials vehicles of DTOs/ MOTCs / STS / STLS were engaged for supplying ATT to the patients and Govt pass for staffs and vehicles were provided to the staffs for movement within the district for ensuring drug supplies.



Ensuring uninterrupted provision of ATT to TB patient residence by DTO (Morigaon) and STS (Sonitpur)

# 1. Sample Collection & Transportation for Universal DST and LPA:

Following the VC on 8<sup>th</sup> April'20, districts were clubbed for arranging transportation of samples for LPA to IRL and also for collecting drugs from State Drug Store in Guwahati. This approach ensured not only sample transportation for LPA but also ensuring drug collection and delivery to the districts. Sample collection and transportation in the districts were facilitated not only by the STS, STLS, TB-HVs, LTs but also by the NTEP drivers during the lock-down period.

### 2. DR-TB service at doorstep

An unique example of the dedication of a District PMDT Coordinator of Dibrugarh district, he visited the residence of a bed-ridden DR-TB patient and conducted bed-side ECG on the patient and collected blood samples for pre-treatment investigations and the patient is currently on domiciliary treatment.



PMDT Co-ordinator of Dibrugarh district providing bedside service for a bed-ridden DRTB patients

# 3. Telephonic follow-up and counselling of TB Patients (Supplemented by Partners):

To overcome the issue of one to one follow-up and counselling of the TB patients during the on-going lock-down period, support of the existing staffs under JEET project were also garnered to supplement the efforts of the NTEP staffs. A VC was conducted with all districts in presence of officials and staffs of JEET project staffs wherein mechanism were worked out to collect a list of TB patients from difficult to reach areas (TB Units / PHIs) which was shared with the JEET project officials and staffs irrespective of their jurisdiction. JEET State Lead as per direction and guidance of STO, WHO Consultants and state team planned a strategy to follow-up and counsel TB patients over telephone involving 43 staffs of JEET project.

Following telephonic counselling, patients who were facing difficulties in accessing drugs were linked to their respective STS and nearest PHIs for ensuring drug supply for at least a month. This service was offered to both public and private patients. Many districts also sensitized ASHA workers to visit TB patients during the COVID 19 locked down period for counselling and supervise TB treatment. The JEET team could reach to ~ 2500 TB patients since 11<sup>th</sup> April'20.



### 4. Activities of State and District TB Cell team during Covid-19 lock-down period



NTEP team of Kokrajhar district on field duty for drug distribution in a remote village bordering Bhutan



TB surveillance and sample collection along with the ongoing Community Surveillance Programme for Covid-19 (Nalbari district)



Commissioner & Secretary Health & FW Deptt., Govt. of Assam along with Director of Health Services, and Addl. DHS (SP) cum SPO, NTEP Assam along with STC Officials during a VC with District team



Order from Jt DHS of Sibsagar district on inclusion of TB surveillance and testing during Community surveillance for ILI and SARI for Covid response. All districts to follow similar activities.

# N. Telangana Governor Commends TB Champion



Dr. Tamilisai Soundararajan, Hon'ble Governor, A Shanti Kumari, IAS, Special Chief Secretary, H,M&FW, Dr. Yogita Rana, Commissioner, H,M&FW & MD, NHM, Dr. K Jayakrishna, Telangana,

Family support plays a critical role for the TB patients to overcome the challenges during the treatment phase. This helps in adherence and keeps the motivational level of the patients high. The story of TB Champion Srilatha is a good example of the importance of family support.

Srilatha was diagnosed with TB in the year 2018. She completed her entire six months of treatment course and got cured. Now as a TB



Champion she is actively getting involved in the TB control program awareness and counselling activities. Srilatha is married and has a four-year-old daughter. Her husband is very supportive of her. During the treatment phase, he never allowed her to feel depressed and always kept her in good humour. Her in-laws gave her all the support in the fight against TB. She never felt isolated from the family. Her husband and in-laws never made any discrimination in her daily lifestyle. She was accepted as a normal part of the family. Her husband took special care about diet. Though Srilatha cleared only her tenth class, they motivated her to join in Open University to finish her graduation. Srilatha's parents also stay close by so they also extended their

support as and when required. Srilatha stays near Secunderabad, Hyderabad. As a TB Champion now she is actively supporting the TB staff. She also helps to mentor another TB patient in local area.

During one of the interactive meetings, Dr. Tamilisai Soundararajan, Hon'ble Governor of Telangana also appreciated the efforts made by the TB Champion Srilatha. Hon'ble Governor especially congratulated Srilatha on her works at the community level. Smt. A Shanti Kumari, IAS, Special Chief Secretary, H,M&FW, Dr. Yogita Rana, Commissioner, H,M&FW & MD, NHM, Dr. K Jayakrishna, WHO Consultant and others were also present on the occasion.

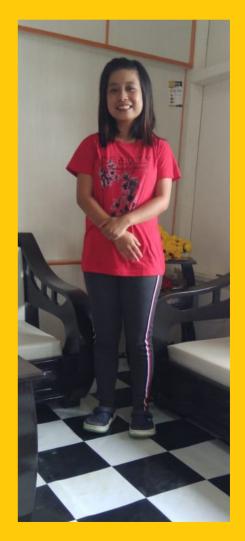
# O. Where There is a will There is a way

Lalawmpuii, a 19-year-old college student from a village of Thingkah, Lawngtlai district, Mizoram was diagnosed with TB in 2019. In March 2019, Lalawmpuii developed a loss of appetite, weight loss, tiredness, and uneasiness in the stomach. She went to a local doctor who gave her medication. But after a week she returned to the doctor because she did not find any improvement. Finally, the doctor referred her to Aizawl. After investigations, the doctor declared it as a clinically diagnosed TB. She was told to go to the District TB Centre, Lawngtlai to start the treatment.

Lalawmpuii was scared when she found out that TB treatment usually lasts six months because it felt like a very long time. Moreover, at one point she became so unwell that she had to stop her college for several months during the TB therapy. Butfortunately, she had her mother always by her side in the times of need. 'One of the people who helped me stick to the treatment for TB was my mother. She was always so encouraging and supportive in my times of poor health and illness' said Lalawmpuii.

She started medication under the observation of the DOT provider. A week into the treatment, side effects from the medicine took a toll on her. She started itching and had a constant uneasiness in the stomach. But, she immediately consulted the doctor and a few weeks later, she gradually recovered from side effects.

She completed her TB treatment and recovered fully. She is now looking forward to starting a happy and normal life.





# P. Involving Medical Colleges under NTEP, a Unique Public Health Intervention

By Dr Ravinder Kumar

Systematic involvement of Medical Colleges under the NTEP through the Task Force is one of the unique mechanisms in public health interventions in India. Since the inception of NTEP, the Medical Colleges play important roles in service delivery (particularly drug-resistant TB services), teaching and training on the national guidelines of TB management, technical inputs in preparing guidelines and operational research.

Under the National Tuberculosis Elimination Programme (NTEP), the medical colleges are involved through a mechanism of Task Forces at the National, Zonal and State levels and through core committee at the college level.

The Zonal Task Force (ZTF) workshop of South Zone-1 was convened on 4<sup>th</sup> - 5<sup>th</sup> Nov 2019 at Guntur Medical College, Guntur, Andhra Pradesh. There were detailed deliberations and had ten technical sessions with the presence of Dr. Ravinder Kumar, Specialist (TB) from

CTD, Dr. D. Behera, NTF Chair, Dr. Anil J Purty, NTF Vice Chair, Dr. Manmohan Puri, NITRD New Delhi, Dr. Subhakar Kandi, ZTF South Zone-I Chairperson, Dr. T Rama Rao, State TB Officer, Andhra Pradesh, Dr. G Sambasiva Rao, STF Chairperson, Andhra Pradesh, Dr. G Subba Rao, Principal, Guntur Medical College, Dr. Yasmin, DMHO, Guntur District, CTD Consultants, STOs of participating States & WHO Consultants of South Zone-1 States including other Chairs & office bearers of State Task Force (STF) of participating States viz. Andhra Pradesh, Karnataka, Telangana and Faculty Representatives from the Medical Colleges of all 3 States of the region.

The ZTF Workshop (South Zone-1) Inaugurated by Sh. Samuel Anand Kumar, District Collector, Guntur as a Chief Guest. Dr. G Sambasiva Rao, STF Chairperson, Andhra Pradesh welcomed all the participants. The Chief Guest, Mr. I Samuel Anand Kumar, District Collector said that TB has to be ended by 2025, five years ahead of SDG target, 2030, and if









India achieves it, the World will be able to end it. He further stressed that medical colleges need to take the lead in teaching, training and implementation of NTEP. The honorable Chief Guest was felicitated by Dr. Behera and Dr. Subhakar Kandi. Later, Dr. Behera in his message told that TB is not an easy disease to deal since Clinical dimension is small, but the Social and public health dimensions make it a complex problem. A holistic approach is required to tackle it. Dr. Subhakar Kandi, ZTF South Zone-I Chairperson in

his address spoke about experiences and bottlenecks in the implementation of NTEP in medical colleges in the region.

Dr. Manmohan Puri in his message congratulated Dr. Subhakar Kandi for the wonderful organization of the ZTF workshop. This was followed by the felicitation of all the dignitaries on the Dais and off the Dais. The Inauguration Programme concluded with Vote of thanks from Dr Ramesh, District TB Officer.

# Q. National Operational Research Committee: Initiatives to strengthen NTEP

Dr Somenath Karmakar Consultants SAG

National TB elimination programme (NTEP) has been actively involved in conducting operation Research (OR). This helps the programme to develop in-country evidence to guide the programme for management-policy decisions.

Central TB Division has constituted the National Operational Research Committee (NORC) to review OR proposals presented at CTD and to recommend for final approval by the competent authorities.

The year 2020 saw some of the newer priority areas for OR. Some of these newer areas were:

- TB prevalence survey in special groups, tribal's, migrants, slums, pediatric population etc and study of its unique dynamics (epidemiological factors).
- 2. Studies on Non-tubercular Mycobacterium (NTM).
- 3. Studies on biomarkers of TB for diagnosis; prognosis and cure or its attribution to cell-mediated immune status.
- Studies on baseline INH resistance in community and its relevance in relation to INH prophylaxis.

Yoga- Ayurveda intervention studies to see if there are any beneficial effects of Yoga / Ayurvedic regime along with conventional drug treatment for better – earlier treatment outcomes and amelioration of druginduced effects.

First meeting of NORC (2020) was held on 12<sup>th</sup> &13<sup>th</sup> March 2020 at National Institute of TB and Respiratory Diseases (NITRD), New Delhi under the chairmanship of Dr. DCS Reddy, retired Head of Department, Institute of Medical Sciences, Banaras Hindu University.

CTD received an overwhelming 71 OR proposals this year. After applying pre-defined evaluation criteria 31 proposals were presented before the said OR committee meeting. There were 7 revised (discussed in the previous meeting and revised as per the suggestions of the committee) proposal- presentation also. Committee also reviewed the progress made by 8 ongoing projects (3NTEP funded & 5Global Fund funded).

One of the important agenda of the National Operational Research Committee meeting was to review a proposal for strengthening National Institute of Tuberculosis (NTI) Bangalore as a National Research Cell - a decentralization of Operational Research Mechanism. National Research Cell (NRC) shall act as a nodal centre to promote and fund high-quality research studies across the country, optimize research proposals to increase efficiency, build the capacity of prospective researchers across the country, and facilitate to conduct of collaborative and commissioned research for Program and Policy Advocacy at regional and national levels. Committee reviewed the proposal of NRC and recommended the proposal of decentralization and strengthening of NTEP operational research mechanism.





# **♦**The Indian EXPRESS

Saturday, January 04, 2020

# A long fight

### Country must unite in the effort to eradicate tuberculosis by 2025



Harsh Vardhan

AT THE End TB Summit, 2018, the prime minister of India made a bold commitment to end tuberculosis by 2025 - five years ahead of the global target. To many, this goal may seem unattainable, but as someone who has worked at the grass roots all his life and had the privilege to dream of a polio-free India - and work for it for almost two decades - I believe it is possible, if we come together as a country to fight TB the way we did for polio.

India still has the highest TB burden in the world and despite the disease being fully curable, people still die from it. TB usually affects people in their most productive years and drives families into debt. It has a

Academy of Paediatrics, to ensure patientcentric care as per "Standards of TB Care in India" (STCI). A key challenge is building a forward-looking plan to address and control drug resistance, a man-made menace that is a major roadblock in our fight against TB. Every TB patient must be tested for drug resistance at the first point of care, whether in the public or private sector, to rule out any drug resistance.

Sincere efforts are also being made to make our health systems more accessible and reliable. Our government wants to ensure that those seeking care trust us and get the appropriate care for completing treatment. We are striving to create more labs, point of care tests, an assured drug pipeline, access to new drugs and, most importantly, provide counselling and support for those affected

Every patient who is diagnosed late and does not receive timely treatment continues to infect others. How do we break this cycle of transmission? The government machinery at the field level should work with communities and prodirect link to human suffering, discrimina-tion and also powerty. Due to its infectious spread, it directly affects our economic growth as well. But, with resilience, suffi-cient investment, innovative approaches and strategies and the participation of all stakeholders, TB can be defeated. The first step is the creation of aware-ness and empowering of communities. TB affects millions, yet very few know enough about it. We need a multilingual, multi-stakeholder awareness effort to ensure that every single Indian knows about the chal-lenges of TB and where to seek treatment.

s of TB and where to seek treatment Today, with the expansion of the media, es pecially in regional languages, and evolve ing technology, we can reach everyone with the right information. This is the first step towards ensuring that people are em-powered with the necessary information to identify and recognise TB symptoms, and seek diagnosis and treatment.

The second step is ensuring that we pro vide every Indian with access to correct di gnosis and treatment for TB, regardless of agnosis and treatment for TB, regardless of their ability to pay for it. This can only hap-pen if we work with the private sector as we did in the case of polio. We need to go door to door, identify TB patients, and pro-vide each of them care with compassion. Today, there are numerous innovative prirate sector programmes and partnership schemes for TB. These have been formuschemes for 18. These have been formu-lated keeping in mind the needs of the pri-vate sector and those of patients' right to choose where to seek treatment.

I invite and urge the private sector to partner with the government. Our recently launched programmes for doctors and labs offer them various incentives and our offer them various incentives and our health personnel are keen to work with them at all levels. We have made our processes simpler; we will make them sim-pler still. Even today, about half a million TB cases go unnotified, especially those seeking care in the private sector. We must those in need of care and treatment are able to access it. We are also working with the private sector through organisations like the Indian Medical Association and Indian

vide free diagnosis and treatment to every affected individual. We also need to look affected individual. We also need to look beyond treatment. Recognising that medicines are not enough, we launched the Nikshay Poshan Yojana — besides numerous other schemes — under which TB patients receive Rs 500 every month while on treatment to ensure that the patients have economic support and nutrition during the required period.

We need to come together as a country to fight the disease and end the stigma surrounding it so that every natient can seek

rounding it, so that every patient can seek care that is free from discrimination and care that is free from discrimination and with dignity. The community must act as a source of support for the patient. This will only happen as we educate more and more people about the nature of the disease. On September 25, 2019, the TB Harega

On September 25, 2019, the TB Harega Desh Jeetega Campaign' was launched to accelerate the efforts to end TB by 2025. By employing a "multi-sectoral and commu-nity-led" approach, we are building a na-tional movement to end TB by 2025. We have accordingly increased resource allohave accordingly increased resource allo-cation towards the TB Elimination Programme four-fold and are confident of achieving our targets. The government has established a strong network of diagnostic and treatment centres and all drugs and diagnostic are provided free to all types of

TB patients.

The campaign aims to initiate preventive and promotive health approaches, and proposes potentially transformative interventions such as engagement with the private sector healthcare providers, inter-ministerial partnerships, corporate sector engagement, latent TB infection manage-

ment and community engagement. As long as our people continue to die every year from this preventable and treat-able disease, we are failing in our duties as citizens, doctors, administrators and pub-lic health professionals. We must join hands to ensure a TB-free India. Each one of us can make a difference.

The writer is minister of health & family welfare, science & technology and earth sciences, Government of India



@drharshvardhan





# तरह खत्म करने पर ध्यान

दिल्ली । टीबी के विषय पर नई दिल्ली में हुई एक मीडिया कार्यशाला में बोलते हुए भारत सरकार के स्वास्थ्य एवं परिवार कल्याण मंत्रालय में संयुक्त सचिव श्री विकासशील ने बताया कि राष्ट्रीय रणनीतिक योजना (२०१७-२५) लागू होने के परिणामस्वरूप, सरकार के पास टीबी रोगियों की

अधिसूचना में ३८ प्रतिशत की वृद्धि हुई है, वर्ष २०१७ में १७.३६ लाख से बढ़क वर्ष २०१९ में २३.९८ लाख। उन्होंने अपनी बात को आगे बढ़ाते हुए कहा कि सरकार टीबी मरीजों की अधिसचना के सम्बन्ध में व्यापक कमी (संभावित और निश्चित केस) जिसे यानि लाखों विल्पा से संदर्भित किया जाता है को समाप्त करने में सफल रही



पहली बार ६.५० लाख टीबी रोजिया की सचना प्राइवेट सेक्टर से प्राप्त हुई- स्वास्क्य एवं परिवार कल्याण मंत्रालय

है। क्योंकि अब यह संख्या लाखों विलुप्त के सापेक्ष मात्र तीन लाख रह गयी है, जिसमें निश्चित रूप से प्राइवेट सेक्टर के स्वास्थ्य सेवा प्रदाताओं का बहुमूल्य सहयोग रहा है। राष्ट्रीय रणनीतिक योजना (२०१७-२५) के अंतर्गत भारत सरकार वर्ष २०२५ तक टीबी को समाप्त करने के लिए प्रतिबद्ध है। मरकार देश भर में पारवेट मेक्टर के म्वाम्थ्य प्रताताओं को अपने साथ जोड रही है जिनमें औपचारिक व अनौपचारिक डाक्टर, केमिस्ट और डायग्रोस्टिक लैब्स शामिल है। भारत में हुए बहुत से अध्ययनों में सामने आया है कि ज्यादात टीबी रोगी प्राइवेट सेक्टर के स्वास्थ्य प्रदाताओं से इलाज

कराते हैं। इस तथ्य के मद्देनजर वर्ष २०१२ में भारत सरकार ने टीबी को अधिसूचना योग्य बीमारी घोषित कर दिया। टीबी उन्मूलन कार्यक्रम के अंतर्गत यह भी किया गया है कि जो रोगी टीबी का इलाज कराकर ठीक हो चुके हैं, उन्हें टीबी चैम्पियन के तौर पर काम करने के लिए तैयार किया जाए ताकि वे अन्य रोगियों को सफलतापर्वक

इलाज पूरा करने में मदद कर सकें। अब तक ३०० ह अधिक टीबी चैम्पियन तैयार किए जा चुके है। पिछले कुछ वर्षों में टीबी को लेकर भारत का रूख बदला है, अब हम महज टीबी नियंत्रण प्रतिक्रिया नहीं कर रहे बल्कि इसे पूरी तरह खत्म करने पर ध्यान दे रहे हैं।

### पहली बार 6.50 लाख टीबी रोगियों की सूचना प्राइवेट सेक्टर से प्राप्त हुई : स्वास्थ्य एवं परिवार कल्याण मंत्रालय

नई दिल्ली। टीबी के विषय पर नई दिल्ली में हुई एक मीडिया कार्यशाला में बोलते हुए, भारत सरकार के स्वास्थ्य एवं परिवार कल्याण मंत्रालय में संयुक्त सचिव विकास शील ने बताया कि राष्ट्रीय रणनीतिक योजना (2017-25) लागू होने के परिणामस्वरूप. सरकार के पास टीबी रोगियों की अधिसूचना में 38 प्रतिशत की वृद्धि हुई है; वर्ष 2017 में 17.36 लाख से बढकर वर्ष 2019 में 23.98 लाख। उन्होंने अपनी बात को आगे बढाते हुए कहा कि टीबी मरीजों अधिसूचना के सम्बन्ध में व्यापक (संभावित और निश्चित

केस) जिसे missing millions यानि 'लाखों विलुप्त' से संदर्भित किया जाता है, को समाप्त करने में सफल रही है। क्योंकि अब यह संख्या 'लाखों विलुप्त' के सापेक्ष मात्र 3 लाख रह गयी है, जिसमें निश्चित रूप से प्राइवेट सेक्टर के स्वास्थ्य सेवा प्रदाताओं का बहमल्य सहयोग रहा है।

राष्ट्रीय रणनीतिक योजना के अंतर्गत भारत सरकार वर्ष 2025 तक टीबी को समाप्त करने के लिए प्रतिबद्ध है; सतत् विकास लक्ष्यों की प्राप्ति के लिए तय समय सीमा से यह पांच वर्ष पहले की तारीख है। वर्ष 2015 के आंकड़ों को आधार बना कर यह लक्ष्य रखा गया है कि टीबी की घटनाओं में 80 प्रतिशत की कमी तथा टीबी से होने वाली मौतों में 90 प्रतिशत की कमी लाई जाएगी। इसके लिए, सरकार ने पर्याप्त बजट का आवंटन सुनिश्चित किया है ताकि प्राइवेट सेक्टर में इलाज कराने वाले मरीजों को भी निःशुल्क और मानकीकृत इलाज मिले। राष्ट्रीय रणनीतिक योजना के तहत सरकार देश भर में पाइवेट सेक्टर के स्वास्थ्य पदाताओं को अपने साथ जोड़ रही है जिनमें औपचारिक व अनौपचारिक डॉक्टर, केमिस्ट और डायग्नोस्टिक लैब्स शामिल हैं ताकि टीबी डायग्नोसिस और उपचार को सुगमता से जरूरतमंदों तक पहुंचाया जा सके।

Editor-in-Chief: Smt. Arti Ahuja, Addl. Secretary (Health) & DG (NTEP), MoHFW | Editorial Advisor: Shri Vikas Sheel, Joint Secretary (Policy, NTEP), MoHFW | Executive Editor: Dr. K. S. Sachdeva (DDG-TB), Central TB Division | Managing Editor: Dr. Sudarsan Mandal, Addl. DDG-TB, Central TB Division Editorial Board: Dr. Somenath Karmakar (Consultant SAG), Dr. Ritu Gupta (ADDG cum Consultant), Dr. Sanjay Mattoo (Joint Director) Dr. Raghuram Rao (DADG), Dr. Nishant Kumar (DADG), Dr. Ravinder Kumar (TB Specialist), Central TB Division | Editorial Coordinator: Mr. VV Sundar, Mrs. Richa Bharti, Mr. Amitava Banerjee Design & Layout - WHO and Richa Bharti