

# Employer Led Model for Tuberculosis Care & Prevention

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## Operational Guidelines







स्वास्थ्य एवं परिवार कल्याण मंत्रालय  
भारत सरकार



# Employer Led Model for Tuberculosis Care and Prevention

## Operational Guidelines

**Central TB Division**

**Ministry of Health and Family Welfare**

**Government of India**

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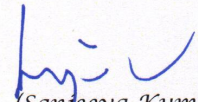
Message

India has set herself a target of 2025 to eliminate TB, five years before the Sustainable Development Goals target of 2030. Proactive measures are imperative if this goal is to be achieved. Prevention and early diagnosis of TB are as important as treatment and care in the strategy to end TB. The Operational Guidelines for the Employer Led Model for TB Care and Prevention will be a step forward in this direction.

Eliminating TB among groups of populations that are more vulnerable to the disease is a major challenge. Populations employed in industries such as mining, stone crushing, glass and cotton manufacturing, and tea gardens among others are more susceptible to TB, especially because of their working conditions where they are exposed to hazardous pollutants. An unhealthy workforce has its macroeconomic implications. In order to counter the scenario effectively, the National Strategic Plan (2017-2025) has included Active Case Finding among key populations and preventing the development of active TB in people in the high-risk groups as two of its priority areas. The Employer Led Model for TB Care and Prevention will align with these thrust areas and help to tackle TB among working populations.

This model provides an opportunity for industries and businesses to join India's response to TB. A collaborative multi-sectoral approach is the way forward. The National AIDS Control Program has already demonstrated the potential of the Employer Led Model.

The Operational Guidelines will provide a comprehensive framework for implementing the model crosscutting all stakeholders, including the Revised National Tuberculosis Control Programme, managements of industries and other civil society stakeholders. I am confident that the Employer Led Model will expedite the process of TB elimination and encourage more stakeholder to join hands for the mission of a TB-free India.

  
(Sanjeeva Kumar)







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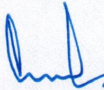
### Message

TB is a public health crisis in India and is one of the leading cause of death form an infectious agent. Although there is a decline in the incidence of about 2-3 % per year, more needs to be done to achieve rapid decline. The End TB Strategy also envisages Multi-Sectoral Engagement among other strategies.

Many occupations are associated with increased risk of Tuberculosis such as those working in mines, industries etc. Tuberculosis affects most in the most productive age group of 18- 55 years which forms major proportion of industrial workforce. TB among workforce can be a reason of loss in productivity and business may lose due to it. The working environment also at times is conducive to the cause and spread of the disease. The workers may in turn also infect their family members. There is also some extent of stigma associated with TB at workplace. It therefore becomes very necessary for the workplace to have a comprehensive approach to address TB among workers.

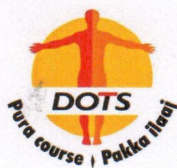
It is also equally understood that the employers and the management are best positioned to address the issue of tuberculosis among workforce. They have the expertise and, the resources required to implement or strengthen the TB Control activities. Most industries have qualified medical officers and well-equipped laboratories with their system and all that is required is proper linkages with the State/ District TB cell so that there is partnership between the two.

The operative guidelines on Employer Led Model will be useful tool for understanding and strengthening collaborations between the State/ District TB cell and the private /public sector. It clearly highlights the areas of support that the State/District TB cell can provide to the establishments as well as the role of establishment in addressing TB at workplace.

  
24/6/19  
(Vikas Sheel)







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### Message

India is committed to its goal of rapidly declining burden TB, its mortality and morbidity by 2025. The National Strategic Plan 2017-25 proposes thrust areas while working towards its elimination. One of the thrust areas is specific protection for prevention from development of active TB in high risk groups. People working in mines, tea gardens and industries etc. also fall under this group. These group of populations have either increased exposure to TB due to their place of living or work, have limited access to quality TB services or are at increased risk due to biological or behavioural factors that compromise immune system.

TB is a social problem with multiple determinants and hence needs multispectral response. Through Inter-ministerial and inter-sectoral Coordination, MoHFW aims to reach key populations served by various ministries & PSUs such as workers, miners, migrants, tribal population, women and children etc.

There was a need of a document which will guide the states and districts on how to involve private and public sector undertakings to contribute towards elimination of TB in among the workforce in their settings. REACH has piloted Employer Led Model in tea gardens in Dibrugarh and Tinsukhia districts of Assam and has also done pioneering work in mining industries in Odisha and also other priority states. Based on its learning and experience, REACH has come up with Operational Guidelines for Employer Led Model for Tuberculosis Care and prevention. These guidelines will help in building, strengthening and maintaining collaboration. These guidelines comprise of the step by step guidance on implementing the model, its documentation reporting and mentoring support.

I am sure these Operational guidelines will be a useful reference material for both state and district level to set up Employer Led Model in their areas of work.

(Dr. Kuldeep Singh Sachdeva)





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## Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
AIAI	All India Association of Industries
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
ASSOCHAM	The Associated Chambers of Commerce and Industry of India
ATT	Anti-Tuberculosis Therapy
AWW	Anganwadi Worker
CDMO	Chief District Medical Health Officer
CII	Confederation of Indian Industry
CSO	Civil Society Organisation
CHC	Community Health Centre
CMO	Chief Medical Officer
CSR	Corporate Social Responsibility
CTD	Central TB Division
DM	District Magistrate
DMC	Designated Microscopy Centre
DOTS	Directly Observed Treatment, Short-Course
DST	Drug Susceptibility Testing
DR-TB	Drug Resistant Tuberculosis
DS-TB	Drug Sensitive Tuberculosis
DTC	District Tuberculosis Centre
DTO	District Tuberculosis Officer
DTF	District Tuberculosis Forum
ELM	Employer Led Model
EPTB	Extra-Pulmonary Tuberculosis
FICCI	Federation of Indian Chambers of Commerce & Industry
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
ICF	Intensive Case Finding
IPT	Isoniazid Preventive Therapy
LT	Laboratory Technician
LTBI	Latent TB Infection
MDR-TB	Multi Drug Resistant Tuberculosis

MO-TC	Medical Officer – Tuberculosis Control
NACO	National AIDS Control Organisation
NGO	Non-Governmental Organisation
NRLs	National Reference Laboratories
NHM	National Health Mission
NSP	National Strategic Plan
OPD	Out Patient Department
ORW	Out Reach Worker
PHC	Primary Health Centre
PLHIV	People Living with HIV/AIDS
PP	Private Practitioner/Provider
PT	Preventive Therapy
PTB	Pulmonary Tuberculosis
PWB	Patient Wise Box
Q/A	Question and Answer
REACH	Resource Group for Education and Advocacy for Community Health
RNTCP	Revised National Tuberculosis Control Programme
SC	Sub Centre
STO	State Tuberculosis Officer
STC	State Tuberculosis Cell
TB	Tuberculosis
TBC2A	TB Call to Action
TU	Tuberculosis Unit
USAID	United States Agency for International Development
VHSC	Village Health and Sanitation Committee
WHO	World Health Organization
XDR	Extensively Drug Resistant



# Key Definitions

The *organised sector*, also known as the *formal sector*, consists of non-agricultural industries in the private sector that have 10 workers or more and all establishments, irrespective of size, in the public sector. A number of manufacturing establishments, transport, storage and communication enterprises, hospitality, community, social and personal services, among others, form the formal sector.

A formal workforce has legal status and enjoys social protection and welfare facilities which may include paid leave, Employees' State Insurance (ESI), provident fund, pension, gratuity, maternity and health benefits, etc. Many formal sector industries also employ informal workforce who do not generally receive any of the above privileges. The management structure of establishments/ enterprises in the organised sector varies.

The National Commission for Enterprises in the Unorganized Sector (NCEUIS) defines *informal workers* or *unorganised workers* thus: "Unorganized workers consist of those working in unorganized enterprises or households, excluding regular workers with social security benefits and workers in the formal sector without any employment/ social security benefits provided by employers" (NCEUIS, 2007).

The *unorganised sector*, also known as *informal sector*, consists of all unincorporated private enterprises owned by individuals

or households engaged in the sale and production of goods and services, operated on a proprietary or partnership basis, and with less than a total of 10 workers (NCEUS, 2009). According to the National Statistical Commission (NSC), the unorganised or informal sector constitutes a pivotal part of the Indian economy. The commission notes that more than 90 percent of the workforce and about 50 percent of the national product are accounted for by the informal economy.

Key actors in an ELM include the board of Directors, CEOs or Managing Directors who are decision makers and need to be convinced to initiate the ELM programme. A company's workforce would be the main beneficiaries of the ELM programme. Key facilitators include the human resources (HR) and welfare departments, contractors and the Corporate Social Responsibility (CSR) department.

Government/Public Sector Undertakings (PSU) includes an *enterprise*, which is wholly owned/ run/managed by central or state governments, quasi-government institutions, local bodies such as universities, education boards, municipalities, etc.

In this document, the term *establishments* has been used as a collective term for mines, tea gardens and other industries.

# Introduction

India bears the world's highest burden of TB, with approximately a quarter of all TB cases in the world. In 2017, around 4.1 lakh people died of TB in India and every year, an estimated 1.35 lakh people are affected by drug-resistant TB (Global TB Report, 2018).

The TB response in India is led by the Revised National TB Control Programme or the RNTCP, which aims at providing universal access to quality diagnosis and treatment for all people with TB in the community. The Government of India has committed to TB elimination by 2025 and has called for all stakeholders to come together to achieve this bold vision, as articulated in the new National Strategic Plan for 2017-2025.

## About this Handbook

This handbook of operational guidelines has been designed to introduce readers to the Employer Led Model (ELM) and present a framework for implementation of the programme. This handbook provides a detailed description of the implementation process along with tools for monitoring progress and reporting formats. This handbook will serve as a ready reckoner for all managers and implementers of ELM, from the state level to the field and ensure a uniform understanding of ELM and its implementation.

This handbook is intended for two key stakeholders – the TB program at the state/district level and the industries who are implementing or keen to implement ELM. The document can also be used by all stakeholders who could lead/facilitate the roll-out of ELM, including industry associations, District Collectors and Magistrates, District Medical Officers, CEOs/Managing Directors of the establishments, owners, all HR and health staff in the establishments, NGOs, civil society organisations engaged in implementation, people affected by TB, and other state and district administrators.

## National Guidelines and Ethics

The content of this handbook aligns with all the national guidelines on TB control, care and prevention of RNTCP and the National Strategic Plan (2017-2025). The content does not intend to violate any ethical considerations in the provision of services to TB-affected communities.

# Why Industries should invest in TB

## The Problem of TB

TB kills an estimated 4.1 lakh Indians every year and more than 1100 people every day. India also has more than a million 'missing' cases every year that are not notified to the government and most of them remain either undiagnosed or inadequately diagnosed and treated in the private sector. Those affected by TB face social and economic consequences, in addition to the impact on their health. The links between TB, poverty and poor nutrition are well-established, with poverty both an enabler and consequence of TB. People affected by TB lose jobs, go into debt and face considerable stigma from their families, community and employer.

TB control and prevention faces daunting challenges in India. An estimated 30% of the Indian population has Latent TB Infection (LTBI). A significant proportion of the population is undernourished, which weakens immunity and drives TB activation (Global TB Report, 2018). In line with the goal of ending TB by 2025, the Government of India rolled out the National Strategic plan (NSP) for TB Elimination (2017-25). The National Strategic Plan articulates a clear goal, which is to achieve a rapid decline in the TB burden, morbidity and mortality while working towards TB elimination by 2025.

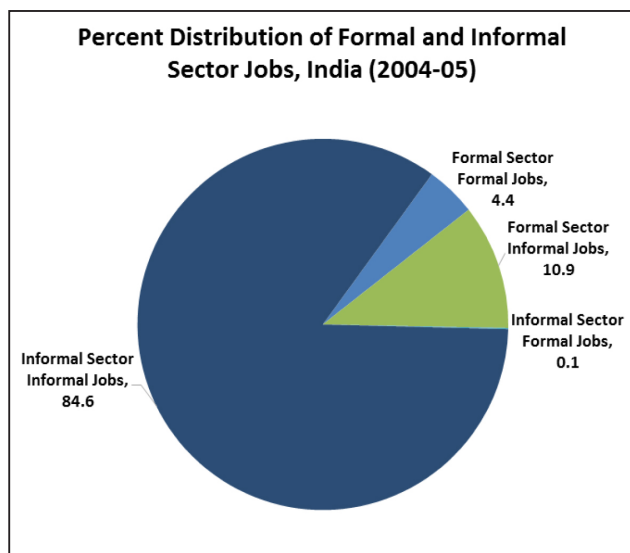
Although India has managed to scale up basic TB services in the public health system, treating more than 10 million people with TB under the Revised National Tuberculosis Control Programme (RNTCP), the current rate of decline is too slow to meet the 2030 Sustainable Development Goals (SDG) and 2035 End TB targets. Innovative and comprehensively-deployed interventions are required to hasten the rate of decline of incidence of TB many-fold, to more than 10-15% annually.

## Industries in India

The public and private sectors in India employ 385 million workers, of which 93 percent are informal workers. The top six sectors employ 79 percent of the workforce, which include agriculture, manufacturing and construction, textiles, tobacco and mining. (Economic Survey of India 2004-05). A large proportion of informal seasonal workers are employed in industries such as construction, manufacturing units, textile industry, leather industry, mines and quarries, agriculture, food processing, etc. In addition, nine out of every ten workers in India are employed in the informal economic sector. It is estimated that there are approximately 100 million domestic migrants in the country working in various economic sectors, including private and



public sector companies (National Statistics Commission 2012). These migrant workers might not have the support of their families or communities. A large number of them are daily wage-earners and are vulnerable to developing TB owing to multiple risk factors such as poor living conditions, occupational predispositions, malnutrition etc.



National Statistics Commission, 2012

### Vulnerability of employees

People associated with or working in some specific industries are especially vulnerable to TB. The NSP has identified groups of priority populations for case finding in urban, rural and tribal areas. A considerable number of these priority groups are occupational groups, including miners, workers employed in stone crushers, cotton mills, tea gardens, construction, glass and weaving industries, unorganised labour, tea garden workers, etc.

These groups of workers are at a higher risk of developing TB due to various reasons such as exposure to toxins/materials harmful to the respiratory system and working/living in cramped spaces without

adequate ventilation. A large proportion of these groups are malnourished. Smoking, substance use and excess consumption of alcohol are also common. Not only do they have inadequate awareness about TB and associated symptoms, they also lack access to quality diagnosis and treatment facilities. These groups of workers may also be afflicted by HIV or other co-morbidities which increase the risk of TB.

### Impact of TB on Industries

TB affects individuals during their most productive years and workers may lose 3 – 4 months of work on an average if they are affected by TB. This results in lost man-hours, workflow disruption, weeks or months of absenteeism, lowered productivity and increased out-of-pocket expenditure for individuals. Industries could also incur indirect costs due to high turnover, consequent recruitment and training. Industries lose when TB is left undiagnosed and untreated among its workers. At the global level, TB leads to a decline in worker productivity to the order of US\$ 12 billion annually.

The success of industries is closely linked to the health and prosperity of the community. The community is a source of workers, services, contractors and consumers and is a key part of the overall business environment. Industries have long-term interests in ensuring the national development of human capital to drive economic development and ensure market growth. TB undermines all of this. The macroeconomic impact of TB should be considered not only in terms of a country's per capita GDP, but also in lost lifespan and lifetime earnings. The economic impact of TB deaths and the benefits of TB control are the greatest in India since the combination

of a growing economy and a high number of TB deaths translates into a significant economic effect (Global Investments in TB Control: Economic Benefits, 2009).

### **Benefits of investing in TB**

Although TB is fully curable, the long treatment period (six months at a minimum) results in people dropping out of treatment. Industries and businesses are ideally positioned to support their employees who are affected by TB and ensure they complete their treatment and receive the social support they require. Employers also have the opportunity to improve awareness and understanding of TB at the workplace and in communities.

Given these opportunities, industries stand to gain from investing in TB. Working towards the improved health of workers will provide the industries with a healthy and productive workforce as well as decreased costs due to absenteeism, ill health and other indirect costs. Furthermore, this would contribute to the health of the community, indirectly improving the economic milieu, which would be conducive to industries. In addition, companies involved in the fight against TB will be seen as leaders. Investing in TB strengthens the reputation of a company, both internally and externally, leading to increased trust among the employees, in the corporate world and among the consumers.

### **Involvement of Industries in Public Health**

In India there have been examples of initiatives by industries in the organised and unorganised sectors, as well as industry associations such as the Confederation of Indian Industry (CII), the Federation of Indian Chambers of Commerce & Industry

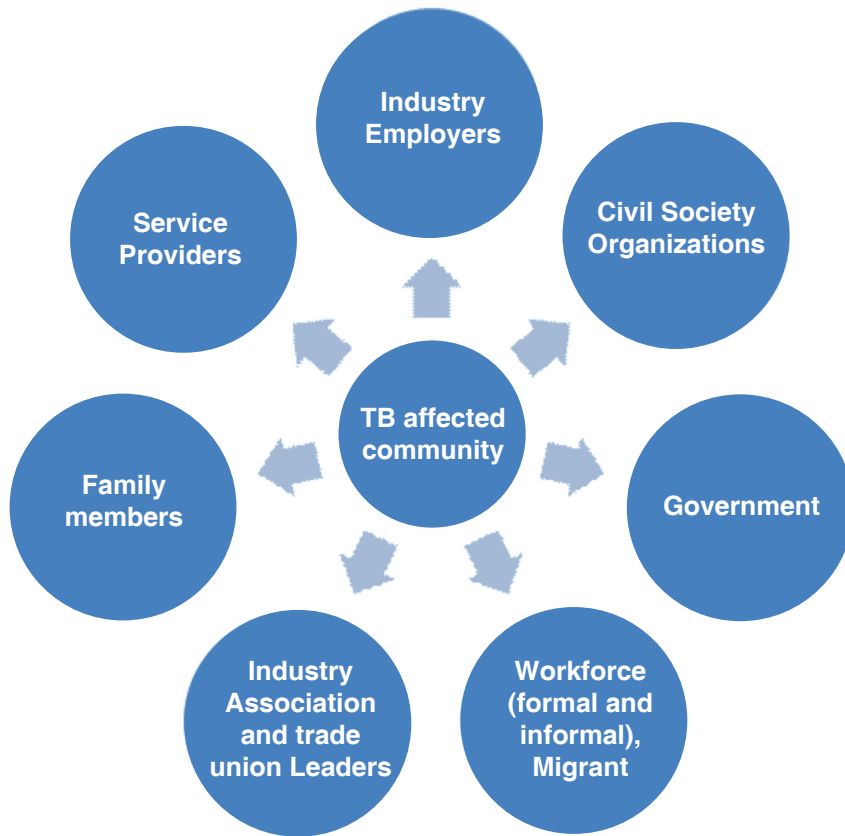
(FICCI), and the Associated Chambers of Commerce and Industry of India (ASSOCHAM), that have complemented the national programme through provision of care and treatment services to work forces. Despite positive examples like these, industry and business participation in India's response to TB remains minimal and requires scaling up. Many studies globally have shown that the return on investment in the prevention of TB far exceeds that of standard capital investments. Studies have indicated that these returns, in terms of cost savings are as much as 3.5 to 7.5 times the cost of intervention.

The National AIDS Control National AIDS Control Organisation (NACO) took a strategic step to design the Employer Led Model (ELM), for reaching out to migrant workforces linked to industries in the organised and unorganised sector. NACO's ELM programme focused on integrating HIV/AIDS activities within existing systems and structures of industries.

At that point, this was the first of its kind programme in public health and called on industries, both formal and informal, to invest their resources in their own workforce.. To date, since its inception in 2014, over 300 industries have signed MoUs with NACO and individual State AIDS Control Societies for HIV-related work. Over 200 have begun implementing HIV prevention and care services for their employees and other affected community members.

Implementation of an Employer Led Model for TB can successfully improve case finding and treatment outcomes. This would complement the efforts of the program and compound the reduction in transmission of TB. Fig 1 outlines the stakeholders involved in implementation of ELM.

**Fig 1 : Key Stakeholders**





# The Employer Led Model for TB Care and Prevention

## Goal

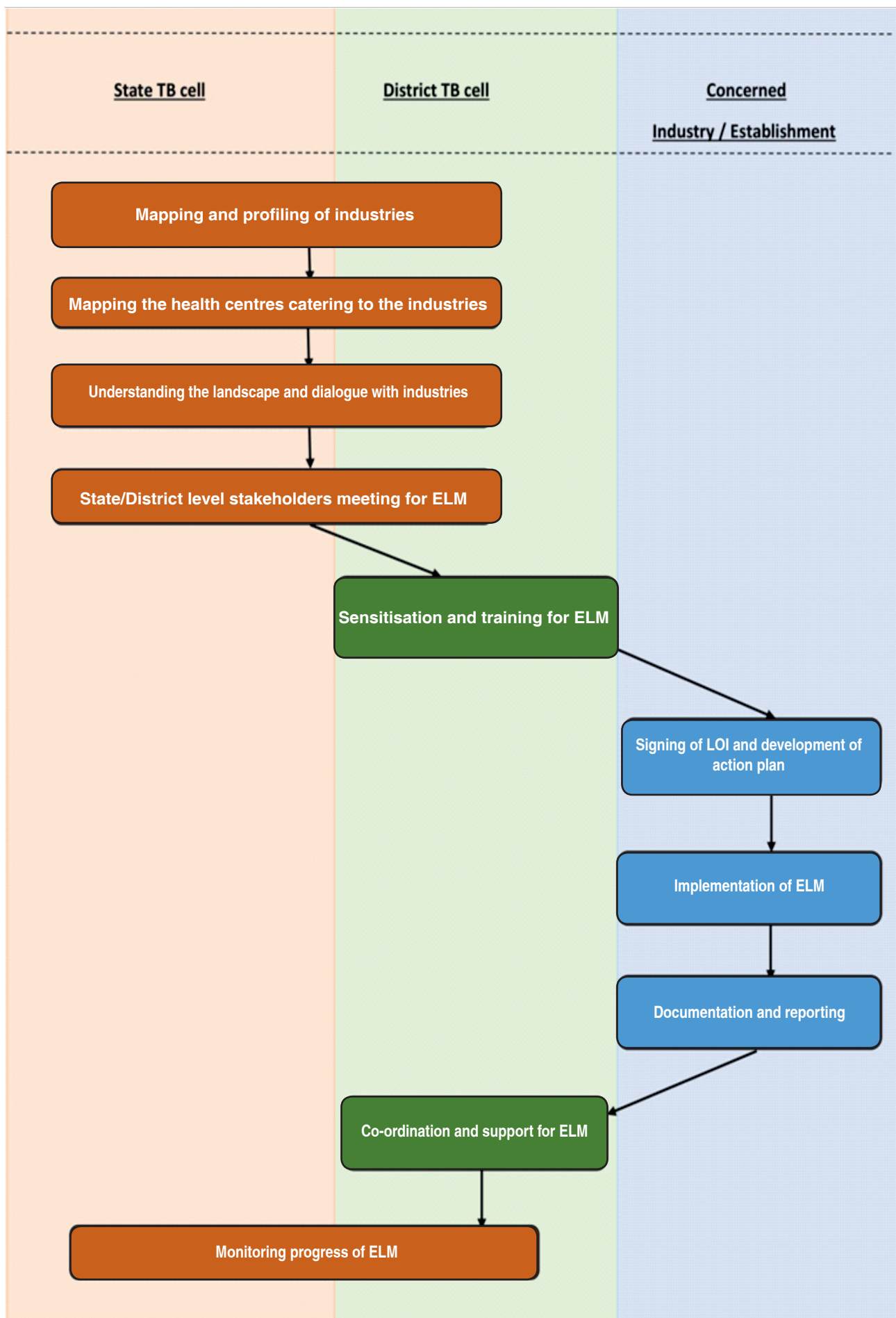
The goal of the Employer Led Model for TB care and prevention is to implement a comprehensive programme on TB care and prevention in industries by integrating awareness, health education and service delivery with existing systems, structures and resources, and by taking cognisance of their business agendas. By investing in the health of their own employees, industries can also contribute to improving India's TB outcomes by enabling access to early detection and diagnosis as well as high-quality care and treatment services.

## Steps in the implementation of ELM

The steps outlined in this section assign responsibilities to the state and the district in a delineated manner. But, the district TB officer could nevertheless carry out the steps assigned for the state, in consultation with the state, in view of the number and concentration of industries in his/her district or considering the proportion of vulnerable/ hard-to-reach populations that could be reached through engaging industries.

## ELM Pilot

REACH is a Chennai-based non-profit organization dedicated to the fight against TB. As part of the Tuberculosis Call to Action Project, supported by the United States Agency for International Development (USAID), REACH is piloting the Employer Led model in six states, in collaboration with the respective State TB Cells. The ELM pilot has focused on tea gardens in Assam, mining companies in Odisha and MSMEs and others in Bihar, Jharkhand, Chhattisgarh and Uttar Pradesh. These Operational Guidelines have been developed based on REACH's learnings from the pilot phase. REACH has followed a process similar to that outlined in this document, with state-level sensitization meetings of key industry representatives held in all states. To date, over 90 Letters of Intent have been signed between industries and their respective District administration/ District TB Cell. Activities and monthly reporting have begun in Assam, Odisha, Jharkhand and Uttar Pradesh.



## **1. Mapping and profiling of the industries**

As a first step, a mapping and profiling exercise of industrial associations and district-wise industries should be undertaken by the State TB Cell, with support from the Department of Industries, Mines, industry association members and owners. Information on decision makers and other key staff as well should be included in the profiling, if possible. The mapping exercise should provide details on -

- The number and types of associations in the state
- The categories of industries and number of industries in each of these categories (For example: mining industries / textile industries etc)
- The categories of the industries by scale
- Public Sector Units in the state
- The number and nature of staff in each of the industries

## **2. Mapping of the health facilities catering to the industries**

The mapping of industries should be complemented by information on the availability of industrial health units, whether they are clinics or hospitals, industry-wise information on the nearest DMC/peripheral health facilities and the distance of these facilities from the industries. The mapping exercise would form the groundwork for the roll out of ELM in the state or district and would define the strategy that an industry could adopt to provide TB care services. This information will help inform key discussion points for the first stakeholders' meeting.

## **3. Understanding the landscape and dialogue with the industries**

The state could correlate information on the number of TB cases reported and number of missing cases across districts, with the industries and number of workers they employ across districts. This will help in the identification of districts to prioritise the roll-out of ELM and also to arrive at an estimate of number of new cases the program could potentially identify by engaging industries. Following this, the State TB cell should engage some of the major industries and industrial associations in the state to initiate dialogue on Employer Led Model for TB, the feasibility of implementing the model across different categories of industries, to assess the present practices followed in referral and provision of treatment support for people with TB and to understand the willingness of the industries to implement a comprehensive employer led program for TB. These conversations could help understand the challenges in addressing TB among employees and lay a foundation for engaging industries further.

## **4. State-level stakeholders meeting for ELM**

As the next step, a stakeholders' meeting should be held at the state level in which the State TB cell would announce its commitment to ELM. The objective of the meeting would be to involve all stakeholders and to draw up a plan for the roll-out of ELM in the state. Inter-sectoral co-ordination is vital to the success of ELM in a state and the state should seek the support of Department of Industries, Mines, Labour and any other relevant departments specific to the state).

Some key participants at the preparatory meeting would include:

- State health secretary / MD-NHM
- State TB Officer
- Representation from Ministry of Industries/Mines
- Department of Labour and Employment
- Civil Society Organisations including WHO
- Industry associations/major industry heads
- District TB Officers of districts with industries/ mining sites
- State TB forum/TB Champions in the state
- Representation from ESI corporation
- The State AIDS Control Society

This preparatory meeting may also help identify the priority districts and industries for ELM. The priority industries should be identified based on geography, district-wise gaps in case finding, occupational risks and the number of migrants or other vulnerable populations employed by the industry. Following the meeting at the state level, the following actions could be undertaken to initiate ELM:

- The STO could direct the District TB Centres to engage the industries in their districts through ELM and pursue signing of the LoI/MoU emphasising quick initiation in the priority districts
- The Director, Industries/Mines could direct industries/mines to seek the support of the District TB Centres to implement ELM in their industries
- The industrial associations could

communicate to the member industries about the state's commitment to ELM and recommend industries to adopt ELM

- The District TB Centres could organise a similar stakeholders meeting at the district level to assign responsibilities and plan for the implementation of ELM at the district level

## **5. Sensitisation and training for ELM**

### *a) Sensitisation of Owners/CEOs/General Managers and association members:*

Based on the number of industries the state seeks to engage, a sensitisation meeting should be organised at the state or district level. A draft agenda is shown in Annexure 1. If a district has a considerable number of industries, which will need more co-ordination with the DTC, the DTO should arrange for a sensitisation meeting at the district level. The District TB Centre in coordination with the district administration, department of industries and mines may invite industries for the sensitisation meeting. The DTC could also reach out to the FICCI or All India Association of Industries (AIAI) or to the CII to improve participation of the industries in the sensitisation meeting. The sensitisation meeting should involve:

- Owners/CEOs
- Health units of the industries
- CSR/HR departments of the industries
- Representatives from associations such as AIAI / FICCI / CII
- District TB forums/ TB Champions
- RNTCP staff catering to these industries



The sensitisation should focus on the burden of TB, how TB affects productivity in industries, why industries should invest in TB, the benefits of implementation of ELM to the industry and the community, the activities to be carried out by the industries and concrete examples of successful implementation of ELM. The sensitisation should explain how stigma at the workplace affects people with TB and what industries could do to address stigma. It should be clearly mentioned that the industries should primarily address the needs of the employees in TB care while they could additionally make efforts to address TB in the community. All efforts should be made by the facilitators to simplify the processes for ELM implementation and respond to all concerns raised by the participants. The DTO or other RNTCP officials should orient the participants on the facilities available in the public sector.

The sensitisation should also initiate dialogue between RNTCP and the industries in order that understand their unique challenges and identify areas of collaboration. E.g.: Establishment of DMCs within the industries, training the lab technician at the health facility to do tests, establishment of a sputum transport system either by the RNTCP or the industry. RNTCP could guide the process of implementation from their learnings in other ELM sites. The DTC should facilitate linking the industry with the closest PHI for joint activities. RNTCP staff of the closest PHI should also be involved in the sensitisation session, so that they are aware of the follow-up activities they will have to undertake.

The sensitisation can also be carried out one-to-one by the state/district PPM coordinator for those industries who did not participate in the sensitisation meeting.

One-to-one follow-up visits may also be required to engage those industries who expressed interest in implementing ELM at the initial sensitisation meeting.

The industries should be encouraged to appoint a focal person who should follow up on the progress under ELM consistently. Wherever an industrial health unit is available, they must be engaged in ELM. Where a health setup is not available, either the HR/CSR or the management could be involved. To ensure sustainability, ELM should be spelled out as a part of the terms and responsibilities of the focal person.

RNTCP should be encouraged to appoint a focal person to assist the roll-out of ELM in the industries, provide technical support, co-ordination and ensure reporting from the ELM units in the district.

The progress of the Employer Led Model could be reviewed regularly in the District TB forum (DTF) meetings. Representatives from the industries could also be invited to share their experiences and learnings in the implementation of ELM in the DTF.

#### *b) Training of health and related staff in the industries:*

The sensitisation of industries could also include a training programme for the health and related staff at the industry. The participants should include

- CEO, Managers
- HR, Admin and Finance staff
- Medical and Health staff
- Labour union head

These trainings in batches of not more than 25 may be held at the district headquarters or in any of the large industries where a training

venue is available. The training would cover topics such as recent developments in TB diagnosis and management, services available in the RNTCP, notification etc,. A detailed draft training schedule is annexed (Annexure 2) which should be locally adapted. The trainings must be made interactive with PPT presentations, Q/A sessions and group work inclusive of a pre-test and post-test questionnaire.

## **6. Signing of Lol & Development of Annual Action Plan**

Once the key staff and decision makers of individual industries are sensitised and motivated to implement the ELM programme, a Letter of Intent (Lol) or Memorandum of Understanding (MoU) should be signed between the industry and State/District TB Centre. In districts where the district administration takes the lead in rolling out ELM, the Lol could be signed between the industry and the district administration/District Health Society. This MoU/Lol would broadly include the scope of work and commitment by both parties to provide all support in the successful implementation of the programme and should mention specific activities agreed upon. It would address compliance to National TB treatment guidelines and honour all ethical considerations for the protection and rights of a person with TB and TB-affected communities as per the National TB programme guidelines. A prototype for the Lol is annexed (Annexure 3).

### **Facility Assessment Checklist:**

Once the Lol/MoU is signed, the industry would assess its capacity to provide diagnostic and treatment services for TB

using the Facility Assessment Checklist (Annexure 4). This assessment could be carried out jointly with the RNTCP. The assessment will aid in developing the annual action plan.

### **Annual Action Plan:**

Consequent to Facility Assessment , the industry and RNTCP together would develop an Annual Action Plan (Annexure 5). The action plan would include proposed joint activities by the industry and RNTCP such as screening for TB in health camps organised by the industry or active case finding among the employees by the RNTCP. RNTCP or the NGO could review the action plan of industries and provide technical inputs to the industry. The District TB Centre should compile the action plans and make a roadmap of joint activities to be conducted in different industries. This roadmap should be shared with the State TB Cell.

## **7. Roll-out of ELM activities**

The implementation of the ELM in individual industries should be initiated through a formal launch event where all staff and formal and informal workers are made aware of TB and the TB services that are available. The activities that should be undertaken as part of ELM for TB are:

### **a) Sensitisation of employees:**

Sensitisation of workers should focus on symptoms of TB, when and where to test for TB, details on testing and treatment, including availability of services. This can be done through sensitisation meetings, regular and repeated screening of audio/visual aids on TB at workers' clubs, canteens and other community centers. Other communication materials on TB in

local language should be distributed for sensitisation of the employees.

**b) Active Case finding (ACF) for TB:**

*I. Screening for TB among employees:*

Screening for TB could be integrated into the annual health check organised by the establishment. Employees identified to have symptoms of TB should be referred to the nearest DMC, within or outside the establishment.

*II. Health camps for the community:*

Health camps could be organised for the community the employees belong to. These camps, preferably organised within the establishment premises, should ensure good participation and distribution of locally relevant communication materials. Presence of medical officers and support staff would facilitate counselling and detection and referral of cases. Based on convenience, sputum collection and transport to nearby government facility should be arranged.

*III. House-to-house activity:*

House-to-house active case finding could be undertaken by the RNTCP with the support of the industry, if the medical officer of the PHI or the DTO predict that house-to-house ACF in the industry or adjoining areas would lead to identification of more people with TB. If the roll-out of ELM in an industry leads to the identification of a considerable number of people with TB, this could indicate the presence of more people with TB in the corresponding community. House-to-house ACF should be done as a joint activity in which the establishment informs its employees of the proposed activity enlisting their participation and RNTCP deploys its resources in the community for house-to-house ACF.

**c) Strengthening capacity of facilities for diagnosis:**

Large industries that have on-site health facilities could be engaged in establishing a Designated Microscopy Centre for sputum testing through various PPM schemes functional under the RNTCP. These facilities also need to be linked to the CBNAAT centres. All medical and laboratory staff in the industry could be trained on sputum collection, transport and screening. A list of all available testing laboratories could be disseminated to all industries.

In the absence of a testing laboratory within the establishment the people being evaluated for TB could be referred to the nearest DMC or sputum transport arranged between the establishment and the DMC

**d) Supporting Treatment of People with TB:**

The industries could link employees with TB to the closest peripheral health institution for receiving Anti-Tuberculosis Therapy (ATT). The ELM team in the industry could train family members of people with TB to support treatment adherence, to report any toxicities/side effects, and to practice cough hygiene and other infection control measures. The ELM team could provide services for de-addiction or could establish linkages for de-addiction to assist treatment adherence and ensure favourable treatment outcomes. The industries could facilitate the receipt of financial support under Nikshay Poshan Yojana. The industries could also provide additional nutritional support to the people with TB through CSR activities or by providing the produce from a kitchen garden to the people with TB. Implementation of a

workplace policy that specifically addresses TB would also help the people with TB to complete treatment.

## **8. Documentation and Reporting**

Documentation and reporting is important for tracking the progress of any programme. All activities, processes and outcomes need to be documented. The focal person for the ELM programme would be required to send a monthly report to the State/District TB Officer and the district administrators. The District TB Centre should compile the monthly progress reports of the industries and report to the state. A sample report format is annexed (Annexure 6). TB is a notifiable disease in India. All public and private health providers should notify TB cases diagnosed and/or treated by them to the nodal officers for TB. The ELM programme also needs to report all cases of TB to the RNTCP. All staff will be trained on the notification process during the initial training programme. An industry implementing ELM could take the support of the RNTCP staff to understand and plan notification of people diagnosed with TB.

## **9. Technical support and guidance**

Industries which have signed MoUs/Lols will need technical support and guidance to implement activities of the ELM. Ongoing support from the RNTCP is essential to identify good practices and those practices that do not yield results. The programme will also need to visit the establishment to understand the progress of the ELM, to identify further areas of support from the TB programme and how the support being provided can be optimised. The visits will help the TB programme representative to understand good practices and steps involved.

For providing technical support to ELM, a team of three to four supervisors may be identified. They would include the State/District TB programme officers, state/district PPM co-ordinators and staff from civil society organisations. These teams would visit the different industries once a month on rotation to provide any on-site support, guidance and trouble-shooting support. The technical support and guidance team may develop a quarterly visit plan to look into the implementation of ELM in more detail in consultation with the industries. A template for documenting observations during a visit is annexed (Annexure 7).

## **10. Institutionalisation of a workplace policy**

All industries implementing ELM should have a workplace policy on TB at workplace. The policy will provide a conducive environment for employees for TB awareness and care for people diagnosed with TB. It will also help to address stigma and discrimination associated with TB and will support the employee to successfully complete TB treatment. The key guiding principles of TB policy framework at workplace should include the following:

- Besides providing awareness on TB, support for screening, treatment and adherence, there should also be a non-discriminatory environment.
- Providing a safe and healthy work environment will keep the workforce healthier and ensure productivity.
- Ensuring confidentiality for people with TB and for people being evaluated for TB. This will also promote early detection and adherence.
- The employer should keep the employees who have been diagnosed with TB on the payroll and provide them with necessary time away from



work. This will help them to adhere to the treatment and prevent further transmission within the establishment.

- People with TB can return to work as per the instructions of the medical officer in a few weeks. For the initial period of treatment, the workforce should be assigned lighter jobs requiring less intensive labour.
- Ensuring engagement of community stakeholders (people treated and on

treatment for TB) should be ensured as part of policy development, intervention designing, implementation and strengthening of TB workplace interventions.

The Government of India has published a policy framework to address TB, TB-related co-morbidities and HIV in the World of Work in India, published in 2019. This document can be used to formulate a workplace policy for TB in the industries.

## 11. Monitoring the progress of ELM

A robust monitoring plan delineating framework, systems and processes is critical to assess the progress of ELM.

For ELM, the following set of indicators are developed which will enable the ELM staff in the industry to monitor the work and report to all stakeholders on the progress. The RNTCP will review the implementation of ELM in its review meetings by encouraging the participation of industries in regular reviews, both at the district and as well as the state level. The programme will also identify and disseminate best practices under ELM through review meetings.

**Table 1: Indicators to assess progress of ELM at the industry level**

Key Indicator	Means of verification
No. of Management/HR/Health staff trained	Monthly reports
Number of refresher sensitisation programmes organised for management staff	Monthly reports
Number of coordination meetings at establishment level	Monthly report and Meeting minutes
Number of community events organised	Event reports and Monthly reports
No of ACF activities organised for the employees	Monthly report
Number of ACF activities organised for the immediate community	Monthly report
Number of people reached through community events	Event reports
Number of people referred for TB services	Monthly reports
Number of people who availed TB services	Monthly reports
Number of people with TB detected	Monthly reports and government reports
Number of people who successfully completed treatment	Monthly reports and government reports
Awareness levels among workers on TB prevention and treatment	KAP survey

The overall functioning of the ELM in the district / state can be assessed through the following indicators. These indicators should be documented on a monthly basis by the focal person within the RNTCP at the district and state level. The focal persons should encourage the industries to send a nil-report even if the industries did not undertake any activities in a particular month

**Table 2: Indicators to assess progress of ELM at the district level**

<b>Key Indicator</b>	<b>Means of verification</b>
Number of industries that signed LoIs/MoUs	Monthly reports
Number of industries that are reporting to the focal person on a monthly basis	Monthly report
Number of industries that diagnosed at least one person with TB through their activities	Monthly report
Number of people with TB diagnosed through ELM	Monthly report
Number of people with TB initiated on treatment	Monthly report
No of review ELM meetings held at the district/state level	Meeting minutes

.....

Industries could play a critical role in the elimination of TB by instituting a workplace policy and implementing a comprehensive ELM. This will improve case finding and treatment outcomes while mitigating social and economic impact of the disease on the employees and improving the overall productivity of the industry at the same time. The Employer Led Model would also improve the economy of the community and the nation at large.

.....

# Roles and Responsibility of stakeholders

Stakeholder	Roles & Responsibility
Establishment Owners/ Managing Directors/ Senior Management	<ul style="list-style-type: none"> <li>• Signing of Lol/MoU</li> <li>• Developing the action plan</li> <li>• Overall implementation of ELM</li> <li>• Drafting and implementation of a workplace policy</li> <li>• Allocation of budget and appointment of a focal person</li> <li>• Documentation and reporting</li> <li>• Coordination meetings within the establishment</li> <li>• Co-ordination with the RNTCP for joint activities and technical support</li> </ul>
District TB Office	<ul style="list-style-type: none"> <li>• Coordination between industry/establishment and local TB services</li> <li>• Guidance on drafting workplace policy and framing an action plan</li> <li>• Provision of resources for sensitisation meetings and community events</li> <li>• Provision of resources for training of industry staff</li> <li>• Review of monthly reports from establishments</li> <li>• Supportive supervision</li> <li>• Facilitating review meetings</li> <li>• Identification and dissemination of best practices</li> <li>• Integrate review of ELM into the regular review system</li> </ul>
District Administration	<ul style="list-style-type: none"> <li>• Supporting the ELM activities in the district</li> <li>• Ensuring quarterly review meetings</li> <li>• Establishment and participation as a Task Force Member</li> <li>• Ensuring support from other departments as and when required (sanitation, civil works etc.)</li> </ul>

State TB Office	<ul style="list-style-type: none"> <li>• Facilitation of roll out of ELM and quarterly review</li> <li>• Provision of technical and TB programmatic updates</li> <li>• Ensuring availability of TB services for referred cases to government facilities</li> <li>• Facilitation of quarterly state level coordination meetings (integrate into existing meetings)</li> <li>• Advocacy efforts with other departments (Women and Child Department, Food Department, Labour Departmentsetc.)</li> <li>• Visits to the ELM industries for supervision</li> <li>• Dissemination of best practices through review meetings</li> <li>• Integration of review of ELM into quarterly district reviews</li> <li>• Encouraging and ensuring district-wise reporting on ELM</li> </ul>
Workers Associations	<ul style="list-style-type: none"> <li>• Ensuring smooth implementation of ELM across the industries</li> <li>• Coordination between workers and labour unions</li> <li>• Trouble-shooting when required</li> <li>• Reviewing implementation of ELM</li> </ul>
Community Leaders	<ul style="list-style-type: none"> <li>• Participation in sensitisation events</li> <li>• Acting as advocates for TB and lead in community mobilisation</li> <li>• Champions against stigma and discrimination</li> </ul>
Development Partner	<ul style="list-style-type: none"> <li>• Technical support for the ELM implementation</li> <li>• Provision of training of focal persons and health staff of the establishment on implementation of ELM</li> <li>• Provision of mentoring support for implementation of ELM</li> <li>• Coordination between RNTCP and the establishment for initiation, implementation and monitoring</li> </ul>
TB-affected community	<ul style="list-style-type: none"> <li>• Promotion of screening for TB among employees and their communities</li> <li>• Provision of psychosocial support to people affected with TB within the industries and in the community</li> <li>• Participation in co-ordination meetings within the industries and in the district reviews to share observations and suggest interventions</li> </ul>



# Annexures

## **Annexure 1: Draft Agenda** **State level Sensitisation on ELM**

<b>Time</b>	<b>Activity</b>	<b>Speaker / Facilitator</b>
	Registration	
10 mins	Welcome Address and Introduction of participants	STO
10 mins	Address by Secretary - Health	Secretary - Health
10 mins	Address by Secretary - Industries	Secretary - Industries
10 mins	Address by Secretary - Mines	Secretary - Mines
15 mins	Objectives of this sensitisation meeting	State TB cell/Supporting NGO
5 mins	TB Champions speak	A TB Champion shares her/his experience
45 mins	Overview of ELM	State TB Officer / Supporting NGO
15 mins	Contents of Lol and introduction to reporting formats	State PPM coordinator
30 mins	TB Update	STO/ WHO Consultant
20 mins	Open discussion	All participants
10 mins	Closing remarks	State TB cell

## Annexure 2: Draft Agenda for Training

Time	Topic	Details
<b>DAY 1</b>		
30 mins	Registration	
90 mins	<ul style="list-style-type: none"> <li>• RNTCP Update and clinical update</li> <li>• Diagnosis and Treatment</li> <li>• State/ District TB programme and available services</li> </ul>	PPT presentation Q/A sessions
30 mins	Break	
90 mins	ELM – activities and implementation	Powerpoint presentations Q/A sessions
60 mins	Break	
120 mins	Visit to local TB service centres	Interactive
<b>DAY 2</b>		
30 mins	Recap and field visit discussions	Recap by participants Open discussions
60 mins	TB case reporting/notification Nikshay 2.0	PPT presentation and practice session on reporting
30 mins	Break	
120 mins	Group work – Developing action plan and implementing ELM in the respective industries	Group work and presentation by individual groups. Industries/establishments to be clubbed as per size and location
60 mins	Break	
	Group Presentations	Interactive
30 mins	Reporting and documentation	PPT presentations

### Annexure 3: Sample Letter of Intent (LOI)

#### Signed on

.....

#### Between

.....

&

Zilla Swastha Samiti/District TB Cell

**Vision:** TB-Free India with zero deaths, disease and poverty due to tuberculosis

**Goal:** To achieve a rapid decline in burden of TB, morbidity and mortality while working towards elimination of TB in India by 2025.

#### Objectives of this Lol

To reach out to all employers of ..... Mines/Industry in ..... to facilitate the implementation of Employer Led Model (ELM) for TB care and prevention for:

- Awareness about Tuberculosis
- Referral for diagnosis and treatment
- Provision of diagnosis and treatment, where possible
- Supporting TB Champions in their capacity building and awareness activities.
- Strengthen treatment adherence through adherence counselling & monitoring
- Development of systems for referral-feedback mechanisms for migrant population.
- Implement workplace policies that are supportive for work and home environment to ensure treatment adherence and complete cure

#### Role of Mines/Industry:

- Support awareness generation activities about TB in your catchment area
- Display IEC materials about TB and cough hygiene practices in your work premises
- Provision of diagnosis and treatment, where possible
- Support in sputum collection and transportation to the nearest DMC
- Ensure 100% notification of TB cases from all the mines' dispensaries
- Strengthen treatment adherence through adherence counselling & monitoring
- Development of systems for referral-feedback mechanisms for migrant populations.

- Implement workplace policies that are supportive for work and home environment to ensure treatment adherence and complete cure. Ensure non-stigmatising and non-discriminatory practices in your workplace to reduce the impact of TB on affected communities
- Contribute through your CSR funds for larger community: through health camps, ACF with TB screening and provide free chest X-ray
- Additional nutritional support for people with TB
- Dissemination of communication materials on local TV and radio channels

### **Role of Zilla Swastha Samiti:**

- Support in smooth execution of above mentioned activities
- Extend technical support and training to staff, through the RNTCP whenever required
- Provide free drugs and treatment those diagnosed with TB
- Follow up on presumptive TB
- Provide design of IEC materials related to TB
- Ensure enrolment of TB cases in Nikshay Portal

## **2. Execution of Lol**

2.1 The Letter of Intent shall become effective upon signatures of both parties

2.2 Parties agree to collaborate and work together for the fulfilment of the objectives set in the Lol

2.3 Both parties would consult each other and review the progress of implementing the objectives of the Lol on yearly basis /till end of the project

2.4 Any alteration or modifications to the LOI can be carried out with the consent of both parties

Signed on behalf of

Zilla Swasthya Samiti/District TB Centre

Signed on behalf of

Industry / Mining Company of

.....



## **Annexure 4: Facility Assessment Checklist**

Date:

### **General Information**

1. Name of establishment.....
2. Address .....  
.....  
.....
3. Name of (focal person) for ELM .....
  - a. Contact Number.....
  - b. Email address.....
4. Name of Medical Officer/.....
  - a. Contact Number .....
  - b. Email address .....

### **Staff details**

1. Number of full time staff (M/F) .....
2. Number of part time/sub staff (M/F) .....
3. Number of permanent workforce/permanent daily rated workers (M/F)  
.....
4. Number of temporary labour workforce/temporary daily rated workers (M/F)  
.....
5. Number of contractual employees .....
6. Any other (specify) .....
7. Total garden/establishment population .....

## Health Infrastructure

1. Type of Facility (Hospital with IPD/OPD, Health Clinic, Community Health Centre, TB Center, Maternity centre etc  
.....
  - a) Is there a designated DOTs centre/provider within premises?  
.....
2. Nature of Other Health staff
  - a. Number of nurses/ANM.....
  - b. Number of other laboratory/paramedical staff .....  
.....
  - c. Number of any other Community Health Workers .....  
.....
  - d. Other community groups .....
3. Training of Health staff
  - a. When was the Medical Officer last trained in RNTCP?  
.....
  - b. When were nurses/other paramedical staff trained in RNTCP?  
.....
  - c. Any other trainings/community awareness programs in last one year  
.....
4. Diagnosis and Treatment of TB
  - a. Is TB diagnosis available in your establishment (Sputum/X-ray/CBNAAT etc)  
.....
  - b. If referred, where? .....
  - c. Is TB treatment available? .....
  - d. If referred, where?.....

## Activities

1. Awareness activities on TB done in the company in past one year.
2. No of persons (male/female) with symptoms of TB who were tested for TB in past one year.
3. No of persons (male/female) who were diagnosed with TB and put on treatment in past one year.
4. No of TB patients (male/female) who successfully completed treatment in past one year
5. Number of orientation/sensitisation meetings on TB organised in the company by state/district TB cell or by the company in past one year.
6. Workplace policy for TB  
Does your organisation have a defined workplace policy for health, including Tuberculosis?

If yes, details

## Annexure 5: Action Plan Template

<b>Name of Establishment :</b>					<b>District :</b>									<b>YEAR :</b>
<b>Activity</b>	Annual Target	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Nodal Person responsible
<b>At Employee/worker level</b>														
Active case finding (support by DTC)														
Sensitisation/ awareness activity (mention type)														
<b>At community level Community</b>														
Active Case Finding (support by DTC)														
Community sensitisation														
Awareness activities at schools														
Any other (please specify) eg. observing world TB day; Discussion in Self Help Groups, youth clubs etc.														
<b>At establishment management level</b>														
Review of activities done at establishment with support from DTC														
IEC materials printing														

## **Annexure 6: Monthly Reporting Format for ELM Under RNTCP**

Name of the establishment (industry/mine/tea garden) \_\_\_\_\_

Type (public private) \_\_\_\_\_

Address \_\_\_\_\_

District \_\_\_\_\_

Reporting for Month and Year \_\_\_\_\_

Date of Reporting \_\_\_\_\_

Does the establishment have its own hospital/clinic (Yes/No) \_\_\_\_\_

### **A. Awareness activities (conducted in this reporting month)**

	Number of meetings	Number of persons reached
Sensitisation meetings for Employees		
Sensitisation meetings for the community (other than employees)		
Sensitisation meetings at schools (in the community area)		
Any others (please specify sensitisation of community through SHG meetings / local youth clubs, street plays etc)		



## B. Referral, Diagnoses and Treatment (for this reporting month)

Number of health camps held where persons with TB symptoms were screened.			
	<b>Male</b>	<b>Female</b>	<b>Total</b>
Number of people screened for TB in health camps/ ACF			
Number of persons with TB symptoms identified through health camps/ ACF (A)			
Number of persons with TB symptoms identified in OPD in establishment hospital or attached hospital (B)			
Total number of persons with TB symptoms identified in the month  (A+ B)			
Number of persons with TB symptoms diagnosed with TB at establishment hospital			
Total number of persons whose samples were sent to RNTCP for diagnosis			
Total number of persons with TB symptoms diagnosed with TB by RNTCP (do not include DR-TB)			
Number of persons diagnosed with Drug Resistant TB			
Total number of persons with TB initiated on treatment in this month (all forms of TB)			
Number of persons with TB who successfully completed treatment this month			
No of persons with TB are receiving treatment within the establishment as on current month			
Number of persons with TB who were lost to follow up in this month			

## Annexure 7: Visit for technical support and guidance

Place of Visit .....

Date of visit .....

Name of the visitor .....

Organisation .....

	Activity	Comments
<b>Staff</b>	Meeting with ELM Focal Point	
	Meeting with Head of Establishment	
	Meeting with Health staff	
	Meeting with association members	
	Meeting with union leaders/employees representative etc.	
	Meeting with family members	
	Meeting with Local TB programme staff	
	Meeting with other local administrators	
	Meeting with community representatives	
<b>TB services</b>	Visit to health facility in Establishment	
	Visit to specific TB service centre	
	Visit to local referral centre	
	Visit to local employee community centre	
	Meeting with TB-affected persons and their family members	
<b>Participation in ELM events</b>	Community awareness programmes	
	Health Camps	
	Any other meetings	

Signature.....

## **Annexure 8: Basics of TB**

### **TB and how it spreads**

TB is an infectious disease spread by a bacterium called *Mycobacterium tuberculosis*. TB spreads through air when people affected by pulmonary TB cough, spit or sneeze. TB can infect anyone of any age. About 40% of the Indian population is infected by TB (latent TB Infection) Most of those who are infected do not develop any symptoms. The lifetime risk of reactivation of latent TB infection in healthy HIV uninfected individuals is 10 % (NSP, 2017-25)

### **Manifestation and symptoms**

TB can affect any part of the body except hair and nails. Most commonly, people develop TB in the lungs (Pulmonary TB). TB affecting any organ can cause weight loss, loss of appetite, fever or night sweats. The symptoms of other forms of TB depend on the organ that is affected. For example, people with spine TB have pain in the back, people with abdominal TB have pain in the abdomen and altered bowel habits etc.

### **Diagnosis and treatment of TB**

Diagnosis of Pulmonary TB is usually done using smear microscopy and tests like CBNAAT. In some cases, the diagnosis will be based on X-ray, scan or other imaging techniques. TB is a curable disease. Extra pulmonary TB is diagnosed by CBNAAT, culture, smear microscopy, histopathological examination, X-ray, MRI, CT scan etc.

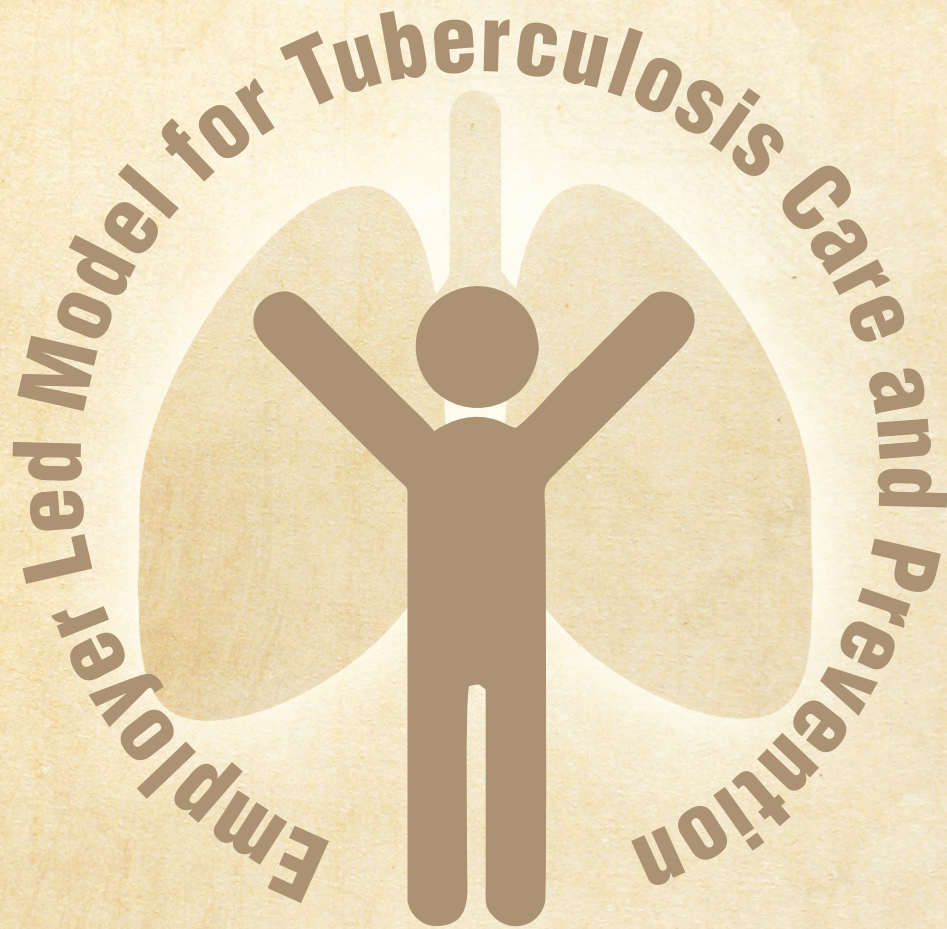
The treatment consists of a combination of anti TB drugs given for a period of at least six months.

### **Drug resistant TB**

Sometimes when TB medicines are not able to kill TB bacteria in a person, the bacteria become resistant to some specific drugs. This gives rise to Drug Resistant TB. This is because of inadequate duration of treatment, inadequate dosing or irregular treatment. Some people may get DR-TB directly from someone else who has Pulmonary DR – TB. In general, DR – TB needs longer and more complicated treatment regimen, and treatment outcomes are poorer than among those with drug-sensitive TB.







सत्यमेव जयते

## Central TB Division

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