

**Summer Training
at
Innovtaors In Health (IIH) India
In collaboration with WHO
31st March 2018 - 1st June 2018**

Indian Health Fund at Dalsingsarai

**By
Devendra Kumar Tiwari**

**Under the guidance of
Dr. Arindham Das**

**MBA Hospital & Health Management
2017-2019**


Institute of Health Management Research
**The IIHMR University, Jaipur
2018**

CERTIFICATE

This is to certify that **Mr. Devendra Kumar Tiwari** has undergone summer training at **Innovators In Health (India), Samastipur** from 30th March 2018 to 1st June 2018.

The candidate himself completed the project assigned to him during summer training. His approach to the project was sincere and proactive. This summer training is in partial fulfillment of the course requirement recommended for the award of MBA in Hospital and Health Management.

I wish him success in all his future endeavors.

Arindam Das

DR Arindam Das

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31 May 2018

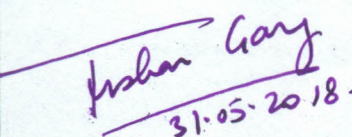
To whom it may concern,

It is to certify that Devendra Tiwari, a first year student in the MBA (Hospital and Health Management) program at the Institute of Health Management Research, Jaipur completed his summer internship with Innovators in Health. He worked in Dalsinghsarai, a block in the Samastipur district of Bihar, for 2 months from 1 April 2017 to 31 May 2018.

His conduct was satisfactory and he made efforts to learn from the experiences of the team. He was enthusiastic to learn about the community and program interventions.

We wish him every success in life.

For Innovators in Health (India),


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ACKNOWLEDGEMENT

This internship was a milestone in my career; it not only helped to broaden my horizons, but also touched those areas of life which lie miles away from more mainstream. At the onset of my report, I would like to acknowledge my sincere thanks to our institute, Institute of Health Management and Research, Jaipur for providing us platform to gain enough knowledge and skills in different aspects of health management.

I express my gratitude and regards to my mentor **DR Arindam Das** for his able guidance and useful suggestions which helped me in completing the project work.

I would like to express my deepest gratitude to **Dr Tushar Garg** and **Pitamber Soren** (Project Manager IHF), Innovators In Health who provided me the possibility to complete this report

Lastly, I wish to thank the people whose insights and experiences have shaped the content of this report.

Devendra Kumar Tiwari

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ABBREVIATIONS AND ACRONYMS

ASHA-Accredited Social Health Activist

AF- ASHA Facilitator

BC-Block Coordinator

CBNAAT-Cartridge Based Nucleic Acid Amplification Test

CHW-Community Health Worker

DOTS-Directly Observed Treatment Short course

DTO-District TB Officer

EP TB-Extra Pulmonary Tuberculosis

FNAC-Fine Needle Aspiration Technology

GDP-Gross Domestic Product

IIH-Innovators In Health

IHF-India Health Fund

K-Thousand

M-Million

MIS-Management Information System

MDR TB-Multi Drug-Resistant Tuberculosis

NGO-Non-Government Organization

PC-Panchayat Coordinator

PHS-Public Health System

PRI-Panchayati Raj Institution

PTB-Pulmonary Tuberculosis

Pvt.-Private

RNTCP-Revised National Tuberculosis Control Programme

SHS-State Health Society

STS-Senior TB Treatment Supervisor

STLS-Senior TB Lab Supervisor

TB-Tuberculosis

TU-Tuberculosis Unit

WHO-World Health Organization

WHP-World Health Partner

1 Overview and Objectives

The Problem

India continues to have the highest number of tuberculosis (TB) cases in the world with an estimated 27.9 lakhs cases annually which accounts for more than a quarter of the global TB burden. Around 4.5 lakh patients died during the year 2016¹. Out of the 27.9 lakh estimated patients, only 1,938,158 TB cases were notified through the public and private sector in India, which means over 8.5 lakh cases couldn't be notified².

The Need

Nearly 0.85 million cases of TB in India are not notified to the Revised National Tuberculosis Control Program³. Most of these cases seek private treatment. In the rural context, a majority are unable to complete treatment, suffer financial catastrophe and frequent relapse. They approach the public health system (PHS) when their condition worsens. They have the greater risk of developing multi-drug resistant TB (MDR-TB) and infecting others due to delays in recommended treatment.

The Project

IIH (India) with the support of India Health Fund (IHF) implemented one of its interventions for improving outcomes of TB patients in private healthcare facilities. The project implemented its intervention in two phases. In the first phase of the intervention, project recruited a team, initiated dialogue with private physicians, pharmacists, and diagnostic centres of the area. Project

¹ Global TB Report 2017

² WHO Report 2017

³ WHO Report 2017

established an operational protocol and initiated a pilot activity. In pilot activity, the project enrolled TB patients taking treatment from private healthcare facilities and tried to understand the dynamics of the relationship between patient and provider. The project conducted baseline survey in the beginning of the project to collect the baseline information for TB patients under private care. In the second phase of the intervention, the project scaled up its intervention by enrolling 40-50 patients per month, refined operational strategy with inputs obtained from the different stakeholders involved with the project.

Objective

The project was rolled out with objective to identify TB patients receiving treatment under the private healthcare provider with the support of private physicians, pharmacists and diagnostic centres to improve their outcomes with the support of community health workers.

The Coverage

The project started its intervention in the Dalsinghsarai block of the Samastipur district of Bihar state, about 90 kilometres from Patna, the state capital and extended its intervention in another neighbouring block, Vidyapatnagar. The project engaged private physicians, pharmacists, diagnostic centres and community health workers (CHWs) in two blocks, Dalsinghsarai and Vidyapatnagar with an estimated population of 3.5 million as per 2011 census. The private physicians and pharmacists notified TB patients belonging to these two blocks as well as other blocks of the district. The project enrolled all these notified patients and monitored them through physical visit in the Dalsinghsarai and Vidyapatnagar block and through telephonic counselling for patients belonging to other blocks.

2 Key Activities

Project Team Recruitment and Capacity Building: The project recruited its team members through written test, field test, and personal interview. In the recruited team there were more representation from women and lower socio-economic group. The senior members of the organization trained the newly recruited team members on different aspects of TB.

Understanding Similar Model of WHP In Patna: Senior members of the IIH (India) leading the project visited similar model run by the World Health Partners (WHP) in the rural areas of Patna (Bihar) to understand and gather learnings for the implementation of the IHF project in the Dalsinghsarai and Vidyapatnagar block.

Protocol Establishment: The project drafted an operational protocol and strategy for engaging private physicians, pharmacists and informal healthcare providers to enrol TB patients under their care. The protocol outlined the details on how to involve private physicians, pharmacists and informal healthcare provider for the notification of TB patients and monitor these patients to improve their outcomes.

Project Piloting: The project was piloted with one private physician and four chemists based in the Dalsinghsarai block. During the pilot period two training workshops were organized for the 16 CHWs working for tuberculosis to enable them to monitor and supervise TB patients under private care. The project was able to enrol 68 TB patients under private care during the pilot phase.

Baseline Survey: The project conducted a population-based retrospective baseline survey at the end of pilot phase, in the eight sample panchayats selected from Dalsinghsarai block to identify the TB patients under the private care and understand the factors behind their association with private sectors.

CHW Engagement for Patient Monitoring: The project sensitized 181 CHWs of the Dalsinghsarai block and worked for their capacity building to make them capable of monitoring and supervising TB patients under private care in their wards. They played an important role in linking TB patients under private care with public health system through counselling. In the last reporting year, 148 CHWs were involved in patient monitoring. The project conducted 24 workshops for capacity building of CHWs.

MIS Development: The project developed an online management information system (MIS) to record the details of every TB patients under private care. It is maintained online on the google excel sheet. The project enriched MIS by including vital information of TB patients, viz. information on contact details, diagnosis, treatment, treatment outcome, Nikshay notification number and summary of counselling and physical visit carried out by the project member. The MIS helped in tracking drug adherence and follow up counselling of TB patients.

E-Nikshay Notification of TB Patients: The project notified 95% of total 739 enrolled TB patients to the RNTCP through Nikshay web portal. Others couldn't be notified because of unavailability of proper information.

ABOUT SUMMER TRAINING AT DALSINGHSARAI, BIHAR

Learning is a part of life we get so many opportunities to learn from day to day activities, here training plays a vital role. Training is a learning process of developing skills, knowledge, improving ones capabilities, productivity and performance.

As a student got this wonderful opportunity to do summer training in Innovators In Health (India) situated at Dalsingsarai Block of Samastipur. Doing training at this place gave me a wonderful chance to experience real life issues in core health. Different tasks were assigned in day to day activities at this organization that will definitely help me in facing different challenges during my career in health sector. Experiencing the pain of our community due to health related issues, I learned the importance of health management, and I hope to eliminate the loopholes of our health system. I am sure this effective learning at summer training will definitely help me in future.



TASK ASSIGNED AND LEARNINGS

WEEK	MAJOR ACTIVITIES	LEARNINGS
1 st WEEK	• Learning about the organization • Attended weekly reporting of field staff. • Visit to SDH hospital • Attended ASHA meeting • Suggested topic for Mahila Mandal, a community awareness program	• Understanding organization i.e. how it works, what are the roles of different stakeholders within and outside the organization. • Understanding organogram • Understanding various projects run by the organization.

2 nd WEEK	• Field visits for TBR patients' tracking. • Learning about RNTCP • Participated in Mahila Mandal meetings. • Participated in ANC visits.	• Learned about CHWs role in TB control. • Understanding of the 99 DOTS technology as well as drug regimen of TB patients • Learned about the importance of community engagement in health sector with the help of Mahila Mandal meetings.
3 rd WEEK	• Field visits for tracking TBR patients. • HBNC visits. • Mahila Mandal meetings • Interview with ASHAs, ASHA facilitators.	• Interviewing patients' on drug adherence and ASHA visits. • Learned about Home Based New born Care and understanding danger signs in new borns. • Learned about ASHA perceptions related to her experiences in health sector.
5 th WEEK	• Sorting of patients' files who received private treatment and documenting them • Mahila Mandal meetings • Participated in ASHA facilitator meetings • Counselling of MNH beneficiaries. • Visit to Ujyarpur block CHC • Field visit • Participated in screening process of TB patients • Participated in ASHA and PC meeting	• Learning documentation and record keeping process of the TB patients who are beneficiaries of ITH TB programmes • Learning about the danger signs in pregnant women and diet during pregnancy. • Learned the functioning of Community Health Centre • Understanding APF (Active Patients Finding) and learning the process of screening of suspected TB patients. • Understanding ATT in paediatric patients and drug regimen for the same. • Understanding of the patient reporting and documentation by CHWs and PCs as well as reporting the referrals made by ASHAs, RMPs, PRIs •

6 th WEEK	• Getting stories from patients through a short interview • Visiting the patients who are irregular in taking medicines • Field visit for high risk case analysis of MNH patients.	• Getting to know the difficulties the patients faced during the disease and the changes in their lives after the treatment. • Understanding various issues due to which patients discontinue their medication or take irregularly.
7 th WEEK	• Visits to PHC • Schedule based interview with cured and completed TB patients to received treatment under private healthcare providers. • Informal group discussion with community • Interviewed ANM	• Understanding the burden of out of pocket expenditure for patients who received treatment from private healthcare providers. • Understanding of various issues which may impart to the poor health of the people. • Learning about the various roles and responsibilities of ANMs.
8 th WEEK	• Schedule based interview with cured and completed TB patients • Visited SDH Dalsinghsarai, interviewed GNM • Mahila Mandal meeting	• Understanding the possible reasons which lead TB patients to opt for treatment at private healthcare provider. • Understanding the functioning of a Sub Divisional Hospital • Understanding the roles and responsibilities of GNMs

FUNCTIONS OF THE ORGANISATION

- Staff growth-includes staff capacity building.
- ASHA facilitation
- Active case finding in the community
- Free diagnosis
- Treatment
- Tracking adherence through 99 DOTS technology

- Access to TB treatment
- Community support for nutrition to poor and malnourished patients
- Building capacity of other NGOs
- Engaging community
- Creating awareness
- Controlling the spread of TB in children



Mahila Mandal: A community awareness programme on Maternal health

99 DOTS

INTRODUCTION

Tuberculosis (TB) is an infectious, airborne disease caused by *Mycobacterium tuberculosis* which typically attacks the lungs and is often fatal if untreated. The disease is cured by following a regimen of 4 antibiotics for 6-8 months. The cure was developed six decades ago but delivery has continued to be a challenge. About 2 billion people have been exposed to the diseases and carry a latent form of it. It is estimated that each untreated case of TB infects, on average 10-15 additional people.

India being the country with highest global burden of TB, it has always been a challenge for public health institutions to ensure proper drug adherence amongst DOTS beneficiaries. Since there is now easy availability of Mobile phones, using communication technology can be a blessing for ensuring compliance and thus TB cure in TB/HIV co-infected patients. 99 DOTS is an approach for monitoring and improving TB medication adherence among TB/HIV co-infected.

99DOTS introduces anti TB blister pack wrapped in a custom envelope, which includes hidden phone numbers that are visible only when doses are dispensed. After taking daily medication, patients make a toll-free call to the popped up phone number which is hidden till then, yielding high confidence that the dose was “in-hand” and has been taken. The sequence of hidden numbers cannot be predicted by the patients, but is known only by the system for each blister pack prescribed. Hence one can be fairly confident that patients who

respond correctly have indeed taken their medication.



Follow-up visits to TB patients by IIH workers

Indian Health Fund at Dalsingsarai

Innovators In Health (India), with the support of the India Health Fund (IHF), implemented an intervention to improve the outcomes of TB patients in private care. The project was rolled out with the objective of identifying TB patients under private care with the support of private physicians and pharmacists and improving the outcomes of these patients with the support of community health workers (CHWs).

The intervention project had two phases.

In the beginning phase, the project recruited a team and initiated dialogue with private physicians, pharmacists, and diagnostic centres. The project established an operational protocol and a pilot activity. During the pilot, the project enrolled TB patients taking treatment from private healthcare facilities and sought to understand the dynamics of the relationship between patient and provider. The project conducted a survey to collect baseline information on TB patients under private care.

In the second phase, the project scaled up its intervention by enrolling 40–50 patients per month. It also refined its operational strategy with inputs from stakeholders involved with the project.

The project began the intervention in Dalsinghsarai Block of Samastipur District in Bihar, about 3 hours by road from Patna, the state capital, and extended its intervention in to a neighbouring block, Vidyapatinagar. The project engaged private physicians, pharmacists, diagnostic centres, and CHWs in these two blocks, having combined population of 3,61,834 (2011 census). Private

physicians and pharmacists notified TB patients living in these two blocks, as well as patients coming to them from neighbouring blocks of the district. The project enrolled all these notified patients and monitored them through personal visits in Dalsinghsarai and Vidyapatinagar blocks; telephone counselling was used to monitor patients in other blocks.

Literature review on Financial burden of treatment for TB patients

The mean total costs ranged from \$55 to \$8198, with an unweighted average of \$847. On average, 20% (range 0–62%) of the total cost was due to direct medical costs, 20% (0–84%) to direct non-medical costs, and 60% (16–94%) to income loss. Half of the total cost was incurred before TB treatment. On average, the total cost was equivalent to 58% (range 5–306%) of reported annual individual and 39% (4–148%) of reported household income. Cost as percentage of income was particularly high among poor people and those with multidrug-resistant TB. Commonly reported coping mechanisms included taking a loan and selling household items.

The total cost of TB for patients can be catastrophic. Income loss often constitutes the largest financial risk for patients. Apart from ensuring that healthcare services are fairly financed and delivered in a way that minimises direct and indirect costs, there is a need to ensure that TB patients and affected families receive appropriate income replacement and other social protection interventions.

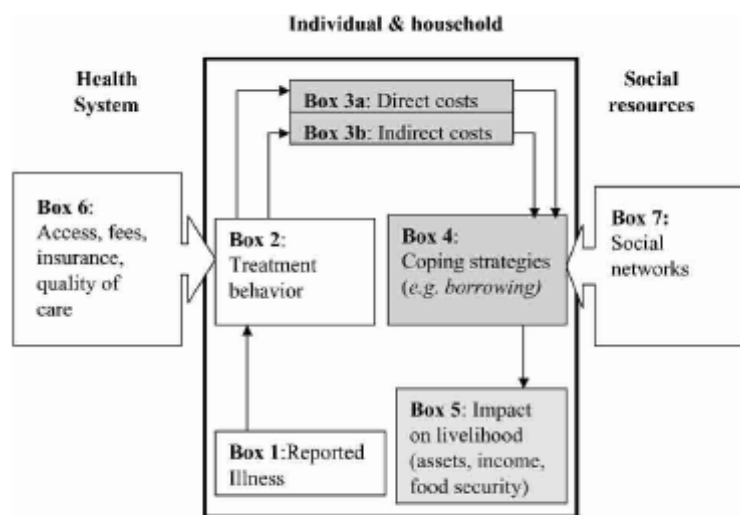


FIGURE 1. Conceptual framework for analyzing the economic burden of illness for households.

Tuberculosis (TB) poses serious public health challenge in the world, mostly the developing countries owing to multiple factors. TB was ranked 7th according to the WHO's global disease

burden report, 1990 and the predictions up to 2020 also confirm the same in terms of morbidity.^[1] The burden of TB in India is devastating as it contributes 300,000 deaths every year with an annual addition of 2.2 million new cases. According to a well-calculated financial burden report, the burden of TB leads to a loss of \$23bn (£14.9bn; €20.3bn) per annum.^[2] The vertical program known as Revised National TB Control Programme (RNTCP) is the Government of India's flagship programme for the control of TB with a target of 85% cure rate and 70% case detection rate. After several years of implementation, India has achieved this global target of cure rate and case detection rate since 2007. Furthermore, the coverage rate of Directly Observed Treatment Short course in India is 100%, however, the problem of TB still continues in Indian communities owing to multiple factors.^[3] The basic issue of RNTCP implementation lies with its approach of passive case finding which is strongly linked with the health-seeking behavior of patients seeking care at public health facilities.^[4] The health-seeking behavior of a TB or chest symptomatic very often creates an option of choosing a preferred health facility, or a doctor for that matter, for the diagnosis and treatment of TB which solely depends on the choice of the beneficiary. Private health-care providers are mostly the first point of contact for these chest symptomatics or cough symptomatics in most of the Indian communities. Different studies in India reveal that 50%–80% of TB patients preferred to visit private health-care institutions or general practitioners. It has further been reported that the treatment offered at private health facilities has mostly been substandard.^{[5],[6],[7]} On the contrary, people in India are not aware of an existing free of cost public health program that takes care of TB patients. One of the studies at the P. D. Hinduja National Hospital and Medical Research Centre, Mumbai, India, reported that 85% ($n = 200$) of the people not exposed to TB are unaware of existing public health facilities for TB care.^[8] Very often this sort of behavior and ignorance leads to delayed health seeking at public health facilities in Indian communities. Studies in different parts of India reveal that the mean patient delay in seeking care ranges from 25 to 120 days ^[9] with patients meeting several of health-care providers before initiating the TB treatment.^{[10],[11]} The health-seeking behavior of TB patients and various delays, patient delay and health system delay, may lead to grievous repercussions such as multidrug-resistant TB, extremely drug-resistant TB, and increased rate of out of pocket expenditure.

OBJECTIVE

To learn about the concept of 99 dots

To develop an understanding of burden of out of pocket expenditure on TB patients who opt for private treatment

To understand the main reasons behind TB patients choosing private healthcare providers over public health facilities

To find out the recurrence of any symptoms, post anti TB treatment in

METHODOLOGY

- Ten panchayats from two blocks of Samastipur district of Bihar namely Dalsingh Sarai and Vidyapati Nagar were selected for study.
- Persons who have been completely cured for TB within one year of time were chosen for study.
- 50 patients from all ten panchayats were selected randomly from the patients' database available at IIH.

Inclusion:

Patients who received treatment from any private healthcare provider

Exclusion:

Patients who received treatment under 99DOTS Therapy

TOOL

- A well structured schedule with both open ended and closed ended questions was prepared.
- Data were collected through personal interview of cured patients.

- Data entry was done on excel sheet.
- Data analysis was done on Excel

FINDINGS

[1]

- According to the study, average cost incurred in TB treatment at Private healthcare facility ranges from 5000 to 70000

Expenditure on private treatment	
No. of people	Amount spent on treatment
11	5000 - 10000
15	11000 - 15000
19	16000 - 20000
5	Above 20000

[2]

- 44% of the respondents' annual income lies between 50,000 to 70,000

Total number of respondents (n) = 50

Number of respondents whose incomes lie between 30,000 – 50,000 = 12

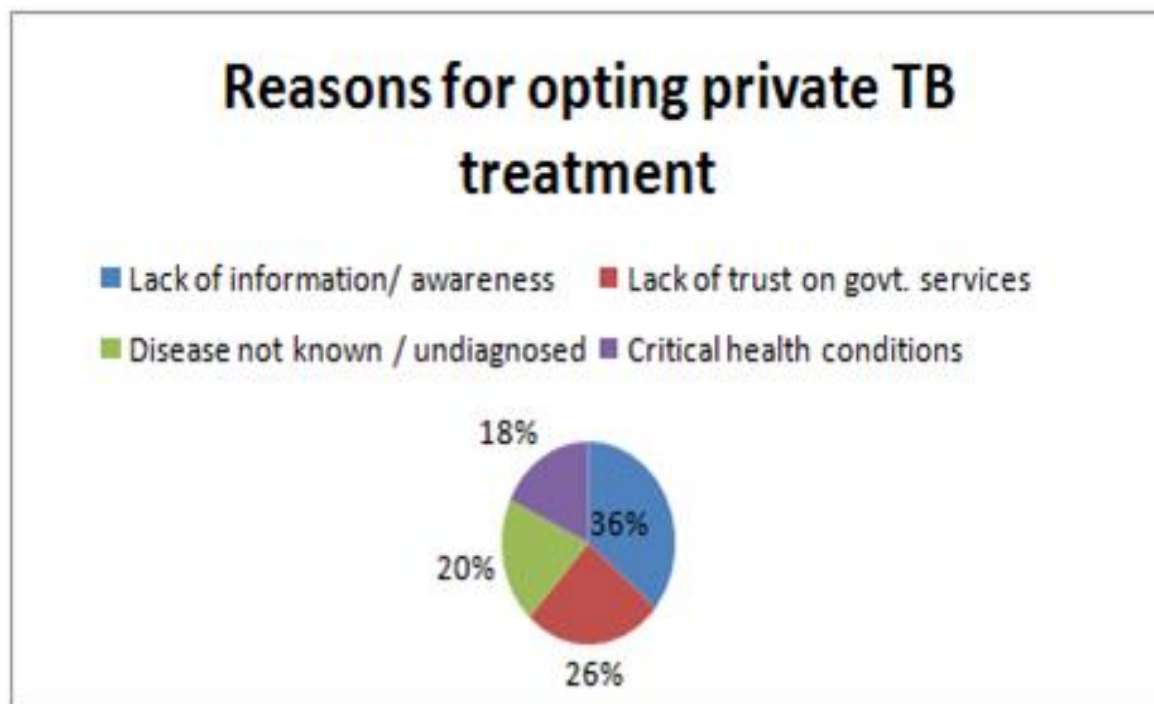
Number of respondents whose incomes lie between 50,000 – 70,000 = 22

Number of respondents whose incomes lie between 70,000 – 90,000 = 09

Number of patients whose incomes are 90,000 and above = 07

Annual Income of Respondent	
% of People	Income
44%	50000 - 70000
24%	30000 -50000
18%	70000 -90000
14%	Above 90000

[3]



The findings have shown that there have been four major underlined causes which leads patients to go for ATT at private healthcare providers.

Number of respondents who chose private provider over PHS due to lack of information/awareness = 18

Number of respondents who chose private providers over PHS due to lack of trust on governments services = 13

Number of respondents who chose private providers over PHS due to undiagnosed or unknown disease = 10

Number of respondents who chose private providers over PHS due to critical health conditions = 09

[4]

Total number of respondents = 50

Number of respondents who had any type of symptoms post anti TB treatment = 13

Conclusions

Findings of the study clearly indicate that only 64% of the respondents had knowledge of free DOTS Therapy at PHS for TB.

A large proportion of sample population had trust issues regarding Public Health facilities, the key concerns being availability of Health professionals, availability of medicines, proper facilities to tackle critical health conditions.

A larger proportion of the respondents in the region were economically too backward to afford proper TB treatment at private healthcare centre as well as receive proper nutrition which is very essential part of TB treatment.

Suggestions

There need to be more focus on spreading awareness in villages regarding various Public Health

facilities by community level workers like ASHAs and AWWs.

Efforts must be made to ensure availability of required essential infrastructure and services at Public Health facilities.

There should be provisions for supporting patients with supplementary nutrition in case they are unable to do so.

Post treatment monitoring should be done for the patients who were at high risk, after the completion of treatment to check the recurrence of disease.

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