

NEW DELHI TUBERCULOSIS CENTRE

ANNUAL REPORT
2016 - 2017

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Message from Chairman

As one of the oldest organization, New Delhi Tuberculosis Centre since its inception in 1940 has a history of magnificent journey and growth to achieve its present stature. Today it holds a place of pride amongst the National level institutes serving the patients with TB and other respiratory diseases. It is a matter of immense pleasure and satisfaction for me to be associated with this Institution..



In recognition of its expertise in the areas of TB research, training and programme implementation, it has been designated as State TB Training and Demonstration (STDC) center and Intermediate Reference Laboratory (IRL) under RNTCP for the state of Delhi to monitor RNTCP activities and Designated Microscopic Centers of Delhi state. It is the first STDC to start performing the base line DST of all MDR cases for second line anti TB drugs and planning to do universal DST for all smear positive cases, diagnosed in the state.

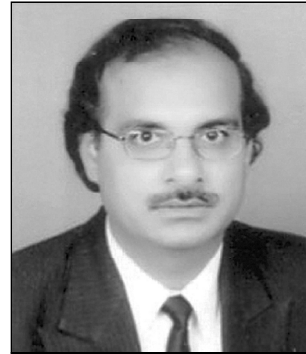
The institute is providing necessary support to State TB Cell in enhancing the notification of TB cases in Delhi by public as well as private institutes. It is actively participating as a state partner in Active Case Finding (ACF), a strategic national activity under RNTCP.

I extend my heartiest congratulations and wish that the institute expand, diversify and flourish more and more to impart quality health services to TB patients. I am grateful to Ministry of Health & Family Welfare, GOI, Central TB Division and Government of Delhi for extending their support to the Institute. I express my heartiest gratitude and appreciation to the learned faculty, technical staff and all employees for their constant cooperation and efforts towards building this center as a national Institute.

Dr. L.S. Chauhan
Chairman

From Director's Desk

Today, it is a matter of pride for me to represent the annual report of glorious institute 'New Delhi Tuberculosis Centre' who is giving full support in journey to end the deadly disease. The Centre which was established in 1940 as a 'Model TB Clinic' has completed 76 years of its journey and now grown up as a full fledged institute indulged not only in clinical and diagnostic fields, it has also established its role in RNTCP monitoring and operational research in field of TB and respiratory diseases. The report presents the summary of different activities of the centre during the year.



Dr. K.K. Chopra

When NTP started in India, NDTB Centre was one of the ten chest clinics in Delhi. After introduction of RNTCP, in 1997 it became one of the chest clinic of Delhi rendering DOTS services to half a million of population of walled city of Delhi. Since then we have progressed to become State TB Training & Demonstration Centre (STDC) as well as Intermediate Reference Laboratory (IRL) for Delhi State providing monitoring activities for DOTS and diagnostic services under RNTCP for whole of Delhi State.

Patient care remains one of the basic activities of the Centre. During the year, more than 10000 patients attended the OPD department of the Centre for opinion and treatment. The doctors and staff of the Clinical Section provide their service to the patients and after diagnosing their disease, the patients are referred to their respective areas for treatment. DOT Centre in its complex also put 455 patients on treatment.

The laboratory of the Centre is equipped with all the newer diagnostic techniques and is functioning as Intermediate Reference Laboratory where we receive samples from 17 chest clinics of Delhi and providing

its services for Line Probe Assay, solid and liquid culture and DST.

Epidemiology section of New Delhi Tuberculosis centre is involved in various activities. Every year, the radiological examination of employees of various organizations is done by the section. The faculty of the section is also involved in running operational research projects.

The Centre is also engaged in teaching and training activities. The interns and post graduate medical students of MAMC and V.P. Chest Instituted are posted for teaching and training here. The Centre runs a TB Supervisor Course in addition to the training of nursing students from Ahilaya Bai College of Nursing, RML Hospital and Lady Reading Health School.

This year, ECHO-MDR distance learning project is started in Delhi State. The objective of the project is to build the capacity of Health Service provider. Under this project, STDC, STO office, DRTB centers and DTOs come together in virtual platform to discuss about various issues, present cases and learn through didactic presentation by experts. The NDTB Centre has participated in the project actively.

The staff of the centre is actively involved in conducting research activities in clinical, bacteriological and programme related aspects. During the year seven papers were published in journals

The details of the Centre's activities are presented in the report. I am grateful to the Ministry of Health & Family Welfare and Central TB Division for the financial support. I am grateful to all the members of Managing Committee, State TB Control Officer Delhi State and TB Association of India for valuable help and cooperation for strengthening the infrastructure at New Delhi Tuberculosis Centre.

Dr.K.K.Chopra
Director

ABOUT THE INSTITUTE

Established in 1940 as a Model TB Clinic, NDTB Centre has now grown into a fully National level institute for TB and Chest Diseases. The objectives of imparting health care, training and education are being met in an integrated form here. In 1951, it was upgraded to be the first TB demonstration cum Training Centre with the assistance of WHO, UNICEF & Government of India. In 1966 it became a referral Centre and was designated as State TB Training & Demonstration Centre for the State of Delhi in the year 2005. Today it has become a reality, as the Centre has gained due recognition nationwide for excellence in the treatment of TB and respiratory disease. The Government has supported both technically and financially to make it an apex institute in the country.

With the objective of expansion of quality DOTS services to the entire country, the Centre continues to render the services in the field of TB and Respiratory diseases. The Centre aims at widening sources both in terms of activities and access, and to sustain the achievements for decades to come in order to achieve ultimate objectives of TB control in the country. It is also actively participating in the National level programme for finding TB cases under “Active TB Case Finding” with Delhi TB State cell.

The Centre actively works in liaison with State TB cell on getting positive results for all components of a new Stop TB Strategy. As an IRL, the institute assists RNTCP in maintaining the global standards through quality assurance for the laboratory in the state. The Institute has been a guiding force in formulating policy in relation to involvement of Private sector and Medical Colleges in the programme for the management of pediatric TB and operational research along with other various TB related research topics for more than 75 years.

MANAGING COMMITTEE

1. **Dr. L.S. Chauhan** **Chairman**
Vice- Chairman
Tuberculosis Association of India
2. **Dr. V.K. Arora** **Member**
Financial Adviser
New Delhi TB Centre/
Vice Chairman (Research and Publication)
Tuberculosis Association of India
3. **The Additional Secretary & FA** **Member**
Ministry of Health & Family welfare
4. **The Joint Secretary (Health)** **Member**
Ministry of Health & Family Welfare
5. **The Deputy Director General (TB)** **Member**
Central TB Division
6. **Director** **Member**
National Institute of TB & Respiratory
Diseases
7. **The Director** **Member**
VP Chest Institute
8. **The Director of Health Services** **Member**
Delhi Administration
9. **Director Medical Services** **Member**
New Delhi Municipal Committee
10. **Honorary General Secretary** **Member**
Delhi Tuberculosis Association
11. **The Executive Director** **Member**
Indian Railways
12. **Secretary General** **Member**
Tuberculosis Association of India
13. **Director** **Member Secretary**
New Delhi TB Centre

SCIENTIFIC ADVISORY COMMITTEE

| | |
|---|-------------------------|
| Dr. L.S.Chauhan Chairman New Delhi Tuberculosis Centre | Chairman |
| Dr.Ashwani Khanna State TB Officer Delhi State | Member |
| Director V P Chest Institute | Member |
| Dr. Varinder Singh Professor – Pediatric, Kalawati Hospital Lady Harding Medical College | Member |
| Shri G.P. Mathur Ex-Statistician New Delhi Tuberculosis Centre | Member |
| Dr. M. Hanif Bacteriologist New Delhi Tuberculosis Centre | Member |
| Dr. Nishi Aggarwal Statistician New Delhi Tuberculosis Centre | Member |
| Dr. K.K.Chopra Director New Delhi Tuberculosis Centre | Member Secretary |

ETHICAL COMMITTEE

| | |
|--|-------------------------|
| Director VP Chest Institute | Chairman |
| Dr. Sanjay Rajpal Chest Physician New Delhi Tuberculosis Centre | Member |
| Dr. M. Hanif ,K.M. Bacteriologist New Delhi Tuberculosis Centre | Member |
| Dr. Nishi Aggarwal Statistician New Delhi Tuberculosis Centre | Member |
| Dr. Chinkholal Thangsing NGO – HIV Expert | Member |
| Shri T.S. Ahluwalia Secretary General Tuberculosis Association of India | Member |
| Prof. Mala Sinha Faculty of Medical Science Delhi University | Member |
| Mr. Swetaketu Mishra Advocate | Member |
| Dr. M. M.Singh Professor Maulana Azad Medical College | Member |
| Shri G.P. Mathur Ex-Statistician New Delhi Tuberculosis Centre | Member |
| Sh. Madan Mohan Delhi TB Association | Member |
| Sh. Sanjeev Gupta Community Person | Member |
| Dr. Shanker Matta Epidemiologist New Delhi Tuberculosis Centre | Member Secretary |

SENIOR STAFF MEMBERS

Dr. K. K. Chopra
M.B.B.S., M.D., D.T.C.E.

Director

Dr. Sanjay Rajpal
M.B.B.S., D.T.C.D., F.N.C.C.P.

Chest Physician

Dr. Mahmud Hanif
Ph.D.

Bacteriologist

Dr. Nishi Aggarwal
Ph.D.

Statistician

Dr. Shanker Matta
M.B.B.S., M.D.

Epidemiologist

Dr. Shivani Pawar
M.B.B.S., D.T.C.D.

Medical Officer

Mr. D.C. Uppadhyay
B.Com.

Administrative Officer

RESEARCH AND PUBLICATIONS

Research papers published.

During the year 2016-17, the following research papers have been published or submitted by faculty of the Centre:

- 1. Band pattern Analysis of mutations in Rifampicin resistance strain of Mycobacterium tuberculosis by Line Probe Assay in patients from Delhi, India.** Himanshu Vashistha, M. Hanif, K.K. Chopra, A Khanna, D Shrivastava Indian Journal of Tuberculosis, Vol.63, Issue 3;2017.
- 2. Rapid detection of multi drug resistance among multi drug resistant tuberculosis suspects using line probe assay.** Manoj Kumar Dubey, U Bhardwaj, M. Hanif, K K Chopra, A Khanna, S Saini, K K Dwivedi, H Vashishtha, Z Sidiq, V Ahmad, S Sharma Asian Journal of Pharmaceutical and Clinical Research, Vol 10, Issue 1, 2017, 131-133
- 3. Baseline Resistance to Ofloxacin and Kanamycin Among Multi-Drug Resistant Strains of M. tuberculosis Isolated at an Intermediate Reference Laboratory in Delhi.** Vasim Ahmad, D Srivastava, M Hanif, Z Sidiq, K K Dwivedi, H Vashishtha, S Sharma, S Saini, V K Bediraddy, K K Chopra, A Khanna Indian Journal of Applied Research, Volume: 6, Issue: 8, August 2016 (586-588)
- 4. Molecular Line Probe Assay for the Detection of Multi Drug Resistant Tuberculosis and Comparison of Results with Conventional Solid Culture and Drug Susceptibility Testing.**

Manoj Kumar Dubey, U Bhardwaj, M. Hanif, K K Chopra, A Khanna, K K Dwivedi, H Vashishtha, S Saini, Z Sidiq, V Ahmad, S Sharma Indian Journal of Applied Research, Volume: 6, Issue: 8, August 2016 (643-645)

5. **Rapid detection of extensively drug-resistant (XDR-TB) strains from multidrug-resistant tuberculosis (MDR-TB) cases isolated from smear-negative pulmonary samples in an Intermediate Reference Laboratory in India.** Himanshu Vashistha, M. Hanif, S Saini, A Khanna , S Sharma, Z Sidiq, V Ahmad, M K Dubey, K K Chopra, D Shrivastava Indian Journal of Tuberculosis, Vol. 6 3 (2016) 1 46 – 150
6. **Meso level multi – disciplinary approach for reduction of initial defaulters in Revised National Tuberculosis Programme, Delhi, India.** Nandini Sharma, Meera Dhuria, Nishi Aggarwal and K.K. Chopra, Paper accepted in Indian Journal of Tuberculosis.
7. **Newer Rapid Diagnostic Methods in MDR TB case management.** Himanshu Vashistha, M. Hanif and K.K. Chopra, article published in 67th TB seal campaign 2016. The Tuberculosis Association of India.

Research papers presented in Conference

The 71st National Conference on Tuberculosis and Chest Diseases was organized by Tuberculosis Association of Union Territory, Chandigarh under the aegis of TB Association of India at Department of Pulmonary Medicine PGI Chandigarh from 16th – 18th December, 2016. Dr. K.K. Chopra, Director and Dr. M. Hanif, Bacteriologist NDTB Centre attended the conference.

Following research papers were presented in the conference:

1. Retesting by line probe assay of samples initially identified by CBNAAT as MDR-TB
2. Recovery of M. Tuberculosis isolates from compromised sputum specimens: a study of drug resistance pattern
3. Phenotypically confirmed XDR strains among MDR cultures with uncommon mutations in *rpob* gene

4. Efficiency of Genotype MTB DR plus in accurately identifying Mycobacteria other than tuberculosis (MOTT) in clinical samples
5. Diagnosis of Multi Drug Resistant Tuberculosis by Line Probe Assay and comparison with conventional culture and drug susceptibility test
6. Comparison of liquid culture DST with LJ culture DST for second line drugs Ofloxacin and Kanamycin among multi-drug resistant strains of *M. tuberculosis* isolated at an intermediate reference laboratory in Delhi

Research Projects

1. A multicentre study of diagnostic accuracy and feasibility of the Xpert Ultra for detection of TB and Rifampicin resistance in adults suspected of having pulmonary TB

The Xpert MTB/RIF (Xpert) assay, the first near-patient test for tuberculosis (TB), detects *Mycobacterium tuberculosis* (*Mtb*) with a limit of detection (LOD) of 133 CFU/ml sputum, and detects mutations in the *Mtb rpoB* gene which cause Rifampicin resistance (RIF-R). However, despite high sensitivity overall, Xpert sensitivity is only 60 – 80% in smear-negative TB. Also, small numbers of false RIF-R have been reported recently, usually due to abnormal real-time PCR curves or mis-identification of RIF-susceptible (RIF-S) synonymous *rpoB* mutants as RIF-R. A new molecular TB test with an LOD equivalent to the 10 – 100 CFU/ml LOD of liquid culture and improved RIF-R detection is needed. The new Ultra assay is much more sensitive than Xpert, and is likely to be as sensitive as liquid TB culture. Ultra detects RIF-R as efficiently as Xpert; but the specificity of Ultra RIF-R is likely to be higher due to improvements in assay design. The Ultra assay should significantly increase TB detection in smear-negative patients and provide more reliable RIF-R detection.

FIND Geneva is leading an eleven-site, eight-country study in partnership with the TB clinical diagnostic research consortium to assess the accuracy and feasibility of the Xpert Ultra test in adults suspected having pulmonary TB. In case of India, ultra study was initiated at NDTB, New Delhi along with few other sites which were geographically different. Two of the primary objectives of the study was to estimate and compare the sensitivity and specificity of the Ultra versus the standard Xpert MTB/RIF test for the detection of culture-positive pulmonary TB and for Rifampin resistance detection compared to the optical phenotypic drug susceptibility testing.

The project was funded by FIND Geneva and it started from March 2016 and completed on March 2017. All the objectives were fulfilled and the results obtained in the study have been submitted to FIND Geneva.

2. Accelerating TB Notification from the private health sector in Delhi, India.

The project has been completed during 2016-17 and report has been submitted to Delhi State TB Cell. The study showed that there was a significant improvement in TB case notification from the private sector and provided them NIKSHAY login for future notification of tuberculosis cases from their set-up as per RNTCP guidelines.

3. SMS for sure project

SMS for sure project was undertaken by NDTB with the aim of assessing the impact of SMS on TB treatment adherence. For this project an IT company was employed by the name of Shreya Web Solutions. The aim of this project is to see whether SMS has any role in decreasing default rates among TB patients.

Activities undertaken and outcomes till date:

- In the month of October 2015, 239 DOT providers were trained

in 8 batches .It was a one day training programme whereby they were explained about their role in the project.

- DTOs of all districts were sensitized during quarterly meet.
- A server was installed at NDTB in the month of October and the activity was pilot tested in first few days.
- A toll free number has been initiated for the benefit of DOT providers.
- The process: 6000 newly diagnosed patients were randomized into 3 groups by the server. Group 1 would received enrolment conformation SMS, weekly motivational SMS and a reminder SMS, as and when they missed a dose. Group 2 patients received enrolment conformation SMS, a reminder SMS when they missed a dose. Group 3 patients were not received any SMS except the study enrolment conformation SMS.
- The project was formally initiated from 2nd November 2015. A server was installed as mentioned earlier, at NDTB centre and 2 counsellors were hired by the IT company to telephonically address all queries of DOT providers.
- Outcome: The project is ongoing and 6000 patients were enrolled on 7th July 2016.Data on missed doses by patients is being compiled on the server. The results of 6000 patients registered in July 2016 (November 2015-July2016)is as follows:

(Updated as on 31st March 2017)

| | | | |
|---|---------------------------|---|----|
| ✓ | Group 1: 2000 | | |
| ✓ | Group 2:2000 | | |
| ✓ | Group 3 :2000 | | |
| ✓ | Total No. of Missed Doses | : | 87 |
| ✓ | Total No. of Default | : | 83 |
| ✓ | Total No. of Patient Died | : | 43 |

| | | | |
|---|--|---|------|
| ✓ | Total number of “Failure | : | 32 |
| ✓ | Total No. of patients who have successfully completed treatment | : | 2178 |
| ✓ | Transferred out | : | 22 |
| | Total | : | 2445 |

*Outcome of patients are awaited

It was decided that analysis would be undertaken for the period from 2nd November 2015 to 7th July 2016. Hence Patients registered between 2nd November 2015 till 7th July 2016, whose outcome were available would be included for analysis.

4. Framework of TB care in prisons

A project titled “Framework of TB care in prisons” is being managed by NDTB and the State TB Cell. Aim of this project is to estimate the burden of TB among prison inmates at Tihar Jail, frame the operational modalities for early detection of TB and drug resistant TB at Tihar Jail. Lastly, to mobilize standardized TB care practices among the jail inmates (during their stay in prisons and adequate referral thereafter). Talks are on with the Tihar jail officials to take up this project

5. TB case finding activities at night shelters of Delhi

New Delhi Tuberculosis Centre was involved with the aim the sensitization programme for Care Takers of Night Shelter with the objective of identifying TB suspects coming to stay at night shelters of Delhi. NDTB is planning to undertake this project. Aim of this project is to ensure that staff of night shelters is trained as DOT providers so that they can identify TB suspects and who are further referred to the nearby chest clinic for treatment. Long term objective is to open DOT centres in some of the night shelters.

In this regard a meeting was held on 25th April 2016 at NDTB Centre to discuss modalities about sensitization programme

for care takers of night shelter. Staff from Epidemiology section, NDTB, District TB officers, WHO consultant and representative from Delhi TB Association were involved. The care takers and supervisors were sensitized about symptoms, diagnosis, treatment and prevention of TB. IEC material and sputum cups were also provided to all night shelters. Three teams were identified to train staff of all districts by three teams of NDTB Centre, Delhi TB Association and Lok Nayak Chest Clinic. 22 chest clinics were identified which had night shelters in their district. Visits were undertaken from May 2016 to July 2016 for all the 22 districts. Every team had to conduct at least one sensitization programme once a week in their chest clinic on every Friday by using any method i.e. flip chart, presentation slides and lecture method etc. In every district, MOTC, STS and NGO representative were involved to conduct and coordinate the activity.

The sensitization was successfully imparted to staff of night shelters in all the districts. After this activity, every district is regularly reporting the TB cases put on treatment among inmates of night shelters in their monthly report. Care takers have also been trained to act as DOT providers for TB cases detected in their night shelters.

6. Accelerating access to quality TB diagnosis for pediatric cases.

This was started with efforts of RNTCP and FIND at New Delhi Tuberculosis Centre. Under this initiative, FIND have setup high throughput molecular lab at our site, catering exclusively to the TB diagnostic needs of pediatric population. This study provides accurate evidence based on same day diagnosis in line with internationally accepted standards of TB care with no cost to patient or provider both in private and public sector. This diagnostic option has been introduced at the existing RNTCP labs for the processing of pediatric specimens such as sputum, gastric lavage, BAL, induced sputum, lymph node

aspirated, etc. for use in Xpert MTB/RIF. Such an effort came as a big financial relief to poor patients and obviating the necessity to visit private labs and related huge costs.

All pediatrician both in public and private sector in the city referred pediatric suspects to our laboratory. The specimens were tested on the same day and the results communicated to referring provider electronically (E-mail and SMS) and simultaneously notified to RNTCP under Nikshay.

Overall 13,363 pediatric patients were tested between April 16 to March 17 under this project, out of which 2570 were non-respiratory specimens. The project has demonstrated the feasibility of extending Xpert test to non-sputum specimens from children with a very high proportion of interpretable results with more than a threefold increase in TB case detection over smear microscopy and detection of significant number of rifampicin resistant TB cases. The project has also shown the utility of offering up front Xpert testing to pediatric presumptive TB and DR-TB patients under programmatic conditions.

CBNAAT Performance:

**Project: Accelerating access to quality
TB diagnosis for Pediatric Cases**

(For the period from April 2016 to March 2017)

| | |
|--|-------|
| Total number of tests performed | 13109 |
| Total number of MTB not detected | 11682 |
| Total number of MTB detected and RIF sensitive | 1136 |
| Total number of MTB detected and RIF resistant | 191 |
| Number of Invalid test | 100 |
| Total number of EP-TB sample processed | 2570 |
| Total number of MTB detected and RIF sensitive | 283 |
| Total number of MTB detected and RIF resistant | 80 |

**Type of specimen received and X-pert results from
April 2016 to March 2017**

| Type of Specimen | No. of Specimen | Xpert Positive | Positivity (%) |
|-------------------------|------------------------|-----------------------|-----------------------|
| Abscess | 11 | 3 | 27 |
| Ascitec Fluid | 142 | 3 | 2 |
| BAL | 392 | 55 | 14 |
| CSF | 1162 | 84 | 7 |
| ET secretion | 32 | 5 | 16 |
| FNAB | 82 | 28 | 34 |
| Gastric Aspirate | 7875 | 529 | 7 |
| Gastric Lavage | 66 | 4 | 6 |
| Induced Sputum | 82 | 13 | 16 |
| Lymph Node | 177 | 86 | 49 |
| Pericardial Fluid | 25 | 3 | 12 |
| Pleural Fluid | 652 | 32 | 5 |
| Pus | 379 | 156 | 41 |
| Sputum | 2009 | 322 | 16 |
| Tracheal Aspirate | 23 | 4 | 17 |
| Grand Total | 13,109 | 1,327 | |

MD/MS/DNB Thesis being conducted in collaboration

1. Clinical correlates of drug sensitivity pattern in children with tuberculosis : A cross sectional study

(MD Thesis of PG student of Department of Pediatrics, Lady Harding Medical College,)

The burden of childhood tuberculosis (TB) reflects the ongoing TB transmission in a community. About one million children fall sick with TB every year. It is seen that the pattern of drug resistance in children of a community generally mirrors that of the adult population. Children rarely have acquired resistance because childhood TB is usually paucibacillary with small organism load. Hence it is unlikely that resistant mutants will occur and be selected. Childhood TB can be used as a sentinel marker to evaluate the effectiveness of a TB control programme. Surveillance of drug resistance is therefore essential because trends in primary drug resistance or initial drug resistance provide an indication of the effectiveness of the treatment regimen while drug resistance rate in patients with a history of previous treatment can indicate failures in the management of the disease. It is evident from the literatures that there is paucity of information on drug sensitivity pattern of isolates from children with TB especially in India. So the present study is being carried out to observe pattern of drug sensitivity and emerging drug resistance in children with TB. Children between 0-14 years of age diagnosed with TB (free from known immunodeficiency and serious illness) are being included in the study. Mycobacteriological examination like Xpert MTB Rif, Line Probe Assay and MGIT Culture and DST will be done. Result generated will help in understanding pattern of sensitivity and resistance in children suffering from TB so that better and timely treatment management can be offered and understood.

2. A study of the course of illness in children with extrapulmonary tuberculosis on standard chemotherapy

(MD Thesis of PG student of Department of Pediatrics, Lady Harding Medical College,)

Childhood tuberculosis (TB) accounts for 10 – 20% of all TB cases in high burden cases. The most common form of tuberculosis is pulmonary i.e. about 60-80% cases and rest 20-40% account for extrapulmonary TB (EPTB). The most common form of EPTB is lymph node. Other site of involvement includes central nervous system, abdominal, skeletal, etc. The problem in EPTB lies in diagnosing the cases and thereafter follow-up the cases to assess end point of cure. Symptom resolution is highly variable in all forms of EPTB and most of the understanding about the disease course comes from earlier studies on the natural history of disease. The exact pattern, timing of symptom response to modern day therapy and microbiological/ radiological improvement in patients after first time exposure to therapy especially in Indian setting is less clearly stated in the available literatures. Studies that have evaluated the course during treatment are old enough when the drug regimens used were entirely different from modern day chemotherapy. So the present study was designed to study the course of illness in children with EPTB on standard chemotherapy. 75 children above 06 months and upto 18 years of age with newly diagnosed EPTB were included in the study. Diagnostic tests like Xpert MTB Rif and MGIT Culture and DST were done during the course of treatment. Results generated from the study are under analysis.

3 To study the role of Cartridge Based Nucleic Acid Amplification Test (CBNAAT) in early diagnosis of pulmonary

tuberculosis and primary drug resistance in HIV positive patients

(MD Thesis of PG student of Department of Medicine, PGIMER, Dr. Ram Manohar Lohia Hospital)

Tuberculosis (TB) and Human Immunodeficiency Virus (HIV) have been closely linked since the emergence of AIDS. The lifetime risk of TB in immunocompetent persons is 5% to 10%, but in HIV positive individuals, there is a 5% to 15% annual risk of developing active TB disease. Studies have shown that pulmonary TB (PTB) in HIV positive patients remains the most common opportunistic infection in India ranges from 17% to 23%. Sputum microscopy in HIV positive patients is found to be less reliable in diagnosis of TB. Further, increasing number of patients with drug resistant tuberculosis (DR-TB) creates more challenges in its treatment. Conventional diagnosis of DR-TB relies on bacterial culture and drug susceptibility testing, a slow and cumbersome process. Thus, it is very important to identify PTB at an earliest so that it can be managed appropriately. Cartridge Based Nucleic Acid Amplification Test (CBNAAT) is one of a recently developed diagnostic modality which can simultaneously detect TB and perform drug susceptibility testing of one of the key drug – Rifampicin within few hours. So, the present study was carried out to study role of Cartridge Based Nucleic Acid Amplification Test (CBNAAT) in early diagnosis of pulmonary tuberculosis and primary drug resistance in HIV positive patients. 100 HIV positive subjects greater than 18 years of age presented with symptoms/ x-ray suggestive of TB were included in the study. Mycobacteriological examination like Xpert Rif and MGIT Culture of all the subjects were done. Results generated are under analysis.

4. Comparison of Line Probe Assay with conventional solid culture and drug susceptibility testing to detect multi drug resistant tuberculosis

(Ph.D Thesis submitted at Maharaj Vinayak Global University, Jaipur)

The global threat of multidrug-resistant tuberculosis (MDR-TB) to TB control, underscores the importance of prompt and rapid identification of such resistant strains. Isoniazid and Rifampicin are the key first line anti-tuberculosis drugs and resistant to these drugs is likely to result in treatment failure and poor clinical outcomes. As per an estimate, India has the largest number of MDR-TB cases amongst notified TB patients of any country.

Newly developed molecular based methods have advantages over conventional phenotypic methods in terms of both accuracy and turnaround time. The genotype MTBDR plus assay is commercially available. Line Probe Assay from Hain life sciences, Germany is designed to detect most important gene mutations conferring resistance to Isoniazid and Rifampicin. Although this assay has been studied in several laboratories, there is wide variation in circulating *M. tuberculosis* strains across the globe. Hence in this study, it was attempted to evaluate the performance of LPA for the rapid detection of MDR TB. The results of this molecular method was compared with that of the conventional phenotypic drug susceptibility to demonstrate the sensitivity, specificity and accuracy of LPA with its capacity to shorten the time required for TB diagnosis compared to that of conventional method.

5. Rapid screening of second line anti tuberculosis drugs resistance among MDR TB suspects by Liquid DST (MGIT

960) and comparative evaluation with Solid Proportion Method.

(PhD thesis of student, Department of Life Science, Jaipur National University, Jaipur,)

Rapid and accurate diagnosis of the Mycobacterium tuberculosis and its drug susceptibility pattern, is essential for timely initiation of treatment and ultimately, control of the disease. The importance of diagnosing XDR-TB among MDR-TB has been the driving force behind this study, more rapidly XDRs can be detected among multi drug resistant patients. This will lead to more rapid implementation of the best therapy for given patients. Therefore this study was initiated with the objectives, a) Screening of Kanamycin and Ofloxacin resistance in suspected MDR TB patients by Liquid DST method (MGIT 960) and Standard proportion method (Solid LJ DST), b) Comparison of sensitivity and specificity of Liquid DST (MGIT 960) for Kanamycin and Ofloxacin with Standard proportion method (Solid LJ DST), c) Evaluation of Diagnostic accuracy of both the methods in discordant results for the detection of XDR-TB, d) Detection of mutations imparting discordant resistance by DNA sequencing. In this study, all patients were subjected to sputum-smear microscopy for acid-fast bacillus (AFB) by fluorescence microscopy. All sputum smear positive specimens were tested for primary drug susceptibility by Line Probe Assay (LPA) method while sputum negative samples were directly cultured on MGIT system and when culture become positive these samples subjected to LPA. Diagnosed MDR specimens subjected to culture on MGIT 960 and Lowenstein-Jensen (L-J) slopes. All positive culture were further tested for drug susceptibility testing (DST) by MGIT 960 as well as by LJ proportion method for two drugs namely ofloxacin and kanamycin. Study is under process.

6. Genetic Polymorphism of rare mutations in rifampicin resistance of *Mycobacterium tuberculosis* infected patients.

(PhD thesis submitted to School of Life Sciences at Jaipur National University, Jaipur,)

The multidrug-resistant TB (MDR-TB) crisis continues, with an estimated 480 000 new cases in 2013. Genetic polymorphism is the occurrence of two or more alleles at one locus in the same population, and each with appreciable frequency. It is therefore equally important to identify the genetic origins of *M. tuberculosis* inter strain pathobiological differences in order to progress the eventual association of strain genotypes with patient clinical phenotypes. Several studies showed frequency of mutations outside RRDR region (hot spot) and it is also present in Indian *M. tuberculosis* isolates but their role and impact in polymorphism is not yet well studied. Therefore, in the present study we attempted to rapidly screen drug resistance among smear positive sputum samples by the use of LPA in Delhi region. The results of the molecular diagnostic method was compared with that of the phenotypic drug susceptibility test (MGIT 960 DST) to demonstrate the sensitivity, specificity and accuracy of LPA with its capacity to shorten the time required for TB diagnosis compared to that of the phenotypic DST method. The virulence of *Mycobacterium tuberculosis* and its genetic polymorphism prevalence in clinical isolates was studied through band pattern analysis in DNA strips of Line Probe Assay. DNA Sequencing was performed to confirm the mutations reported in this study which also confirmed Novel mutations. The technique described in our study may prove to be useful for identifying MDR-TB. The presence of uncommon mutations confirms genetic polymorphism that may require treatment targeted at both drug-resistant and drug-susceptible phenotypes for the better management of patients with MDR-TB.

7. Diagnosis of MDR & XDR-TB in Smear Negative pulmonary and Extra pulmonary specimens from drug resistant TB suspects

(Ph.D thesis of student Maharaj Vinayak Global University, Jaipur)

The emergence and spread of multidrug-resistant tuberculosis (MDR-TB) and extensively drug resistant tuberculosis (XDR-TB) are a major medical and public problem threatening the global health. A lot of work has been done on smear positive TB patients but sparse data is available on smear negative cases. Due to low mycobacterial load in early stage of infections, such patients are declared as smear negative even though they are actually positive. Such patients continuously spread infection in their close vicinity. Recovery of mycobacterium from such smear negative TB patients and the pattern of drug sensitivity/resistance observed in these cases can help in better management of these cases. Therefore, this study was initiated with the aim to determine the recovery of M. tuberculosis in smear negative samples through liquid culture using MGIT 960 and also to determine the number of drug resistant cases through Line Probe Assay. DST for second line drugs using MGIT was planned once culture positives were observed. Though intake of samples and the testing have been completed the data analysis is under process. This data on diagnose of drug resistance in smear negative and culture positive cases is very important.

8. Diagnosis of Multidrug Resistance Tuberculosis among suspects using molecular Line Probe Assay

(M.Sc dissertation submitted at Jaipur institute of Biotechnology, Maharaj Vinayak Global University, Jaipur)

Globally, tuberculosis (TB) cases continue to be on the rise despite aggressive public health interventions. India bears a quarter of world's tuberculosis burden and has the highest number of newly diagnosed cases annually. Drug resistant TB is the most important factor that threatens to disrupt the gains achieved in tuberculosis control. A prolonged time of diagnosis of six to eight weeks taken by the conventional culture and DST leads to the patients being treated with an inappropriate drug regimen, which results in the selection of drug resistant mutant strains and their continuous spread in the community. Many rapid methods have been developed to address this issue. A Genotypic method exploits the fact that MDR arises due to random mutations, mainly found in *rpoB*, *katG* and *inhA*. Line probe assay (LPA) is one of the rapid molecular methods which are used for the screening and diagnostic for pulmonary tuberculosis. Therefore, this study was conducted using LPA for the diagnosis of MDR-TB among the MDR-TB suspects. Smear positive subjects were subjected to DNA extraction, followed by amplification and development of blot by reverse hybridization. The data obtained correlate well with earlier reports from other studies.

9. Isolation of Mycobacterium from smear negative multidrug resistant TB suspects using liquid culture (MGIT 960)

(M.Sc dissertation submitted at Jaipur institute of Biotechnology, Maharaj Vinayak Global University, Jaipur)

Acid fast staining of clinical material, followed by smear microscopy remains the most frequently used microbiological test for detection of TB. The major drawback of sputum smear microscopy is its poor sensitivity. Also drug susceptibility status cannot be ascertained from smear microscopy. Culture of *M. tuberculosis* in clinical specimens is substantially more sensitive than smear microscopy. Culture can be performed using solid

media such as Lowenstein- Jensen or liquid media such as that used in commercially available automated systems. A major drawback with LJ culture method is that it is time consuming. On the other hand, liquid culture based methods have shorter TAT. The MGIT 960 system (supplied by BD) is currently recommended by WHO as well as RNTCP. Therefore, this study was initiated with the objective: To isolate *Mycobacterium tuberculosis* from specimens collected from sputum smear negative MDR-TB suspects using liquid culture (MGIT 960) and to compare both techniques: liquid culture (MGIT) and solid culture (LJ medium) with regard to *Mycobacterium tuberculosis* isolation. Sputum samples collected at DMC level were transported to IRL. Smears were prepared, stained by auramine and were examined under the microscope as per RNTCP guidelines. All smears declared as negative were further processed for liquid as well as solid culture. At the end of the study, the results were compared and good correlation was observed between both the methods. Positive growth was observed much early in liquid culture when compared with LJ culture.

PARTICIPATION IN SCIENTIFIC EVENTS

1. Review meeting of notification project was held on 9th April 2016 in New Delhi TB Centre. Six health workers of the project posted in the districts attended the meeting. The record of the visits made by them to private practitioners and laboratories were reviewed and further guidelines for working finalised.
2. Workshop to review roll out of Bedaqueline in Delhi state with The Union was conducted on 19th April 2016 in New Delhi TB Centre. Representative from The Union – State TB Cells, two project sites attended the workshop to finalise the activities to roll out the Bedaqueline at the earliest.
3. A training workshop for coordinating sensitization of night shelters in 25 districts was held on 25th April 2016. Three teams of NDTBC, Delhi TB Association and Lok Nayak Chest Clinic were trained to complete the process in two weeks.
4. One day workshop for review of “SMS for sure” project was held on 26th April, 2016. All the DOT providers with post paid mobile connections participated in the workshop. Reasons for low registration in the project were reviewed and resolved. All issues related to the project were discussed.
5. One day sensitization of DTOs was conducted in NDTB Centre on 29th April 2016 about the newly formed schemes of PPMs.
6. A Review meeting of notification project was held on 6th May 2016. The health workers posted in six districts from the project presented their report about notification of cases by private practitioners and laboratories in their respective districts.
7. A CME for private practitioners under ‘TB notification’ project was conducted on 7th May 2016 in Narela Chest Clinic. Private

practitioners of the area were invited for the CME. Dr. K.K. Chopra, Director delivered the lecture on TB notification which was followed by discussion. Similar activity was conducted on 24th May 2016 in Jhandewalan Chest Clinic.

8. Delhi state RNTCP review meeting was held on 11th May 2016 in New Delhi TB Centre. Dr. K.K. Chopra, Director, STDC presented the analysis of quarterly reports of 25 chest clinics. Principal Investigators of different OR projects being conducted in Delhi state presented the update on the projects.
9. Quarterly review of PMDT activities of Delhi state for 1st quarter 2016 was held on 18th May 2016 in NDTB Centre. Nodal officer of culture DST labs and DRTB centres presented their activities for the quarter. Issues related to newly established CBNAAT labs and nikshay entries were discussed and appropriate decisions were taken.
10. Sensitization programme held for 3rd year B.Sc (H) nursing students of RAK College of Nursing on 20th May 2016 in which they were sensitized about disease, treatment and prevention of tuberculosis and role of nurses in care of TB patients.
11. SPYM (night shelter and drug de-addiction centre), Darya Ganj was visited on 20th May 2016 by Dr. Shanker Matta, Epidemiologist and Ms. Shadab Khan, MSW to re-sensitized the staff and volunteers working with those children. The sensitization programme was held in form of group discussion where participants shared their problems currently faced with regard to TB patients and were given possible answers for their queries.
12. Five days workshop for training of counsellors was conducted in NDTB Centre with The Union from 23rd to 27th May 2016. A batch of ten counsellors for MDR cases to be posted in different parts of the country was trained during the workshop. Faculty

of NDTB Centre, the Union and State TB Cell took lectures and field visits during the workshop.

13. A CME for private practitioners under 'TB notification' project was conducted on 24th May 2016 in Pili Kothi Chest Clinic in which Dr. Shanker Matta, Epidemiologist delivered a lecture on TB notification.
14. A meeting of scientific committee of RBIPMT was held on 25th May 2016. Dr. K.K. Chopra, Director, Dr. M. Hanif, Microbiologist and Dr. Nishi, Statistician attended the meeting as member. Thesis protocols of DNB students were discussed in the meeting. All the protocols were recommended after few minor modifications.
15. A CME for members of Delhi Medical Association was organised by The Union and State TB Department on 28th May 2016 in DMA Hall. Dr. K.K. Chopra, Director was one of the facilitator. He delivered lecture on TB notification and Standards of TB care in India. About 50 doctors attended the CME.
16. Dr. Shanker Matta, Epidemiologist attended Protocol Development Workshop from 30th May 2016 to 3rd June 2016 conducted by National Institute for Research in Tuberculosis, ICMR, Chennai.
17. A CME for private practitioners under notification project was conducted in Shastri Park Chest Clinic on 31st May 2016. About 20 private practitioners attended the CME. Dr. Sandeep Saini, DTO Shastri Park Chest Clinic delivered a lecture on overview of RNTCP and Dr. K.K Chopra, Director STDC delivered a lecture on TB notification. This was followed by discussion.
18. Regional PMDT review and planning meeting of North Zone states was held from 8th to 10th June 2016 in Chandigarh by Central TB Division. Delhi state was part of the review meeting.

Dr. K.K. Chopra, Director and Dr. M. Hanif, Microbiologist were part of Delhi state team. Dr. K.K. Chopra, Director presented the PMDT activities of Delhi state which was followed by group work to assess the preparedness of state for universal DST roll out in Delhi state. It was proposed to roll out this service in Delhi state from first quarter of 2017.

19. The Tuberculosis Association of India (TAI) proposes to adopt a “district” and help effectively implement the RNTCP in a focused way so that it can be made “TB free district” within a reasonable time frame. To start with, it has been decided to adopt district Gaya in Bihar as this is the poorest and most neglected one. Dr. K.K. Chopra, Director was nominated as member secretary of a central team to make Gaya (Bihar) as TB Free District. The team was proposed by Vice Chairman, TAI and approved by Chairman, TAI (Director General Health Services).
20. A CME was organized for private practitioners under “Accelerating notification project” at NDMC Chest Clinic on 13th June 2016. Twenty private practitioners attended the CME. Dr. K.K. Chopra, Director delivered a lecture on ‘TB notification’ which was followed by discussion.
21. A meeting with representatives of ECHO India project was held in NDTB Centre on 14th June 2016. The place and modalities of setting up one ‘HUB’ centre at STDC under the project were finalized. The ‘HUB’ will be used for training of DTOs and para medical staff of RNTCP Delhi and also to review their periodical reports.
22. On site evaluation of IRL of NDTB Centre was held from 15th to 17th June 2016. A team from National Reference Laboratory visited laboratory of NDTB Centre, 3 CBNAAT sites of Delhi and 3 DMC of Delhi for their functioning and record keeping.

23. Sensitization of care takers and supervisors of night shelters under different chest clinics is being conducted. Dr. K.K. Chopra, Director alongwith District TB Officers of respective chest clinics discussed with staff of night shelters regarding referral of TB suspects and to work as DOT Providers for patients diagnosed among intimates of night shelters. The details of visits is as under:
- a) BSA Chest Clinic on 18th June 2016.
 - b) Ch. Desiraj Chest Clinic on 25th June 2016
 - c) BJRM Chest Clinic on 29th June 2016
24. Meeting of editorial board of IJT was held on 23rd June 2016 in TB Association of India. Dr. K.K. Chopra (Director) participated in the meeting as Associate Executive Editor of the Journal. During the meeting, TB Seal designs for the year was discussed and it was decided to keep 'Dolls of India' as TB seal design of this year.
25. SPYM (night shelter and drug de-addiction centre), Darya Ganj was visited on 20th June 2016 by Dr. Shanker Matta, Epidemiologist and Ms. Shadab Khan, MSW to re-sensitize the staff and volunteers working with those children. The sensitization programme was held in form of group discussion where participants shared their problems currently faced with regard to TB patients and were given possible answers for their queries.
26. A meeting to assess the preparedness of Delhi state for adopting universal drug sensitivity testing for diagnosed TB cases was held on 1st July 2016. Representatives of Central TB Division, WHO, Delhi state RNTCP team and STDC faculty participated in the meeting.

27. A review meeting of health workers of TB notification project was held on 1st July 2016. To discuss progress of the project and further steps to be taken were reviewed.
28. A CME was organized for private practitioners under “Accelerating notification project” at Patparganj Chest Clinic on 5th July 2016. Twenty private practitioners attended the CME. Dr. K.K. Chopra, Director delivered a lecture on ‘TB notification’ which was followed by discussion. Similar CME was also organized in Shahdara Chest Clinic on 11th July 2016.
29. The International Union Against TB and Lung (The Union) in Delhi organized a CME in collaboration with RNTCP on 09th July, 16. The theme of the CME was “Recent updates in TB Care and Control”. Dr. K.K. Chopra, Director delivered a lecture on “Standards of TB Care in India” during the CME.
30. Sensitization of care takers and supervisors of night shelters under different Chest Clinics is being conducted. Dr. K.K. Chopra, Director alongwith District TB Officer visited Shahdara Chest Clinic on 11th July 2016 to discuss with staff of night shelters regarding referral of TB suspects and to work as DOT Providers for patients diagnosed among intimates of night shelters.
31. TB Association of India has adopted Gaya district of Bihar to make it TB Free. Dr. K.K. Chopra, Director is member secretary of the committee constituted for this purpose. First meeting of the committee was held on 15th July 2016. Members discussed the plan of project implementation in the meeting.
32. A CME was organized in Dr MC Joshi Hospital under R.K. Mission Chest Clinic on 21st July’16. Dr. K.K. Chopra, Director delivered a lecture on “Standards of TB Care in India” during the CME.

33. Two days training of District TB Officers of Delhi state entitled “Training of daily anti-TB treatment and 3IS (ICF, IPT, AIC) strategy under TB HIV collaborative activities was held in New Delhi TB Centre on 25th and 26th July 2016. Facilitators were from NACO, State RNTCP Cell, WHO and Maulana Azad Medical College.
34. Meeting of Ethical Committee of NDTB Centre was held on 27th July 2016. A project entitled “Feasibility and Acceptability of Screening TB suspects in night shelters of Delhi” facilitated by ICMR, Chennai and funded by Global Fund was discussed for ethical clearance. The project has already been cleared by National OR Committee. After detailed discussion the project is cleared.
35. Meeting to discuss short term schedule for MDR TB cases was held on 27th July 2016 in Central TB Division. Dr. K.K Chopra (Director) and Dr. M. Hanif (Microbiologist) participated as national experts. Issues of second line LPA, relaxation in norms to introduce bedaquiline were also discussed.
36. Dr. K.K. Chopra, Director was panelist for live IMA webcast on 28th July 2016. Latest updates on TB management and prevention were discussed.
37. Core group meetings of ECHO project was held on 4th August 2016 in NITRD. The purpose of meeting was to give orientation of the project and its utility for RNTCP in Delhi. Dr. K.K. Chopra, Director attended the meeting as Delhi State RTNCP representative.
38. A meeting with nodal officers of DRTB centres and District TB Officers was held in NITRD on 5th August 2016. Purpose was to sensitize DTOs about ECHO Project, the modalities and timeline for setting up hubs in DRTB Centres. Dr. K.K. Chopra, Director attended the meeting.

39. Delhi TB Association organised one day sensitization workshop for community volunteers on 5th August 2016. Dr. K.K. Chopra, Director delivered a lecture on Hazards of irregular treatment and prevention of MDR TB.
40. Delhi state RNTCP review meeting was held on 10th August 2016 in New Delhi TB Centre. Dr. K.K. Chopra, Director, STDC presented the analysis of quarterly reports of 25 chest clinics. Principal Investigators of different OR projects being conducted in Delhi state presented the update on the projects.
41. One day orientation programme for doctors of Malviya Nagar Hospital was organised on 12th August 2016. Dr. M. Hanif, Microbiologist and Dr. Zeeshan facilitated the programme. Doctors were briefed about CBNAAT, its use and clinical significance in diagnosis of TB and MDR TB.
42. Quarterly review of PMDT activities of Delhi state for 2nd quarter 2016 was held on 17th August 2016 in NDTB Centre. Nodal officer of culture DST labs and DRTB centres presented their activities for the quarter. Issues related to newly established CBNAAT labs and nikshay entries were discussed and appropriate decisions were taken.
43. On 20th August 2016, 31 students of final year students of B.Sc (Hons) Nursing of Safdarjung College of Nursing were sensitized about care of TB patients under RNTCP in detail i.e. TB as a disease, treatment modalities etc. and also role of nurse for care of TB patients.
44. A meeting to make preparation for setting up of gene sequences and IGRA lab in NDTB Centre was held on 1st September 2016 in NDTB Centre. The meeting was attended by representatives from WHO, Central TB Division and Delhi state RNTCP.
45. Training for clinicians and researchers in GCP (Good Clinical

Practices) and Schedule Y to be followed for conducting clinical and drug trials was held at NITRD on 2nd September 2016. Dr. K.K. Chopra, Director attended the training.

46. Ethical committee meeting of NITRD was held on 2nd September 2016. Dr. K.K. Chopra, Director attended the meeting. Three research protocols and two drug trial notifications were discussed.
47. A sensitization programme for health workers of SOSVA NGO was held in NDTB Centre on 7th September 2016. They were briefed about symptoms of TB diagnosis, management and prevention of TB. Twelve health workers attended the sensitization programme.
48. WHO-RNTCP-IPC National collaborative workshop on Causality Assessment for Pharmacovigilance of Anti-Tubercular Medicines in India was conducted by Central TB Division with WHO on 8th and 9th September 2016. Dr. K. K. Chopra, Director and Dr. Shanker Matta, Epidemiologist attended the workshop.
49. Training of trainers for New Technical and Operative Guidelines under RNTCP was held from 18th to 23rd September 2016 at NTI Bangalore. Dr. K.K. Chopra, Director participated in the training programme.
50. A meeting regarding research project “Comparison of pooled sample examination versus single sample ability to detect drug resistance” was held on 27th September 2016 in Paediatric Department of Kalawati Hospital. Dr. K.K. Chopra, Director and Dr. M. Hanif, Bacteriologist are co-investigators for the study approved by National OR Committee. The revised proposal of the study was discussed and prepared to be submitted in Central TB Division for funding.

51. Two days workshop was held by WHO and Ministry of Health & Family Welfare in Delhi from 28th and 29th September 2016 regarding impact of air pollution on health. Dr. K. K. Chopra, Director and Dr. Shanker Matta, Epidemiologist attended the workshop.
52. A guest lecture on 'Electronic Nicotine Delivery System (ENDS) as a substitute to conventional cigarette: an evidence based Audit was organised on 30th September 2016 in community Medicine, Department of MAMC. Dr. K. K. Chopra, Director and Dr. Shanker Matta, Epidemiologist attended the lecture. Dr. K. K. Chopra, Director also chaired the scientific session.
53. A RNTCP sensitization programme was organised on 3rd October, 2016 for first year B.Sc students of Holy Family Nursing College. 56 students participated in the programme. They were briefed about diagnosis and management of TB under RNTCP and how to prevent TB in community. Dr. Shanker Matta (Epidemiologist) and Mrs. Gurpreet Kaur (PHN) were facilitators.
54. A meeting of national level expert committee for diagnosis and treatment of TB was organised in Nirman Bhawan on 6th October 2016. Dr. K.K. Chopra, Director participated in the meeting as one of the national experts. Shorter regimen for MDR TB and new strategic plan 2017-2023 was discussed in the meeting.
55. Financial management workshop for District TB Officers and District Accounts Managers under Delhi RNTCP was held on 7th October 2016, in STDC Delhi.
56. Ethical Committee meeting of World Lung Foundation – South Asia was held on 8th October 2016. Dr. K.K Chopra, Director attended the meeting as its member. Two research projects related to tobacco cessation were discussed and approved.

57. 67th TB seal campaign of NCT of Delhi was held in LG House on 14TH October 2016. Dr. K.K Chopra, Director attended the campaign.
58. A CME on TB Notification was organised by The Union and East Delhi Medical Association on 15th October 2016. Dr. K.K Chopra, Director attended the CME and delivered a lecture on “Standards of TB control in India”.
59. Two days consultative workshop on "National Strategic Plan for TB Control in India (2017-23)" was held in New Delhi on 18th and 19th October 2016. Dr. K.K Chopra, Director attended the meeting as an expert and delivered a lecture on “Challenge of RNTCP implementation – State perspective” during the workshop.
60. A training programme for 27 students of (Lady Health Visitors) from Lady Reading Health School was conducted on RNTCP-TB on 2nd November 2016.
61. Hands on training of Project ECHO was conducted in New Delhi from 8th to 10th November 2016. Dr. K.K. Chopra, Director attended the training with representatives from DRTB Centres of six sites of India and State TB Department. Training was conducted by facilitators from New Maxico University.
62. A trial run of project ECHO was conducted at NITRD on 11th November 2016. All DTOs of Delhi state attended the trial run. They were sensitized about the project ECHO and weekly clinics to be conducted.
63. One day workshop for “Stake holder for NABL accreditation of selected 15 laboratories” was organised on 13th November 2016 in Pune. The workshop was organised by Central TB Division and FIND. STOs and STDC Directors and Microbiologists of selected 15 laboratories participated in the workshop. Steps

for process of NABL accreditations were discussed and timeline for activities was drawn. Dr. K.K. Chopra, Director and Dr. M. Hanif, Microbiologist participated in the workshop.

64. Delhi State Operational Research Committee meeting was held on 15th November 2016 in NDTB Centre. Faculty of the Centre participated in the meeting. Dr. K.K. Chopra, Director presented status of three OR projects being undertaken at NDTB Centre. In all 22 OR proposals and thesis protocols were presented and discussed.
65. Secretary Health (Government of NCT of Delhi) conducted a review of various programmes of Delhi state on 21st November 2016. Dr. K.K. Chopra, Director presented the status of RNTCP in Delhi state during the review meeting. Various activities of RNTCP were discussed including challenge in financial management.
66. A meeting of NSP sub group 3 (Treatment Gp) was held on 25th November 2016 in NDTB Centre. Representatives from WHO, Central TB Division and faculty of NDTB Centre participated in finalising the draft of treatment as part of NSP strategy.
67. On the occasion of World AIDS DAY, a health mela was organised in Jawaharlal Nehru Stadium on 1st December 2016. Central TB Division put up a stall in the mela. NDTB Centre staff participated and put up demonstration of rapid TB Diagnostic – Gene expert test at the health mela TB stall.
68. State level review meeting for Bedaquiline implementation was held in Delhi on 8th December 2016. Dr. K.K. Chopra, Director coordinated the meeting. Nodal officers of DRTB sites presented the status of cases put on Bedaquiline containing regimen. Attached DST laboratories presented the data of the second line DST conducted on MDR cases to decide about their

eligibility for Bedaquiline. Representatives from Central TB Division, WHO and The Union attended the review meet.

69. Review meeting of “SMS for Sure” project was held in NDTB Centre on 9th December 2016. DOT Providers of selected chest clinics participated in the review meet. The data of patients enrolled in the project was discussed.
70. In MDR-ECHO clinic (which is held every Wednesday) on 14th December 2016, Dr. K.K. Chopra, Director delivered a Dietetics on “Challenges and constrains in Management of MDR TB”. This was in form of video-conferencing with District TB Officers of Delhi state.
71. Dr. Shanker Matta, Epidemiologist participated in three days training programme on “Logistics Management” from 14th to 16th December 2016 held in NTI, Bangalore. This was conducted by Central TB Division and emphasis was on systematically managing the distribution CBNAAT cartridges in the laboratories.
72. NATCON 2016 was held from 16th to 18th December 2016 at PGI Chandigarh. Dr. K.K. Chopra, Director and Dr. M. Hanif, Microbiologist attended the NATCON. Dr. Chopra delivered a lecture on “Standards of TB Care in India” during CTD session of Eradicating TB by 2050. Five research papers prepared by NDTB Centre were selected for poster presentation during the NATCON.
73. A CME programme was organised in the auditorium of Lady Hardinge Medical College by Delhi State RNTCP team on 21st December 2016. Dr. K.K. Chopra, Director delivered a lecture on “Standards of TB Care in India” during the CME.
74. A meeting to finalise the strategy for conducting “Active Case Finding – TB Services to door steps” was held in STDC on 23rd

December 2016. Representatives from State TB Cell and WHO participated in the meeting and discussed the strategies for conducting the project in Delhi state.

75. A one day sensitization programme for active case finding survey was conducted on STDC on 26th December 2016. District TB Officers of all the districts attended the programme. Steps of conducting and monitoring the survey were discussed. Their feedback on smoothly conducting the survey was also taken up and incorporated in the strategy.
76. ECHO MDR clinic was held on 4th January 2017. Didactic for the clinic was on “Nationwide special TB campaign for Active Case Finding” by Dr. K.K. Chopra, Director. This was followed by clinical case discussion by DTO, Gulabi Bagh Chest Clinic.
77. A meeting to review the progress of Paediatric CBNAAT Project was held on 6th January 2017 in STDC. Representatives of State TB Office, FIND and Dr. M Hanif, Microbiologist, NDTB Centre participated in the meeting. It was decided to wind up the project by March 2017.
78. A meeting of Treatment Group (National Strategic Plan 2017-2023) was held on 6th January 2017 in STDC. Representatives from NDTB Centre, WHO and Central TB Division participated and discussed to finalise the treatment group write up.
79. A national expert committee meeting was held on 18th January 2017 with DGHS, Ministry of Health & Family Welfare, Government of India regarding expansion of Bedaquiline with CAP conditions to other parts of the country. Dr. K.K. Chopra, Director attended the meeting. It was decided to identify at least 30 sites where facilities of second line DST are available and bedaquiline can be introduced in pre-XDR and XDR cases of these sites.

80. Regarding nationwide Active Case Finding Campaign, a meeting of District TB Officers of Delhi state with NGO partners was held in STDC on 19th January 2017. Constitution of field teams, their work instruction and schedule for supervision of this activity was discussed and finalised.
81. Weekly MDR-ECHO Clinic was held on 25th January 2017. This time the clinic was conducted from STDC for monitoring of Active Case Finding Survey. All the DTOs, NITRD Delhi, NTI Bangalore and STO of Tamilnadu were connected online. Field visit experiences of State Supervisors and DTOs were shared. Issues in the field activity were also discussed and resolved during the session. Similar sessions were also conducted on 1st and 8th February 2017.
82. Delhi TB Association organised a Community Volunteers Training Programme – “Health: a Social Movement” on 27th January 2017. Dr. K.K. Chopra, Director delivered a lecture on ‘Hazards of irregular treatment and prevention of MDR TB’. About 70 volunteers attended the session.
83. A CME was organised on 27th January 2017 in Rohini for members of Indian Association of Paediatricians (North Delhi Branch). They were briefed about CBNAAT paediatric project and guidelines of paediatric TB diagnosis and management. Dr. K.K. Chopra, Director attended the CME and participated in panel discussion.
84. Weekly ECHO clinic was conducted from STDC on 1st February 2017. 38 speakers and 140 persons attended the clinic. Activities of Active Case Finding Campaign being conducted in Delhi State was reviewed. State Supervisors shared their experiences and discussed various issues faced in the field.
85. Weekly ECHO clinic on 8th February, 2017 was conducted from STDC hub. This was last session for review of Active Case

Finding activities in Delhi State. 33 speakers and 119 participants attended the session. Final results of the two weeks activity were reviewed in the session and DTOs suggested some innovation to be included in second phase to be conducted in July, 2017.

86. Delhi State Task Force meeting was held on 10th February, 2017 in AIIMS. Faculty of NDTB Centre participated in the meeting as its members. Dr. Chopra, Director delivered a lecture on ‘Standards of TB care in India’.
87. A CME was organised in Jaipur Golden Hospital, Rohini, New Delhi on 11th February, 2017. The Doctors of various hospital attended the CME. Dr. K.K. Chopra, Director delivered a lecture on Clinical aspects and TB and its standard management.
88. One day sensitization for members of NGO VIHAN working in the community was held on 13th February, 2017. 25 members attended the programme. They were briefed about daily Anti TB treatment for PLHIV as per TB-HIV Co-ordination programme. Similar sensitization programme was held on 14th February, 2017 in which 20 participants attended the session.
89. Dr. Hanif (Microbiologist) attended an International Symposium on Genomics of Mycobacterium Tuberculosis which was held at NIRT, Chennai from 17th February, 2017 to 18th February, 2017. During the symposium, many eminent scientists from CDC, Atlanta, USA, University of Cambridge, U.K. Medical Research Centre, U.K. and Deptt, of Biotechnology, Government of India gave talks about whole genome sequencing and its application in TB and MDR TB diagnosis. Each session had power point presentations and panel discussions by distinguished scientists.
90. A workshop to discuss modalities to conduct Active TB Case finding in red light area of GB Road, New Delhi was held on 10th Feb, 2017 in NDTB Centre. Representatives from State TB

Cell, Delhi State AIDS Control Society and VIHAN, NGO attended the workshop. During the workshop, the work instructions were finalised as how to conduct the active case finding campaign. It was decided to start the campaign from 27th February, 2017 till World TB Day.

91. A CME for faculty and resident doctors of BJRM Hospital was conducted on 23rd Feb, 2017. Dr. K.K.Chopra, Director delivered a lecture on 'Recent Initiatives in Diagnosis and Management of TB under RNTCP'.
92. A sensitization meeting with stake holders for Active Case Finding among commercial sex workers and their family members was conducted on 23rd February, 2017 in STDC. Representatives from Chest Clinics – Pili Kothi and Lok Nayak Hospital, VIHAN NGO, outreach workers and Peer group working in GB Road area attended the sensitization. Process of Active case Finding campaign was briefed to them.
93. The two days consultative meetings to finalize National Strategic Plan (2017-23) was held in Delhi on 28th February, 2017 and 1st March 2017 by Central TB Division and WHO. Dr. K.K.Chopra, Director participated as a member of Treatment Group. Representatives from CTD, WHO, NGO, Partners, Medical Colleges, National Institutes and experts from various fields attended the meeting.
94. Ethical Committee meeting of NITRD New Delhi was held on 2nd March 2017. Dr. K.K. Chopra, Director attended the meeting as one of its member. During the meeting, total eight projects were discussed and some changes were suggested for incorporation.
95. A CME for doctors and staff of Urban Training Health Centre, Najafgarh was conducted on 10th March 2017. About 80 doctors

and para medical staff attended the CME. Dr. K.K. Chopra, Director delivered a lecture on “Newer Diagnostics and Standards of TB Care in India”.

96. Mid-term review of Active Case Finding Campaign was held on 14th March 2017 at New Delhi TB Centre. The representatives from Delhi State RNTCP team, VIHAN NGO and DSAC society attended the review meeting. Dr. K.K. Chopra, Director presented the findings of the campaign till date. The issue faced in the field activities and outcome of the campaign was discussed.
97. Weekly MDR ECHO clinic was held on 15th March 2017 in NITRD. Didactic was delivered for the clinic by Dr. M. Hanif, Microbiologist on “EQA issues under the National Programme in Delhi State”.
98. Delhi State PMDT review meeting was held on 16th March 2017 in STDC Delhi. Nodal officers of culture DST labs and DRTB centres presented their reports of the quarter. Various issues related to labs and especially bedaquiline intake were discussed.
99. A CME was organised by R.K. Mission Chest Clinic on 20th March 2017 as a part of World TB Day celebration. During the CME, Dr.K.K.Chopra, Director delivered a lecture on “Standards of TB Care in India (STCI) & Newer Diagnostics”.
100. A CME was organised by RBIPMT Chest Clinic on 21st March 2017 as a part of World TB Day celebration. During the CME, Dr.K.K.Chopra, Director delivered a lecture on “Standards of TB Care in India (STCI)”.
101. A “World TB day symposium” was organised by AIIMS on 22nd March 2017. During the symposium Dr. K.K. Chopra chaired a session on “Challenges of TB control”.

102. A CME on “Newer Initiatives in Revised National Tuberculosis Control Program in India” was organised by Department of Community Medicine, Maulana Azad Medical College in association with State TB Cell, New Delhi on 23rd March 2017. During the CME, Dr.K.K.Chopra, Director delivered a lecture on “Current perspectives in management of TB”.
103. A seminar on TB was organised by All India Institute of Medical Sciences (Clinical Microbiology Department) on 24th March 2017. During the CME, Dr.K.K.Chopra, Director chaired a session on “TB control activities at national level”.
104. Delhi TB Association has organised Seminar on ”TB Control and Prevention with special reference to participation of Delhi University (DU) Students to End TB” as part of this year World TB Day Celebrations on 30th March 2017. During the programme, Dr. K.K. Chopra delivered a lecture “Challenges of TB control”.
105. A press conference was organised in Press Club of India on 31st March 2017. This was regarding dissemination of results of Active Case Finding among female sex workers in GB Road area. Dr. K.K. Chopra, Director briefed about the results of Active Case Finding Campaign.

MEETINGS

1. The Annual General Meeting of TB Association of India was held on 4th April 2016. Various staff members attended the said meeting.
2. The Central Committee Meeting of TB Association of India was held on 4th April 2016. Dr. K.K. Chopra, Director attended the said meeting as its member.
3. A meeting to prepare Bye-Laws of NDTB Centre was held on 3rd May 2016 in NITRD Delhi under chairmanship of Dr. Rohit Sarin (Director-NITRD). Dr. Devesh Gupta (Addl. DDG-TB), Mr. Ahluwalia (Secretary General-TAI) and Director, NDTB Centre were members of the Committee. The draft Bye-Laws and Recruitment Rules of Group B and C posts were discussed. It was decided to make some minor corrections and circulate among its members for approval and to be put up to the Chairman, Managing Committee, NDTB Centre.
4. Final meeting of Bye-Laws Committee of New Delhi TB Centre was held on 4th June, 2016 in NITRD. It was decided to put up the final draft to Managing Committee of NDTB Centre.
5. Meeting of Managing Committee of New Delhi TB Centre was held on 18th October 2016 in conference room of NDTB Centre under the chairmanship of Dr. L.S. Chauhan. Various issues related to general administration were discussed. The annual report and budget estimates were approved.
6. A programme to distribute two wheelers to supervisory staff of RNTCP was organised on 21st November 2016 by Delhi state RNTCP department. The Health Minister of Government of NCT of Delhi was the Chief Guest. Dr. K.K. Chopra, Director presented the brief on activities of RNTCP in Delhi state during the function.
7. A meeting of Delhi TB Association was held on 25th January 2017 to discuss the issues regarding maintenance of their building. Dr. K.K. Chopra, Director participated as one of its member.
8. Central Committee meeting of TB Association of India was held on 27th March 2017. Dr.K.K.Chopra, Director attended the meeting as its member. Staff members of NDTB Centre also attended the Annual General Meeting of TAI on the same day.

CLINICAL SECTION

OPD Services

The Centre caters to patients of TB and Respiratory diseases referred for diagnosis and opinion from different departments of LN Hospital, GB Pant Hospital and Guru Nanak Eye Centre. Many private practitioners and doctors of various hospitals of Delhi and neighbouring states also refer patients for expert opinion on diagnosis and treatment. Apart from seeing patients from our designated area, we are increasingly getting many complicated cases from all over Delhi and outside Delhi. Most of these patients have been under management from a variety of doctors (both private and public sector) for months together and are still searching for a valuable opinion. During the year, 2016-17 the total OPD attendance at the Centre was 10157 and revisits were 9895. The total attendance in the clinic was 20052. The table shows month-wise distribution of OPD attendance

Total OPD Attendance during the year (April 2016 to March 2017)

| S.No. | Month | Male | Female | Total |
|-------|--------------|-------------|--------------|--------------|
| 1. | April'16 | 655 | 811 | 1466 |
| 2. | May'16 | 767 | 914 | 1681 |
| 3. | June'16 | 854 | 1197 | 2051 |
| 4. | July'16 | 714 | 974 | 1688 |
| 5. | August'16 | 697 | 1062 | 1759 |
| 6. | September'16 | 700 | 920 | 1620 |
| 7. | October'16 | 625 | 864 | 1489 |
| 8. | November'16 | 610 | 858 | 1468 |
| 9. | December'16 | 616 | 921 | 1537 |
| 10. | January,17 | 665 | 1068 | 1733 |
| 11. | February'17 | 623 | 1153 | 1776 |
| 12. | March'17 | 686 | 1098 | 1784 |
| | Total | 8212 | 11840 | 20052 |

TB and Diabetic screening

As a routine all registered patients are tested for Blood Sugar (Fasting) to detect Diabetes Mellitus before starting treatment. In all a total of 66 patients were put on DOTS during the year 2016-2017. Four patients were found diabetic, they were referred to Diabetes clinic for its management.

COAD Clinic

Other than TB patients, a bulk of our OPD attendance comprises of COAD patients. As a standard protocol, we have a very well checked out plan of management for them wherein their disease is well controlled requiring no admissions/emergency room visits for acute exacerbations. During the year, 562 patients were screened out of which 310 were male and rest 252 were female which shows that satisfaction level and acceptance to treatment of these COAD patients is very high.

Tobacco and cessation clinic

Since January 2013, the tobacco cessation clinic is being run by our staff where patients are made to understand the harmful effects of smoking. Not only that, counseling sessions are being arranged for them and we try to motivate them for leaving these habits. By the end of March, 2017, 104 patients have been registered and then are attending the clinic regularly. 43 of them have completely given up smoking and are feeling better and healthy, 35 have reduced and their habit of smoking and alcohol.

Radiological Examination

Table below gives month-wise distribution of radiological examination done.

**X-ray examinations done during the year
(April 2016 to March 2017)**

| S.No. | Month | No. of X-ray done | New Cases | Old Cases |
|--------------|--------------|--------------------------|------------------|------------------|
| 1. | April'16 | 102 | 85 | 17 |
| 2. | May'16 | 145 | 122 | 23 |
| 3. | June'16 | 106 | 82 | 24 |
| 4. | July'16 | 132 | 110 | 22 |
| 5. | August'16 | 155 | 119 | 36 |
| 6. | September'16 | 122 | 99 | 23 |
| 7. | October'16 | 111 | 83 | 28 |
| 8. | November'16 | 131 | 102 | 29 |
| 9. | December'16 | 105 | 80 | 25 |
| 10. | January,17 | 117 | 84 | 33 |
| 11. | February'17 | 133 | 99 | 34 |
| 12. | March'17 | 202 | 158 | 44 |
| | Total | 1561 | 1223 | 338 |

DOTS Centre

One DOT cum Microcopy Centre is situated in the complex of the Centre. Here free diagnosis and treatment is provided to patients who belong to the area according to RNTCP guidelines. The doctors of the Centre screen the TB suspects, advise investigations and categorize the patients suffering from TB for treatment. Patients of the DOT centre also visit our OPD for management of side effects due to intake of Anti-TB drugs.

Presently 28 patients are enrolled at DOTS Centre situated at NDTB Centre and are taking regular treatment. The details are given below:-

| Category | No. of Patient |
|-----------------|-----------------------|
| Cat I | 22 |
| Cat II | 3 |
| Pediatric cases | 3 |
| Total | 28 |

EPIDEMIOLOGICAL SECTION

Epidemiology section of New Delhi Tuberculosis Centre is involved in various activities. Some of the key activities being undertaken are screening of staff from various organizations, like National Zoological Park, hotels, embassies, involvement in various projects, monitoring and supervision of various chest clinics of Delhi, involvement in TB related projects etc.

(A) Active Case Finding Campaign among high risk groups

One of the activity undertaken by the Epidemiology Department of New Delhi Tuberculosis Centre was the supervision of Active case finding campaign of TB cases in January 2017. Active case finding campaign through house to house survey for search of TB symptomatic was proposed by Central TB Division in January 2017. This was a national level activity which is being implemented throughout the country. This was a 2 weeks activity which is to be conducted thrice in this year. A team of 4 persons which includes RNTCP DOT provider, ASHA worker and NGO representative conducted house to house survey. With the guidance of DTO, the team was to identify high risk groups (slum population, prisons, construction sites etc), to look for TB symptomatic. Before the survey all DTOs of Delhi state were trained for this activity. They were also requested to do mapping of their respective area specifically targeting slum population, construction sites, prisons, and night shelters for this activity. A format was designed for this survey. The team visiting the high risk groups had to note details like name of the resident, age, sex address. A question regarding symptoms of TB was asked, if the answer was no; the team had to mark the house with chalk and move on to the next house. If the answer was yes (that is any person in the family had cough for 2 or more weeks duration/fever etc) an on the spot sputum sample was collected by the team and the patient is convinced to come to the centre to provide second sputum sample. Mobile numbers of symptomatic patients are noted so that they can be followed up later. Supervision of this activity was conducted by staff of State TB cell,

WHO consultant and NDTB faculty. At the end of the day the staff had to submit the filled formats. Another important activity was the entry of the identified TB cases on the Nikshay portal which has to be entered by the data entry operator of the respective chest clinics. For the ground level staff conducting house to house survey this was an incentivized activity. For each positive case found and initiated on treatment the government has proposed an incentive amount of Rs 500/- for the team involved in the survey.

During the ECHO based meet, various problems were highlighted by DTO's as well as the ground level staff, which were encountered during the campaign. Problems like refusal to provide second sputum sample, difficult areas to be covered, pockets with drug addicts/dangerous areas etc were encountered as well as highlighted. Reason behind highlighting these problems was to be prepared for the next ACF activity which is to be conducted in the month of July and December 2017. During these months, campaign activity would be conducted on similar lines taking into consideration the problems encountered in the present survey

Results of the activity:

- Total number of persons screened : 189633
- Number of sputum suspects from whom samples examined : 2817
- Number of TB patients diagnosed : 242

(B) ACF activity for TB cases in GB road area

Another activity undertaken by Epidemiology department, New Delhi Tuberculosis Centre was Active case finding campaign through house to house survey for search of TB symptomatic. This was a national level activity which is being implemented throughout the country. This was a 2 weeks activity which is to be conducted thrice in this year. It was proposed that this activity should also be conducted in the GB road area, which is also a red light area. An NGO by the name of VIHAAN working in the field of HIV AIDS was involved. Outreach

workers working with the AIDS programme were trained to identify TB cases through house to house survey. Ground level staff from Pili kothi chest clinic and LNJP chest clinic also attended the training. Idea behind this was to help the team initiate patients treatment. Staff from VIHAAN as well as outreach workers including peers working in GB road area were trained to identify chest symptomatic .This was a one day training programme conducted on 23rd February 2017. 4 teams were identified to conduct the survey. Each team comprised of a Peer, Vihaan NGO representative and 2 outreach workers. If a patient is found with TB symptoms the outreach worker would note details of the patient and his sputum would be examined at NDTB. The team has to ensure that sputum sample is collected and they bring the patient to NDTB for x-ray as well as second sample. An incentive of Rs 50 per sample is being given to the outreach worker for bringing the patient. EP samples are being sent to LNJP for culture. This was a 20 day long activity. Data compilation, analysis, monitoring and supervision was undertaken by staff of NDTB

Results of the activity:

- Total population screened : 2517
- Total number of buildings covered : 22
- Total number of rooms covered : 95
- Total number of sex worker population screened : 1875
- Number of sputum suspects examined : 57
- Number of TB patients diagnosed : 02

PUBLIC HEALTH SECTION

Public Health Section is one of the department of New Delhi Tuberculosis Centre. This department is involved in various activities including public health interventions. Following activities are undertaken with the help of specialized staff which includes an Epidemiologist, Public Health Nurse, Medical Social Worker and Multi Purpose Health Worker:

Health talk

Health talk is one of the major activity through which information is disseminated amongst masses. This is the simplest method to communicate any message from one person to another. New Delhi TB Centre is conducting in-house health talk on daily basis in its main OPD hall where around 150-200 patients and their relatives visit every day.

TB and film shows

By using audio-visual aids we try to generate awareness amongst our patients and their relatives. We have various documentaries made on TB which are being displayed every day in our main OPD hall. We distribute print material to our visitors to recapture our message given by us through word of mouth.

TB Supervisor course

During this year 4 batches took 3 months training of TB Supervisor Course. The total strength of students was 51. Broadly our focus was on following aspects:

- Tuberculosis
- RNTCP
- Modules used in RNTCP
- General aspects of health care

Mantoux test

Mantoux test is done at the NDTB Centre. Apart from being referred from the OPD of NDTB Centre the patients are also referred from various government hospitals as well as those taking treatment by private practitioners for Mantoux Screening.

During the period April 2016 to March 2017, 8425 mantoux test were done at the NDTB Centre. Out of these, results of 7451 patients were available. Month-wise Mantoux screening undertaken is as follows:

| Month (2016-17) | Total test | Test read | Reactors (>10mm) | Non Reactors (<10mm) |
|----------------------------|-------------------|------------------|--------------------------------|------------------------------------|
| April'16 | 619 | 549 | 279 | 270 |
| May'16 | 719 | 634 | 281 | 353 |
| June'16 | 895 | 787 | 400 | 387 |
| July'16 | 741 | 649 | 312 | 337 |
| August'16 | 723 | 635 | 325 | 310 |
| September'16 | 657 | 590 | 242 | 348 |
| October'16 | 667 | 580 | 237 | 343 |
| November'16 | 597 | 509 | 215 | 294 |
| December'16 | 639 | 572 | 236 | 336 |
| January,17 | 753 | 659 | 271 | 388 |
| February'17 | 767 | 691 | 291 | 400 |
| March'17 | 648 | 596 | 263 | 333 |
| Total | 8425 | 7451 | 3352 | 4099 |

Anti TB week celebration

To mark the occasion i.e. World TB Day (24th March) we organise different community based programmes with various NGOs working

with us. This year also, our organisation conducted different programmes as per below mentioned schedule

| Date & Time | Programme | Methodology | Participants |
|------------------------|---|---|---|
| 2.4.2017 10.00 AM | Inauguration of Anti TB Week Poem Competition | All Participants to write poem on TB | Bacho Ka Ghar SPYM (Male) SPYM (Female) + Student TB Supervisory |
| 3.4.2017 10.00 AM | Painting Competition | Painting competition covering various aspects of Tuberculosis | Bacho Ka Ghar SPYM (Male) SPYM (Female) |
| 4.4.2017 10.00 AM | Slogan and completion speech | All participants will write slogan and present speech on TB | Bacho Ka Ghar SPYM (Male) SPYM (Female) |
| 7.4.2017 10.00 AM | Quiz competition | All participants to NGO + TB Supervisor students to answer questions regarding Tuberculosis | Bacho Ka Ghar SPYM (Male) SPYM (Female) + Student TB Supervisory |
| 24.4.2017 11.00 AM | Function | Prize distribution | Bacho Ka Ghar SPYM (Male) SPYM (Female) + Student TB Supervisory |

All the winners of competition were awarded prizes. This year theme is "Unite to End TB". This event is covered by local news paper named 'SAHAFAT' Delhi.

Community meeting and health talk

| | | |
|-----------------------------------|--|----------------------------------|
| 31 st May 2016 | 'World No Tobacco day' was celebrated where a health talk was delivered highlighting the harmful effects of smoking and other drugs. | All visitors of OPD |
| 5 th June 2016 | World Environment Day was celebrated at our Centre. The staff was requested to voluntarily donate a plant for centre. | Staff NDTBC |
| 1 st July 2016 | An interaction session was organized by the Centre where all the doctors and other staff attended the session. The new drug regimen and treatment updates were explained to staff by our doctors on 'DoctorsDay'. | Doctors and other staff |
| 11 th July 2016 | A community meeting was organized at Mata Sundari Road Juggi Cluster. The local community was sensitized about TB and its importance. | All residents |
| 12 th August 2016 | A quiz competition was organized for TBHV students on youth rights to generate awareness about youth programmes. | Students TBHV & staff |
| 20 th November 2016 | 76 th Annual day was celebrated on 20 th November 2016 where CMEs for doctors was organized. The staff was invited for lunch. Various sports competitions were organized by the Centre to mark the occasion. | All staff |
| 1 st December 2016 | A health talk was organized at SPYM girls where inmates and staff were sensitized about AIDS and HIV. | Staff and inmates of SPYM female |
| 24 th March 2017 | Anti TB Week, World TB Day Celebration | |

TB Screening:

NDTB Centre is not only catering to TB patients but also tries to reach community through its community based programmes. There are three organizations namely, SPYM Girls (Street and Working Children), SPYM Boys and Bachon Ka Ghar Orphanage working in old Delhi area. All children of these organizations were screened for TB. This year 103 children were examined.

During the month of February / March 2017, Active case detection activity was conducted in collaboration with VIHAN. VIHAN is an organisation working for HIV positive patients. They try to detect the positive cases from different brothel houses. Recently with the help of outreach workers we have screened 56 TB suspects, out of which 3 were put on treatment. They are taking medicines from Pili Kothi Chest Clinic.

| S. No. | Gender | X-ray examination | | Sputum examination | | CBNAAT | Put on treatment |
|---------------|---------------|--------------------------|-----|---------------------------|-----|---------------|-------------------------|
| | | -ve | +ve | -ve | +ve | | |
| 1. | Male | 16 | - | 14 | - | - | - |
| 2. | Female | 35 | 5 | 33 | 1 | 5 | 3 |
| | | 51 | 5 | 47 | 1 | 5 | 3 |

5 patients underwent CBNAAT after X-ray examination.

In the month of March 2017, we have adopted three communities with the objective of making them TB free community. Aim was to find TB symptomatic in the community and if diagnosed with TB, to initiate treatment. The communities adopted and made TB free are:

- 100 quarter behind Ferozshah Kotla Stadium
- Kotla Road Juggi Cluster near Bal Bhawan
- Juggi Cluster, Mata Sundari Road

The results of TB screening activity conducted in these areas are given below in the table:-

Results of TB screening activity

| S. No. | Name of the community | Total house | Total population average population /house | Number of symptomatic found | Put on treatment |
|--------|-----------------------|-------------|--|-----------------------------|------------------|
| 1. | *100 quarter | 171 | 855 | 5 | 1 |
| 2. | **Kotla Road Juggi | 125 | 250 | 13 | 1 |
| 3. | ***Mata Sundari Road | 190 | 950 | 13 | - |
| | Total | 486 | 2055 | 31 | 2 |

* 100 quarters consists of 171 houses out of which 147 houses were covered by our health workers, 24 houses were locked. Only five symptomatic were found who were further screened at our Centre. 1 patient was diagnosed with TB and he was put on treatment from our DOT Centre under Cat I sputum negative regime.

** In Kotla Road Jhuggi, there are total 125 jhuggies out of which 25 jhuggies are in duplicate means one person having two jhuggies and rest of 50% i.e. 50 juggies found were locked. Only 50 jhuggies were covered and the population covered was 250. 13 symptomatic were screened. Out of which 1 was diagnosed with TB and put on treatment.

*** The third community adopted is Mata Sundari Road, Jhuggi Cluster, New Delhi. Where approximately 300 plus jhuggis were found and 190 jhuggis were surveyed by our health worker. People residing there are engaged in different factories of car spare parts situated in the community itself. Most of them are illiterate and alcoholic. In all 13 symptomatics were found.

MYCOBACTERIAL LABORATORY

The laboratory is certified as Intermediate Reference Laboratory by Central TB Division, Min. of Health & Family Welfare, Government of India for Line Probe Assay, solid and liquid culture and DST. Samples are received from 17 chest clinics of Delhi for diagnosis and follow-up under PMDT activities. Base line drug susceptibility testing for second line drugs are being carried out in routine using MGIT 96 liquid culture system. This laboratory is being selected as one of the site to conduct Line Probe Assay for second line drugs.

Annual Annexure M for the year, 2016 (District Wise)

| Name of DMC | Nos. of TB suspects examined for diagnosis | Nos. of TB suspects found to be positive | Nos. of TB suspects undergoing repeat diagnostic examination | Nos. of TB suspects found to be positive on repeat diagnostic examination | Nos. of follow-up patients examined | Nos. of follow-up patients found to be positive | Total nos. of slides examined | Total nos. of negative slides examined | Total nos. of positive slides examined |
|--------------------|--|--|--|---|-------------------------------------|---|-------------------------------|--|--|
| BJRM | 6649 | 679 | 86 | 5 | 1938 | 68 | 15355 | 1411 | 13944 |
| GTBH | 10505 | 1338 | 55 | 4 | 2173 | 193 | 23299 | 2849 | 20450 |
| HEDGEWAR | 4566 | 610 | 43 | 5 | 826 | 82 | 10027 | 1322 | 8705 |
| KCC | 6514 | 771 | 18 | 2 | 2909 | 141 | 15966 | 2526 | 13440 |
| LNH | 9676 | 796 | 30 | 1 | 818 | 67 | 18458 | 1647 | 16811 |
| JHANDEWALAN | 2520 | 425 | 18 | 2 | 1277 | 111 | 6307 | 950 | 5357 |
| SPM MARG | 4463 | 503 | 26 | 3 | 1014 | 72 | 9925 | 1139 | 8786 |
| SHAHDARA | 5303 | 782 | 244 | 2 | 2057 | 206 | 12647 | 1724 | 10923 |
| PATPARGANJ | 13999 | 1954 | 317 | 3 | 4556 | 286 | 33019 | 4088 | 28931 |
| RKM | 2673 | 303 | 146 | 24 | 764 | 44 | 6370 | 645 | 5725 |
| NEHRU NAGAR | 13019 | 1708 | 65 | 13 | 6170 | 508 | 35143 | 4148 | 30995 |
| | | | | | | | | | |

| | | | | | | | | | |
|----------------------|---------------|--------------|-------------|------------|--------------|-------------|---------------|--------------|---------------|
| MOTI NAGAR | 11491 | 1601 | 197 | 29 | 3659 | 181 | 25971 | 3132 | 22839 |
| RTRM | 8948 | 934 | 58 | 7 | 2134 | 212 | 20158 | 2053 | 18105 |
| NARELA | 6936 | 1034 | 16 | 0 | 2518 | 235 | 16450 | 2235 | 14215 |
| K. NAGAR | 6472 | 1067 | 19 | 3 | 3397 | 296 | 16258 | 2387 | 13871 |
| NDMC | 21837 | 2469 | 41 | 1 | 3127 | 231 | 46688 | 5227 | 41461 |
| BSA | 6947 | 951 | 116 | 3 | 2341 | 157 | 16470 | 1937 | 14533 |
| DDUH | 10805 | 1379 | 129 | 21 | 3622 | 246 | 25193 | 2980 | 22213 |
| GULABI BAGH | 3571 | 292 | 89 | 3 | 694 | 52 | 7698 | 591 | 7107 |
| LRS | 7710 | 850 | 30 | 1 | 2151 | 137 | 17602 | 2390 | 15212 |
| SGMH | 8016 | 1091 | 25 | 1 | 2855 | 108 | 18686 | 2142 | 16544 |
| SHASTRI PARK | 6955 | 1068 | 90 | 11 | 2841 | 268 | 16908 | 2368 | 14540 |
| DESHRAJ | 6109 | 759 | 70 | 14 | 1857 | 170 | 12374 | 1694 | 10680 |
| MALVIYA NAGAR | 5137 | 841 | 8 | 2 | 2976 | 421 | 13217 | 2096 | 11121 |
| BIJWASAN | 5363 | 532 | 38 | 18 | 2622 | 279 | 14320 | 1452 | 12868 |
| Total | 196184 | 24737 | 1974 | 178 | 61296 | 4771 | 454509 | 55133 | 399376 |

During the year, a total of 1,96,184 TB suspects were examined for diagnosis in all 25 chest clinics of Delhi state out of which 24,737 were found positive. 4,54,509 slides were examined as per data received from TB laboratory abstract. Out of these 55,133 slides were found positive. A total of 3,99,376 slides were found negative.

On-site Evaluation visit and Panel Testing

An IRL team comprising of Microbiologist, one Medical officer and one Laboratory Technician visits each chest clinic at least once a year to DTCs for on-site evaluation. During the visit, randomly selected DMCs are also covered for evaluation.

Recommendations of the annual supervisory visits to the districts by the IRL have focused on operational and technical problems of the laboratories including availability of staff, infrastructure, regular supply of consumables and training. During the visit, panel testing for STLs was conducted. DMCs reporting false positive or negative errors in RBRC were also visited by the IRL team.

List of DTCs visited by IRL Team for OSE

| S. No. | Name of Chest Clinic | Date of visit |
|---------------|-----------------------------|----------------------|
| 1 | BJ RM Chest Clinic | 03/03/2016 |
| 2 | Patparganj Chest Clinic | 09/03/2016 |
| 3 | GTB Chest Clinic | 15/02/2016 |
| 4 | R.K. Mission Chest Clinic | 11/04/2016 |
| 5 | CH. Desraj chest clinic | 30/05/2016 |
| 6 | S.Park Chest Clinic | 13/07/2016 |
| 7 | KCC Chest Clinic | 14/07/2016 |
| 8 | BSA Chest Clinic | 27/07/2016 |
| 9 | Narela Chest Clinic | 26/07/2016 |
| 10 | Karawal Nagar Chest clinic | 29/07/2016 |
| 11 | LNH Chest Clinic | 04/08/2016 |
| 12 | SGMH Chest Clinic | 09/08/2016 |
| 13 | SPM Chest Clinic | 11/08/2016 |
| 14 | Gulabi Bagh Chest Clinic | 16/08/2016 |
| 15 | Shahdara Chest Clinic | 19/08/2016 |

| | | |
|----|----------------------------|------------|
| 16 | Jhandewalan Chest Clinic | 07/09/2016 |
| 17 | Malviya Nagar Chest Clinic | 20/09/2016 |
| 18 | Bijwasan Chest Clinic | 14/09/2016 |
| 19 | NITRD Chest Clinic | 22/12/2016 |
| 20 | RTRM Chest Clinic | 27/12/2016 |
| 21 | Hedgewar Chest Clinic | 07/11/2016 |

Programmatic Management of Drug Resistant Tuberculosis (PMDT) Activities

The laboratory got certification by CTD for Line Probe Assay, solid and liquid culture and DST. Currently sputum samples received from 17 chest clinics for diagnosis and follow-up under PMDT activities in Delhi.

**PMDT activities carried out during the year April 2016 – March 2017
(Specimens processed on culture or DST)**

| Quarter 2016- 2017 | Diagnostic Sputum Specimens inoculated | Follow-up Specimens inoculated | LPA DST Done | H+R Sens | H+R Res | Only H Res | Only R Res |
|--------------------------|---|--------------------------------------|-----------------|-------------|------------|------------------|------------------|
| 2Qr 2016 | 1848 | 1745 | 1350 | 1030 | 143 | 122 | 22 |
| 3Qr 2016 | 1747 | 1759 | 1318 | 1023 | 168 | 115 | 22 |
| 4Qr 2016 | 1359 | 1693 | 1354 | 1078 | 145 | 78 | 23 |
| 1Qr 2017 | 1597 | 1867 | 1044 | 847 | 111 | 73 | 13 |
| TOTAL | 6551 | 7064 | 5066 | 3978 | 567 | 388 | 80 |

The table provide the details of laboratory tests done under PMDT activities during the year 2016-17. A total of 6551 sputum specimens were processed out of which 567 cases turned out to be MDR-TB and 80 Rif mono resistant.

**Laboratory examinations carried out for cases referred by
Private Practitioners during the year 2016 - 2017**

| Month | Laboratory examinations | | |
|--------------|--------------------------------|------------------------|---|
| | Smear examination | Culture (Solid) | Drug Susceptibility testing by solid culture |
| April | 242 | 242 | 28 |
| May | 251 | 251 | 34 |
| June | 323 | 323 | 20 |
| July | 257 | 257 | 22 |
| August | 202 | 202 | 20 |
| September | 180 | 180 | 00 |
| October | 149 | 149 | 12 |
| November | 112 | 112 | 20 |
| December | 124 | 124 | 13 |
| January | 116 | 116 | 16 |
| February | 160 | 160 | 12 |
| March | 137 | 137 | 18 |
| TOTAL | 2253 | 2253 | 215 |

Table depicts data of month wise laboratory examinations carried out during the year 2016-17. A total of 2253 smears were examined, equal number of cultures were done and 215 drug susceptibility testing were performed.

TRAINING AND MONITORING SECTION

The institute is actively involved in the training of various medical and paramedical personnel who visit from Delhi and other states of our country, in implementation of strategies under Revised National Tuberculosis Control Programme (RNTCP). Several training programmes have already been conducted by the institute for doctors, Medical Students from Mulana Azad Medical College & Patel Chest and paramedical personnel (Dot Provider, STS, DEO, Lab Tech., Sr. Lab Tech., Treatment organizers and Sr. Treatment supervisors). Training is also imparted to the nursing students from Ahilaya Bai College of Nursing, Lady Reading Health School, Safdurjung Hospital, Rajkumari Amrit Kaur College of Nursing. The trainings done during the year are given as under:

TRAINING ACTIVITIES

In all during the year, 115 days of training sessions were conducted wherein 2439 personnel were trained regarding various aspects of the RNTCP which includes 90 sessions. Topics like infection control for health workers, roles and responsibilities of nursing personnel for care of TB patients and prevention against tuberculosis were also discussed in detail. The details of training are given below:

Training Programmes conducted from 01st April 16 to 31st March 17

Details of Trainings/ Sensitizations held at New Delhi TB Centre (STDC)

01st April 2016 to 31st March 2017

| S. No. | Detail of Training | Period | | Days | No. of Participants |
|--------|--|------------|------------|------|---------------------|
| 1 | Workshop to discuss the modalities to roll out the Bedaquiline conditional & expanded access programme | 07.04.2016 | 07.04.2016 | 1 | 11 |
| 2 | RNTCP sensitization of Nursing Students from RAKCON School of Nursing | 11.04.2016 | 11.04.2016 | 1 | 15 |

| | | | | | |
|----|--|------------|------------|---|----|
| 3 | Sensitization programme for medical Students of Mulana Azad Medical college under RNTCP | 18.04.2016 | 18.04.2016 | 1 | 68 |
| 4 | Workshop for DTO's for CBNAAT labs on quarterly performance for CBNAAT monitoring indicators | 25.04.2016 | 25.04.2016 | 1 | 11 |
| 5 | Sensitization programme for DOT Providers under RNTCP and review for project "SMS for sure" | 26.04.2016 | 26.04.2016 | 1 | 22 |
| 6 | Sensitization programme for Lab. Technicians under RNTCP and performance for CBNAAT monitoring indicators under RNTCP (Batch-I) | 27.04.2016 | 27.04.2016 | 1 | 18 |
| 7 | Sensitization programme for Lab. Technicians under RNTCP and performance for CBNAAT monitoring indicators under RNTCP (Batch-II) | 28.04.2016 | 28.04.2016 | 1 | 21 |
| 8 | Training programme for DTO's on guidelines for involvement of private practitioners and partnership programme under RNTCP | 29.04.2016 | 29.04.2016 | 1 | 37 |
| 9 | Continuing Medical Education (CME) programme under notification project for private practitioners for Narela District | 07.05.2016 | 07.05.2016 | 1 | 27 |
| 10 | Workshop cum review meet on various projects with DTO's and medical officers for Delhi State. | 11.05.2016 | 11.05.2016 | 1 | 31 |
| 11 | Sensitization programme for medical Students of Mulana Azad Medical college under RNTCP | 12.05.2016 | 12.05.2016 | 1 | 32 |
| 12 | Delhi State workshop cum review meet on TB/HIV | 18.05.2016 | 18.05.2016 | 1 | 36 |

| | | | | | |
|----|--|------------|------------|---|----|
| | co-ordinators with DTOs and medical officers. | | | | |
| 13 | Sensitization programme for Night shelter care takers of Narela District | 19.05.2016 | 19.05.2016 | 1 | 7 |
| 14 | Delhi State sensitization programme for Night shelter care takers for District Gulabi Bagh | 20.05.2016 | 20.05.2016 | 1 | 8 |
| 15 | Sensitization programme for Night shelter care takers of District SPM Hospital Shastri Park | 20.05.2016 | 20.05.2016 | 1 | 5 |
| 16 | Skill training programme for DRTB Counsellors on TB control under RNTCP | 23.05.2016 | 27.05.2016 | 5 | 16 |
| 17 | Continuing Medical Education (CME) programme under notification project for private practitioners of District Jhandewalan | 24.05.2016 | 24.05.2016 | 1 | 21 |
| 18 | Continuing medical education (CME) programme under notification project for private practitioners of District SPMarg Pilli Kothi | 26.05.2016 | 26.05.2016 | 1 | 14 |
| 19 | Sensitization programme for Night shelter care takers of District Sanjay Gandhi | 26.05.2016 | 26.05.2016 | 1 | 12 |
| 20 | Sensitization programme for Night shelter care takers of Jhandewalan District under RNTCP | 27.05.2016 | 27.05.2016 | 1 | 10 |
| 21 | sensitization programme for Night shelter care takers for Shastri Park District under RNTCP | 27.05.2016 | 27.05.2016 | 1 | 13 |
| 22 | Continuing medical education (CME) programme under notification project for medical officers for District -JPC Hospital & Chest Clinic | 31.05.2016 | 31.05.2016 | 1 | 20 |

| | | | | | |
|----|--|------------|------------|---|----|
| 23 | RNTCP sensitization for Nursing Students of Safdarjung college for Nursing | 01.06.2016 | 01.06.2016 | 1 | 15 |
| 24 | Sensitization programme for Night shelter care takers of District Karawal Nagar | 02.06.2016 | 02.06.2016 | 1 | 8 |
| 25 | Sensitization programme for Night shelter care takers of District Kingsway Camp Hospital | 03.06.2016 | 03.06.2016 | 1 | 10 |
| 26 | Delhi State sensitization programme for Night shelter care takers of District NDMC Poly Clinic | 03.06.2016 | 03.06.2016 | 1 | 9 |
| 27 | Sensitization programme for Night shelter care takers of District DDU Hospital | 09.06.2016 | 09.06.2016 | 1 | 12 |
| 28 | Delhi State sensitization programme of Night shelter care takers of District Lok Nayak | 10.06.2016 | 10.06.2016 | 1 | 10 |
| 29 | Sensitization programme for Night shelter care takers of District Nehru Nagar | 10.06.2016 | 10.06.2016 | 1 | 14 |
| 30 | Continuing Medical Education (CME) programme under notification project for medical officers of SBS Marg District NDMC Poly Clinic | 13.06.2016 | 13.06.2016 | 1 | 9 |
| 31 | Sensitization programme for medical students of Mulana Azad Medical college under RNTCP | 14.06.2016 | 14.06.2016 | 1 | 68 |
| 32 | Sensitization programme for Night shelter care takers of District Moti Nagar | 17.06.2016 | 17.06.2016 | 1 | 14 |
| 33 | Sensitization programme for Night shelter care takers of District NITRD | 17.06.2016 | 17.06.2016 | 1 | 7 |
| 34 | Sensitization programme for Night shelter care takers of District BSA Hospital | 18.06.2016 | 18.06.2016 | 1 | 5 |

| | | | | | |
|----|---|------------|------------|---|----|
| 35 | Sensitization programme for Night shelter care takers of District Patparganj | 24.06.2016 | 24.06.2016 | 1 | 8 |
| 36 | Sensitization programme for Night shelter care takers of District GTB | 24.06.2016 | 24.06.2016 | 1 | 12 |
| 37 | Sensitization programme for Night shelter care takers for District Ch. Des Raj Hospital | 25.06.2016 | 25.06.2016 | 1 | 10 |
| 38 | Continuing Medical Education (CME) programme under notification project of medical officers | 28.06.2016 | 28.06.2016 | 1 | 22 |
| 39 | Sensitization programme for Night shelter care takers of District BJRM Hospital | 29.06.2016 | 29.06.2016 | 1 | 25 |
| 40 | Sensitization programme for Night shelter care takers of District Shahdara | 30.06.2016 | 30.06.2016 | 1 | 8 |
| 41 | Workshop on Delhi PMDT scale up plan meeting under the RNTCP | 01.07.2016 | 01.07.2016 | 1 | 9 |
| 42 | Sensitization programme for medical Students of Mulana Azad Medical college under RNTCP | 11.07.2016 | 11.07.2016 | 1 | 20 |
| 43 | Training programme for District TB officers on daily Anti Tuberculosis treatment and 3 I's strategy under TB-HIV collaboration activities | 25.07.2016 | 26.07.2016 | 2 | 31 |
| 44 | Training programme for Medical officers on daily Anti Tuberculosis treatment and 3 I's strategy under TB-HIV collaboration activities | 04.08.2016 | 05.08.2016 | 2 | 22 |
| 45 | Training programme for Medical officers on daily Anti Tuberculosis treatment and 3 I's strategy under TB-HIV collaboration activities | 08.08.2016 | 09.08.16 | 2 | 25 |

| | | | | | |
|----|---|------------|------------|---|----|
| 46 | Sensitization programme for project SMS for sure, Case Notification programme along with RNTCP review meeting | 10.08.2016 | 10.08.2016 | 1 | 24 |
| 47 | Sensitization programme for medical Students of Mulana Azad Medical college under RNTCP | 16.08.2016 | 16.08.2016 | 1 | 68 |
| 48 | Sensitization programme regarding performance of PMDT and review under RNTCP | 17.08.2016 | 17.08.2016 | 1 | 34 |
| 49 | RNTCP sensitization of Nursing Students of Bsc (H) 4th year student from School of Nursing | 20.08.2016 | 20.08.2016 | 1 | 31 |
| 50 | Training programme for STS on daily Anti Tuberculosis treatment and 3 I's strategy under RNTCP/NACO programme | 22.08.2016 | 22.08.2016 | 1 | 18 |
| 51 | Training programme for STS on daily Anti Tuberculosis treatment and 3 I's strategy under TB-HIV collaboration activities | 23.08.2016 | 23.08.2016 | 1 | 17 |
| 52 | Training programme for TBHVs for Anti Tuberculosis treatment on daily regimen under RNTCP | 26.08.2016 | 26.08.2016 | 1 | 16 |
| 53 | Training programme for Dots Plus TB HIV supervisors on daily Anti Tuberculosis treatment and 3 I's strategy under TB-HIV collaboration activities | 29.08.2016 | 29.08.2016 | 1 | 25 |
| 54 | Training programme for Dots Plus/STLS on daily Anti Tuberculosis treatment and 3 I's strategy under TB-HIV collaboration activities | 30.08.2016 | 30.08.2016 | 1 | 20 |
| 55 | Training programme for STLS on daily Anti | 31.08.2016 | 31.08.2016 | 1 | 17 |

| | | | | | |
|----|--|------------|------------|---|----|
| | Tuberculosis treatment and 3 I's strategy under TB-HIV collaboration activities | | | | |
| 56 | Sensitization for SOSVA Non government organisation staff under RNTCP | 07.09.2016 | 07.09.2016 | 1 | 11 |
| 57 | Sensitization programme for medical students of Mulana Azad Medical college under RNTCP | 12.09.2016 | 12.09.2016 | 1 | 18 |
| 58 | RNTCP sensitization for Nursing Students for Bsc (H) 1st year students from Holy Family School for Nursing | 03.10.2016 | 03.10.2016 | 1 | 26 |
| 59 | RNTCP sensitization for Nursing Students for Bsc (H) 1st year student from Holy Family School of Nursing | 03.10.2016 | 03.10.2016 | 1 | 28 |
| 60 | Workshop cum training on financial management (account) under RNTCP programme | 07.10.2016 | 07.10.2016 | 1 | 33 |
| 61 | Sensitization programme for medical students of Mulana Azad Medical college under RNTCP | 10.10.2016 | 10.10.2016 | 1 | 70 |
| 62 | Meeting on State operational Research committee activities under RNTCP programme. | 15.11.2016 | 15.11.2016 | 1 | 19 |
| 63 | Sensitization programme for medical students of Mulana Azad Medical college under RNTCP | 17.11.2016 | 17.11.2016 | 1 | 20 |
| 64 | RNTCP sensitization for Nursing students for Bsc (H) 2nd year student from Safdarjang Hospital New Delhi | 07.12.2016 | 07.12.2016 | 1 | 24 |
| 65 | RNTCP sensitization for Nursing Students for Bsc (H) 2nd year student from Safdarjang Hospital New Delhi | 07.12.2016 | 07.12.2016 | 1 | 23 |

| | | | | | |
|----|--|------------|------------|----|-----|
| 66 | Sensitization programme on SMS sure programme under RNTCP | 09.12.2016 | 09.12.2016 | 1 | 15 |
| 67 | Sensitization programme for medical Students of Mulana Azad Medical college under RNTCP | 12.12.2016 | 12.12.2016 | 1 | 18 |
| 68 | Delhi state meeting cum elaborate Active case finding on nationwide case finding campaign on ACF | 26.12.2016 | 26.12.2016 | 1 | 27 |
| 69 | Video conference workshop on Active Case Finding for DTO's, Medical officers, STS, STLS under ECHO project | 04.01.2017 | 04.01.2017 | 1 | 87 |
| 70 | Sensitization programme for medical students of Mulana Azad Medical college under RNTCP | 16.01.2017 | 16.01.2017 | 1 | 18 |
| 71 | Training cum observatory program on Active Case Finding survey by Central TB Division under RNTCP | 19.01.2017 | 19.01.2017 | 1 | 38 |
| 72 | Inauguration for Active Case Finding (ACF) campaign via ECHO project | 23.01.2017 | 23.01.2017 | 1 | 173 |
| 73 | RNTCP Modular Training programme for Lab. Technicians working under Delhi Government Dispensaries | 23.01.2017 | 03.02.2017 | 10 | 11 |
| 74 | RNTCP sensitization for Nursing Students for Bsc (H) 1st year from Holy Family School of Nursing | 27.01.2017 | 27.01.2017 | 1 | 14 |
| 75 | Meeting on active case finding (ACF) via ECHO programme to share experiences for the campaign and suggestion under RNTCP | 01.02.2017 | 01.02.2017 | 1 | 178 |
| 76 | Nationwide video conference workshop on Active Case Finding under RNTCP | 08.02.2017 | 08.02.2017 | 1 | 152 |

| | | | | | |
|----|--|------------|------------|---|----|
| 77 | RNTCP sensitization of Nursing Students from Bsc (H) 1st year students from Holy Family School of Nursing | 03.02.2017 | 03.02.2017 | 1 | 22 |
| 78 | Training cum workshop program for VIHAN Volunteers on Active Case Finding survey programme for Red light Area under RNTCP | 13.02.2017 | 13.02.2017 | 1 | 28 |
| 79 | Training cum workshop program for VIHAN Volunteers & Area coordinators of DSACS on Active Case Finding survey program for Red light Area under RNTCP | 14.02.2017 | 14.02.2017 | 1 | 28 |
| 80 | Sensitization programme for medical students of Mulana Azad Medical college under RNTCP | 15.02.2017 | 15.02.2017 | 1 | 67 |
| 81 | Active Case finding among PLHIV in high risk group area | 20.02.2017 | 20.02.2017 | 1 | 11 |
| 82 | Training of Data Entry operators (DEO's) on new modules in Nikshay portal | 21.02.2017 | 21.02.2017 | 1 | 12 |
| 83 | Training of Data Entry operators (DEO's) on new modules in Nikshay portal | 23.02.2017 | 23.02.2017 | 1 | 11 |
| 84 | Sensitization on active case finding activity in high risk population | 23.02.2017 | 23.02.2017 | 1 | 37 |
| 85 | Sensitization on World TB Day Celebration activities and review meeting on quarterly performance of Delhi State | 08.03.2017 | 08.03.2017 | 1 | 34 |
| 86 | Review of Active case finding campaign in G.B.Road area under RNTCP programme | 14.03.2017 | 14.03.2017 | 1 | 9 |
| 87 | PMDT review meeting of Delhi State under RNTCP programme | 16.03.2017 | 16.03.2017 | 1 | 38 |

| | | | | | |
|----|---|------------|------------|------------|-------------|
| 88 | Sensitization programme for medical Students of Mulana Azad Medical college under RNTCP | 17.03.2017 | 17.03.2017 | 1 | 19 |
| 89 | RNTCP Modular Training programme for Lab. Technicians working under Delhi Government Dispensaries | 20.03.2017 | 30.03.2017 | 10 | 9 |
| 90 | Final meeting on active case finding (ACF) among CSW at GB road under RNTCP | 31.03.2017 | 31.03.2017 | 1 | 11 |
| | Total | | | 115 | 2439 |

Personnel trained/ Sensitized under RNTCP during 2016-17 of New Delhi TB Centre

| Training for various Category | No. of Training batches | No. of Days training done | No. of Participants attended training |
|----------------------------------|-------------------------|---------------------------|---------------------------------------|
| DTOs and Medical Officers | 13 | 13 | 838 |
| Senior TB Supervisors (STS) | 9 | 9 | 230 |
| Senior TB Lab Supervisors (STLS) | 6 | 6 | 183 |
| Laboratory Tech. | 4 | 29 | 61 |
| Dot Providers | 3 | 3 | 66 |
| Nursing Staff | 9 | 9 | 198 |
| Data Entry Operators (DEOs) | 2 | 2 | 23 |
| DRTB Supervisors | 9 | 9 | 77 |
| Medical Students | 11 | 11 | 488 |
| Others Staff | 24 | 24 | 275 |
| Total | 90 | 115 | 2439 |

90 training sessions were conducted at New Delhi TB Centre-STDC in 115 days and 2439 personnel, which included programme managers, Medical officers, ground level RNTCP staff (STS/STLS, lab technician, Data entry operator), Nurses, Para-medicals, PG-Students and interns from various government as well as private institutions were trained / sensitized on various aspects of RNTCP.

Analysis of Quarterly Cohort Reports

Compilation and preparation of quarterly reports (Sputum Conversion, Treatment Outcome and Programme management) of all chest clinics under RNTCP of Delhi state and their feedback is one of the major activities of STDC. The analysis of the quarterly report for each chest clinic in Delhi is carried out and the feedback, which includes necessary instructions for improvement is prepared and are discussed at the quarterly review meetings with the District TB Officers. All these feedbacks and complied reports of the state are sent to the DTOs and copies of these are also submitted to State TB Control Officer and to Central TB Division, Ministry of Health & Family Welfare.

**Chest Clinic wise performance of RNTCP in Delhi State: CASE NOTIFICATION
IN 2016 from Public Sector**

| S. No. | Chest Clinic | Population (Lakhs) | TB Patients notified from public Sector | Pulmonary | % Pulmonary | Extra Pulmonary | % Extra Pulmonary | New TB Case | % New TB Case | Previously Treated | % Previously Treated |
|--------|------------------|--------------------|---|-----------|-------------|-----------------|-------------------|-------------|---------------|--------------------|----------------------|
| 1 | Bijwasan | 9.5 | 1620 | 957 | 59 | 663 | 41 | 1247 | 77 | 373 | 23 |
| 2 | BJRM | 5.3 | 1685 | 1023 | 61 | 662 | 39 | 1313 | 78 | 372 | 22 |
| 3 | BSA Rohini | 5.7 | 2477 | 1418 | 57 | 1059 | 43 | 2059 | 83 | 418 | 17 |
| 4 | Ch Desraj Rohini | 5.7 | 1584 | 965 | 61 | 619 | 39 | 1271 | 80 | 313 | 20 |
| 5 | DDU | 11.4 | 3564 | 1943 | 55 | 1621 | 45 | 2873 | 81 | 691 | 19 |
| 6 | GTBH | 5.9 | 2213 | 1247 | 56 | 966 | 44 | 1733 | 78 | 480 | 22 |
| 7 | Gulabi Bagh | 9.8 | 703 | 383 | 54 | 320 | 46 | 573 | 82 | 130 | 18 |
| 8 | Hedgewar | 5.1 | 717 | 365 | 51 | 352 | 49 | 575 | 80 | 142 | 20 |
| 9 | Jhandewalan | 5.8 | 1290 | 748 | 58 | 542 | 42 | 913 | 71 | 377 | 29 |
| 10 | Karawal Nagar | 8.2 | 3804 | 2042 | 54 | 1762 | 46 | 3027 | 80 | 777 | 20 |
| 11 | KCC | 7.9 | 1690 | 1021 | 60 | 669 | 40 | 1337 | 79 | 353 | 21 |
| 12 | LNH | 5.3 | 863 | 448 | 52 | 415 | 48 | 674 | 78 | 189 | 22 |
| 13 | NITRD | 10 | 1959 | 1241 | 63 | 718 | 37 | 1608 | 82 | 351 | 18 |
| 14 | Malviya ngr | 5.3 | 2682 | 1644 | 61 | 1038 | 39 | 2168 | 81 | 514 | 19 |
| 15 | Moti Nagar | 6.3 | 4049 | 2339 | 58 | 1710 | 42 | 3125 | 77 | 924 | 23 |
| 16 | Narela | 6.4 | 2423 | 1566 | 65 | 857 | 35 | 1826 | 75 | 597 | 25 |
| 17 | NDMC | 7 | 2736 | 1626 | 59 | 1110 | 41 | 2139 | 78 | 597 | 22 |

| | | | | | | | | | | | |
|----|----------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 18 | Nehru Nagar | 11.4 | 5045 | 3018 | 60 | 2027 | 40 | 3959 | 78 | 1086 | 22 |
| 19 | Patparganj | 8.1 | 3518 | 2036 | 58 | 1482 | 42 | 2859 | 81 | 659 | 19 |
| 20 | R.K.Mission | 8.4 | 494 | 322 | 65 | 172 | 35 | 371 | 75 | 123 | 25 |
| 21 | RTRM | 5.5 | 1714 | 1073 | 63 | 641 | 37 | 1352 | 79 | 362 | 21 |
| 22 | SGM | 7.3 | 2180 | 1245 | 57 | 935 | 43 | 1780 | 82 | 400 | 18 |
| 23 | Shahdara | 6.3 | 2162 | 1173 | 54 | 989 | 46 | 1592 | 74 | 570 | 26 |
| 24 | SPM | 6.5 | 951 | 536 | 56 | 415 | 44 | 679 | 71 | 272 | 29 |
| 25 | JPC Hospital | 5.7 | 3534 | 1645 | 47 | 1889 | 53 | 2687 | 76 | 847 | 24 |
| | Total | 179.8 | 55657 | 32024 | 57.76 | 23633 | 42.24 | 43740 | 78.24 | 11917 | 21.76 |
| 26 | DTBA's Pavement Dwellers Project | Homeless People | 102 | 97 | 95 | 5 | 5 | 63 | 62 | 39 | 38 |

A total 179.8 lakh population was covered by 25 Chest clinics operating in Delhi and 55657 TB patients were notified from public sector during 2016. Out of which 32024 (57.5%) were pulmonary TB cases and 23,633 (42.5%) were extra pulmonary TB cases. In all, 43740 new TB cases were notified from Delhi State from all the chest clinics.

**Chest Clinic wise annual performance of RNTCP in Delhi State:
CASE NOTIFICATION IN 2016 from Private Sector**

| S. No. | Chest Clinic | TB Patients Notified from Pvt. Sector | % TB Patients Notified from Pvt. Sector from total TB cases | Total TB Pts. Notified | Annual TB Notification Rate (Public Sector) | Annual TB Notification Rate (Private Sector) | Total Annual TB Notification (Pub+ Private) |
|-----------|----------------------------------|---------------------------------------|---|------------------------|---|--|---|
| 1 | Bijwasan | 0 | 0 | 1620 | 169 | 0 | 169 |
| 2 | BJRM | 122 | 7 | 1807 | 318 | 23 | 341 |
| 3 | BSA Rohini | 10 | 0 | 2487 | 432 | 2 | 434 |
| 4 | Ch Desraj Rohini | 1135 | 42 | 2719 | 276 | 198 | 474 |
| 5 | DDU | 80 | 2 | 3644 | 311 | 7 | 318 |
| 6 | GTBH | 29 | 1 | 2242 | 372 | 5 | 377 |
| 7 | Gulabi Bagh | 49 | 7 | 752 | 71 | 5 | 76 |
| 8 | Hedgewar | 43 | 6 | 760 | 141 | 8 | 149 |
| 9 | Jhandewalan | 88 | 6 | 1378 | 220 | 15 | 235 |
| 10 | Karawal Nagar | 0 | 0 | 3804 | 462 | 0 | 462 |
| 11 | KCC | 56 | 3 | 1746 | 213 | 7 | 220 |
| 12 | LNH | 231 | 21 | 1094 | 164 | 44 | 208 |
| 13 | LRS | 1416 | 42 | 3375 | 196 | 141 | 337 |
| 14 | Malviya ngr | 381 | 12 | 3063 | 507 | 72 | 579 |
| 15 | Moti Nagar | 784 | 16 | 4833 | 637 | 123 | 760 |
| 16 | Narela | 35 | 1 | 2458 | 381 | 6 | 387 |
| 17 | NDMC | 510 | 16 | 3246 | 389 | 72 | 461 |
| 18 | Nehru Nagar | 266 | 5 | 5311 | 442 | 23 | 465 |
| 19 | Patparganj | 144 | 4 | 3662 | 435 | 18 | 453 |
| 20 | R.K.Mission | 1052 | 68 | 1546 | 58 | 124 | 182 |
| 21 | RTRM | 201 | 10 | 1915 | 312 | 37 | 349 |
| 22 | SGM | 32 | 1 | 2212 | 299 | 4 | 303 |
| 23 | Shahdara | 79 | 4 | 2241 | 344 | 13 | 357 |
| 24 | SPM | 97 | 9 | 1048 | 147 | 15 | 162 |
| 25 | JPC Hospital | 209 | 6 | 3743 | 617 | 36 | 653 |
| | Total | 7049 | 11.56 | 62706 | 7913 | 998 | 8911 |
| 26 | DTBA's Pavement Dwellers Project | — | — | 102 | 25 | — | 25 |

Case notification from Private sector across Delhi State is a major concern under RNTCP. During 2016, 7049 tuberculosis cases were notified from private sector across all the 25 chest clinics of Delhi State. About 12% cases were detected from the private sector of the total TB cases notified during 2016 from Delhi State from the total TB cases. Annual case notification rate was 357 of which 317 was from public sector and 40 was from private sector.

**Chest Clinic-wise annual performance of RNTCP in Delhi State :
Diagnosed cases (Clinical & Microbiological in 2016)**

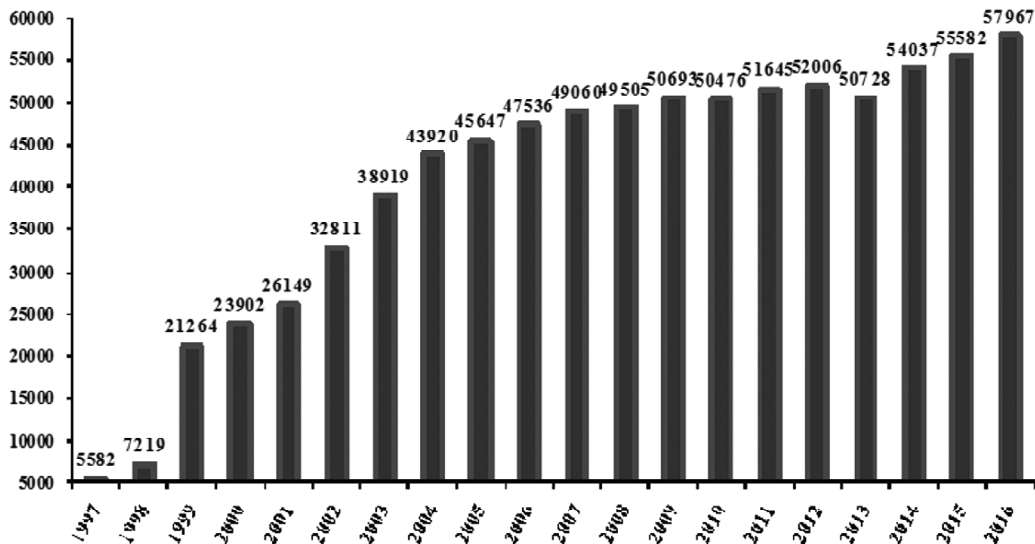
| S. No. | Chest Clinic | Micr- biological Confirmed | % Micr- biological Confirmed | Clinically Diagnosed | % Clinically Diagnosed | Pediatric TB | % Pediatric TB |
|-----------|----------------------------------|----------------------------------|------------------------------------|-------------------------|------------------------------|-----------------|----------------------|
| 1 | Bijwasan | 677 | 42 | 943 | 58 | 150 | 9 |
| 2 | BJRM | 680 | 40 | 1005 | 60 | 177 | 11 |
| 3 | BSA Rohini | 809 | 33 | 1668 | 67 | 278 | 11 |
| 4 | Ch Desraj Rohini | 586 | 37 | 998 | 63 | 232 | 15 |
| 5 | DDU | 1273 | 36 | 2291 | 64 | 445 | 12 |
| 6 | GTBH | 818 | 37 | 1395 | 63 | 272 | 12 |
| 7 | Gulabi Bagh | 253 | 36 | 450 | 64 | 88 | 13 |
| 8 | Hedgewar | 274 | 38 | 443 | 62 | 87 | 12 |
| 9 | Jhandewalan | 494 | 38 | 796 | 62 | 172 | 13 |
| 10 | Karawal Nagar | 1240 | 33 | 2564 | 67 | 491 | 13 |
| 11 | KCC | 665 | 39 | 1035 | 61 | 155 | 9 |
| 12 | LNH | 267 | 31 | 596 | 69 | 135 | 16 |
| 13 | LRS | 871 | 44 | 1088 | 56 | 188 | 10 |
| 14 | Malviya ngr | 1136 | 42 | 1546 | 58 | 310 | 12 |
| 15 | Moti Nagar | 1426 | 35 | 2623 | 65 | 467 | 12 |
| 16 | Narela | 992 | 41 | 1431 | 59 | 233 | 10 |
| 17 | NDMC | 1086 | 40 | 1650 | 60 | 271 | 10 |
| 18 | Nehru Nagar | 1905 | 38 | 3140 | 62 | 539 | 11 |
| 19 | Patparganj | 904 | 26 | 2614 | 74 | 466 | 13 |
| 20 | R.K.Mission | 235 | 48 | 259 | 52 | 67 | 14 |
| 21 | RTRM | 842 | 49 | 872 | 51 | 144 | 8 |
| 22 | SGM | 592 | 27 | 1588 | 73 | 278 | 13 |
| 23 | Shahdara | 697 | 32 | 1465 | 68 | 304 | 14 |
| 24 | SPM | 350 | 37 | 601 | 63 | 122 | 13 |
| 25 | JPC Hospital | 838 | 24 | 2696 | 76 | 606 | 17 |
| | Total | 19910 | 36.92 | 35757 | 63.08 | 6677 | 12.12 |
| 26 | DTBA's Pavement Dwellers Project | 85 | 83 | 17 | 17 | — | — |

As per latest treatment guideline under RNTCP in 2016, the treatment indicators have been classified as microbiologically confirmed TB case i.e. presumptive TB patient with biological specimen positive for AFB or positive for MTB on culture or positive for TB through Quality Assured Rapid Diagnostic molecular test. In 2016, a total of 19910 (37%) microbiological confirmed TB cases were put on treatment from all the 25 chest clinics of Delhi.

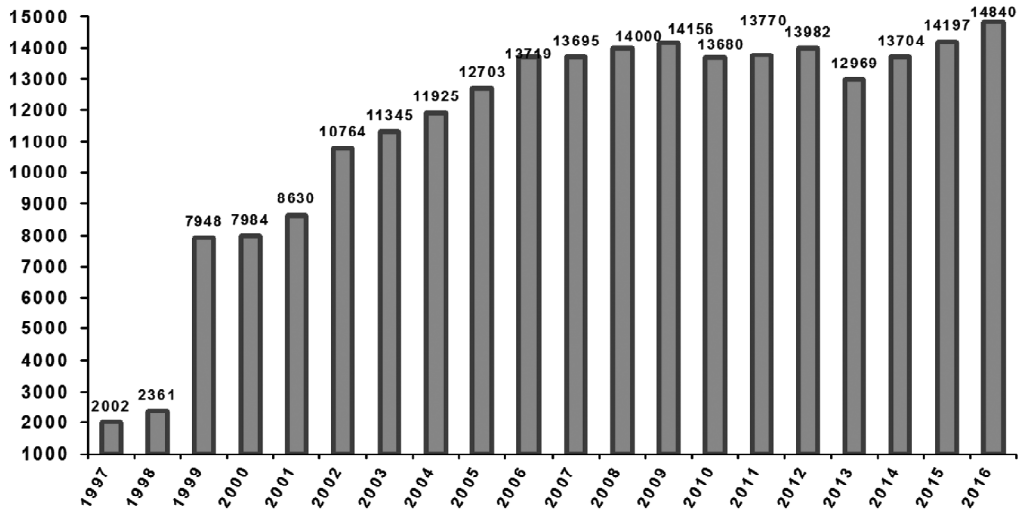
Clinically diagnosed TB case wherein a presumptive TB case who is not microbiologically confirmed but diagnosed active TB by a clinician on the basis of X-rays, histopathology or clinical signs. In 2016, 35757 (63%) were clinically diagnosed as TB cases from all the 25 chest clinics of Delhi State.

Pediatric TB case which is based on the presence of abnormalities consistence with TB on radiography, history of exposure to an infections case, evidence of TB infection (Positive TST) and clinical findings suggestive of TB in event of negative or unavailable microbiological results. In 2016, a total of 6677 (12%) pediatric TB cases were diagnosed from all the 25 chest clinics of Delhi State. Thus, in all a total of 62344 tuberculosis cases were diagnosed from all the 25 chest clinics of Delhi State during 2016.

Revised National TB Control Programme-DELHI Yearly Total cases put on Treatment

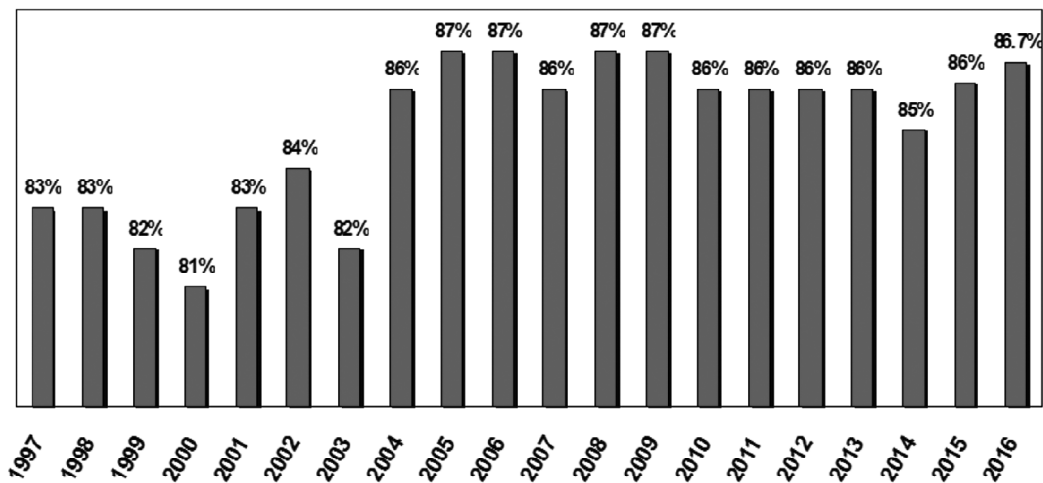


Revised National TB Control Programme-DELHI
Yearly new sputum Positive cases put on Treatment

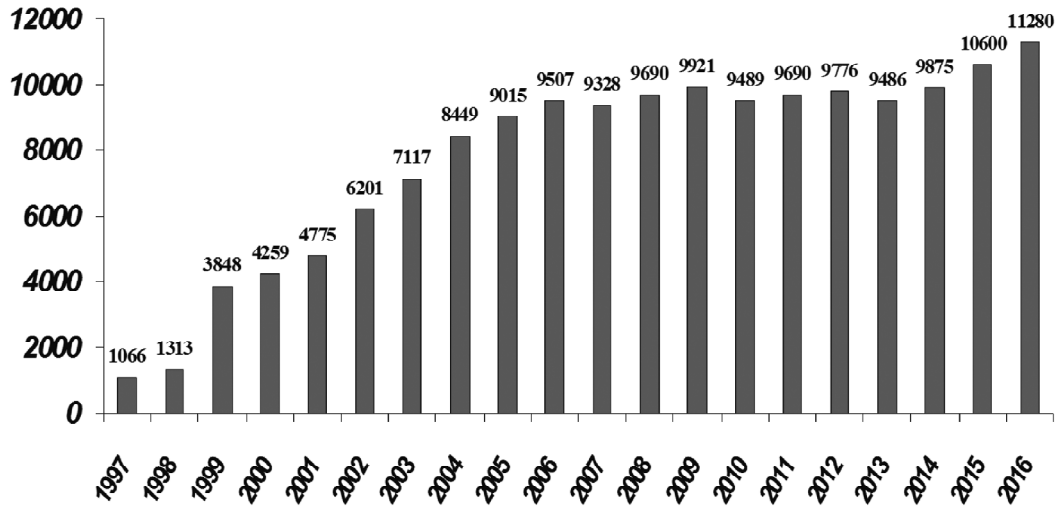


Revised National TB Control Programme-DELHI

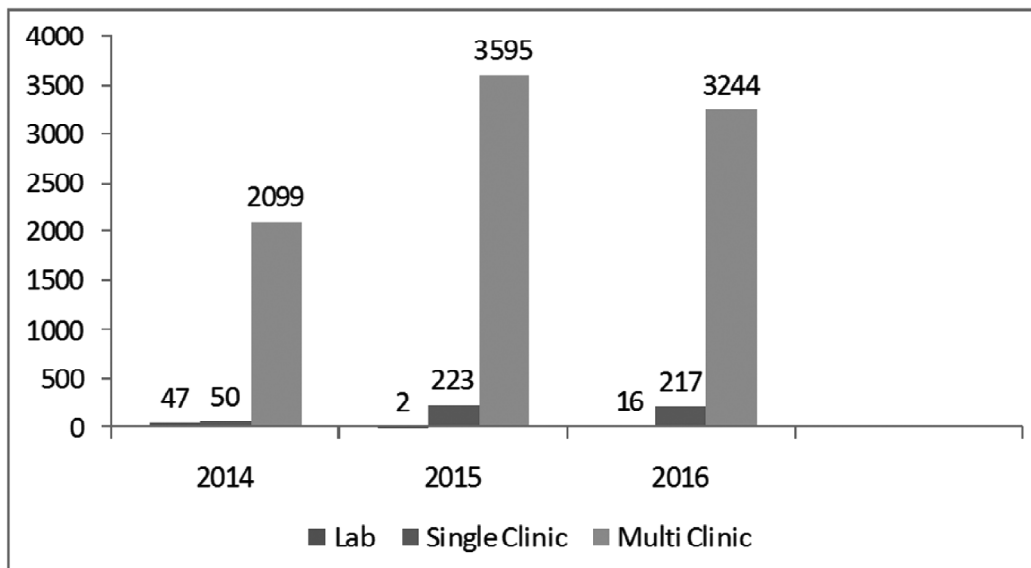
Success Rate of new sputum Positive patients



NUMBER OF LIVES SAVED FROM DEATH



Trend (last 3 yrs) of break-up of patients notified from private sector



SUPERVISORY ACTIVITIES

Monitoring and evaluation is an important tool for RNTCP. As State TB Training & Demonstration Centre (STDC), the faculty of the Centre is actively involved in monitoring and supervision of the TB control programme at national and state level.

(A) State Internal Evaluation

The internal evaluation of all the chest clinics is an important activity under the RNTCP where in all aspects of the clinic records, staff, drug stores, microscopic activities, facilities and financial aspects are evaluated in detail. Internal evaluation is organized by State TB Control Department. Director of STDC or his nominee is the member of internal evaluation team for all the chest clinics of Delhi. The internal evaluation is carried out in two chest clinics of the state in every quarter. During the year 2016-17, faculty from NDTB Centre participated in evaluation of chest clinic as per the following schedule:

| Faculty | Date of Visits | Chest Clinic |
|-------------------|---|--------------------------|
| Dr. Shanker Matta | 18 th to 21 st April, 2016 | Shahdara Chest Clinic |

(B) Supervisory Visits to Chest Clinics

Monitoring and supervision activities are implemented to ensure that activities are conducted as planned, and that the data recorded and reported is accurate and valid. It provides a feedback system for remedial action to improve performance and in turn improve the programme indicators. It also serves as a tool for continuous “on the job sensitization” of the staff and increase the involvement and commitment of the higher level authorities, both at the state and the district level.

During the year 2016-17, the following Supervisory visits were made by the doctors who gave their inputs to the improve programme performance under RNTCP:

| Faculty | Date of Visits | Chest Clinic |
|-------------------|-----------------------|----------------------------|
| Dr. Shanker Matta | 11/4/2016 | RKM Chest Clinic |
| Dr.K.K.Chopra | 18/6/2016 | BSA Chest Clinic |
| Dr.K.K.Chopra | 25/6/2016 | Ch. Des Raj Chest Clinic |
| Dr. K.K. Chopra | 29/6/2016 | BJRM Chest Clinic |
| Dr. Shanker Matta | 13/7/2016 | Shastri Park Chest Clinic |
| Dr. Shanker Matta | 14/7/2016 | Kingsway Camp Chest Clinic |
| Dr. Shanker Matta | 27/9/2016 | Bijwasan Chest Clinic |
| Dr.K.K.Chopra | 24/1/2017 | BSA Chest Clinic |
| Dr. K.K.Chopra | 24/1/2017 | Ch. Des Raj Chest Clinic |
| Dr. Shanker Matta | 30/1/2017 | Hedgewar Chest Clinic |
| Dr. Shanker Matta | 30/1/2017 | Shahdara Chest Clinic |
| Dr. K.K.Chopra | 31/1/2017 | BJRM Chest Clinic |
| Dr. K.K. Chopra | 29/3/2017 | Ch. Des Raj Chest Clinic |

LIBRARY AND INFORMATION SERVICES

The website of New Delhi TB Centre (www.ndtbc.com) has information about various facilities and activities undertaken by the Centre along with list of publications from the institute since 1940. The Centre maintains a library which has 660 books on various aspects related to tuberculosis and chest diseases. In addition, it has various National and International journals. The library renders its services to the students of MAMC and V.P.Chest Institute as well as the faculty of the Centre.

ADMINISTRATION

(A) VISITORS TO NDTB CENTRE

1. Members of Board of Directors of FIND headquarters, Geneva visited NDTB Centre on 13th April 2016. Dr. K.K. Chopra, Director presented the activities of NDTB Centre and Dr. M Hanif, Microbiologist briefed about the laboratory activities. This was followed by discussion on role of FIND in establishing laboratory network in India and its impact on TB situation. They also made a visit to the laboratory.
2. A team of audit visited lab of NDTB Centre for review of paediatric CBNAAT project on 25th April 2016. Activities of the project were audited.
3. A team of Global Fund for audit of its activities in India visited Delhi state on 26th April 2016. All the activities and records of STDC and IRL were audited and discussed.
4. A team from FIND head office in Geneva visited the laboratory of New Delhi TB Centre on 30th May 2016. The team reviewed the laboratory activities in technical collaboration with FIND.
5. Two member team from NRL – NITRD comprising of One Microbiologist and One Laboratory Technician visited laboratory for three days for Annual On- Site Evaluation from 15th – 17th June, 2016.
6. A team from NRL – NITRD, Mehrauli comprising of two Microbiologist visited laboratory on 9th September, 2016 for laboratory evaluation.
7. Dr. Paul Arthu Jensen from Centre for Global Health visited the laboratory of the Centre on 20th October 2016. During the visit he reviewed about bio safety in laboratory and gave recommendations on infection control in the laboratory.
8. Two days laboratory assessment visit on 23rd – 24th November, 2016 was carried out by Dr. Sanjeev Saini, Microbiologist from

FIND.

9. Two microbiologists and two Lab. Technician of Jamia Medical College visited laboratory of NDTB Centre on 27th Feb, 2017. They were briefed about the processes of case detection and Drug Sensitivity testing procedures adopted under RNTCP.
10. A team of NABL assessors visited laboratory of NDTB Centre for conducting Pre assessment on accreditation of the laboratory on 3rd and 4th February, 2017. They assessed infrastruction and Human Resources of the laboratory and inspected the SOPs and calibration of laboratory equipments. They suggested some non-conformities to be completed in one month before visit by NABL accreditation team.
11. A team of Afghanistan TB Officials accompanied by Dr. Sundari from WHO visited laboratory on 6th March, 2017 for understanding TB diagnosis and control programme under RNTCP.
12. A team of international and national parliamentarians visited NDTB Centre on 7th March 2017. The visit was organised by The Union. The purpose of the visit was to familiarize the honourable parliamentarians with advanced TB diagnostic and treatment services available in India and to familiarize them with the basic diagnostic and treatment facilities available at the district and sub –district level. Dr. K.K. Chopra, Director and Dr. M. Hanif, Microbiologist briefed them about the structure of TB control in India and laboratory diagnostic facilities available at the state level.

(B) GRANTS

- i. During the year 2016-17, the Government of India, Ministry of Health & Family Welfare released the annual recurring grant-in-aid (Salaries) of Rs. 310 Lacs and grant-in-aid (General) of Rs. 37.34 Lacs.
- ii. Rs. 10,000/- was provided by Tuberculosis Association of India as annual grant.

(C) DONATIONS

Donations received (through TAI) for medicines

| | | |
|---|---|--------------|
| - | (Anar Singh Chanchal Singh Memorial Fund | Rs. 12,490/- |
| - | Smt. Ram Piyari Dutt Memorial Fund | |
| - | Donation, Interest on FDR and saving Bank Account | Rs. 41,545/- |
| | Total | Rs. 54,035/- |

(D) RIGHT TO INFORMATION ACT 2005

During 2016-17, 46 applications have been received under RTI Act, 2005. The table gives the details of applications received and disposed.

Table: Details of yearly Receipts & Disposal of RTI applications for 2016-17

| S. No. | Month & Year | RTI Applications | | | Appeal | | | Amount of Fee Paid |
|--------|--------------|----------------------------------|----------------------------------|------------|-------------------------|-------------------------|------------|--------------------|
| | | No. of RTI applications received | No. of RTI applications disposal | In Process | No. of Appeals received | No. of Appeals disposal | In Process | |
| 1 | April, 16 | 11 | 11 | - | - | - | - | - |
| 2 | May, 16 | 5 | 5 | - | - | - | - | - |
| 3 | June, 16 | 1 | 1 | - | - | - | - | - |
| 4 | July, 16 | 11 | 11 | - | - | - | - | - |
| 5 | August, 16 | 4 | 4 | - | - | - | - | - |
| 6 | Sept, 16 | 1 | 1 | - | - | - | - | - |
| 7 | Oct, 16 | 2 | 2 | - | - | - | - | - |
| 8 | Nov, 16 | 5 | 5 | - | - | - | - | - |
| 9 | Dec, 16 | 3 | 3 | - | - | - | - | - |
| 10. | Jan, 17 | 2 | 2 | - | - | - | - | - |
| 11. | Feb, 17 | 1 | 1 | - | - | - | - | - |
| Total | 2016-17 | 46 | 46 | - | - | - | - | - |

SUMMARY OF ACTIVITIES OF NEW DELHI TB CENTRE

An insight of annual statistics of the Center are as follows:

Outpatient Attendance

| | |
|------------------------------|-------|
| New outpatients attendance | 10157 |
| Revisits | 9895 |
| Total outpatients attendance | 20052 |

DOT Centre Attendance

| | |
|---|-----|
| New Patient put on DOTS at NDTB DOT Centre | 17 |
| Total Patients (2015-16) put on DOTS at NDTB DOT Centre | 455 |

Special Clinics Attendance

| | |
|--|-----|
| Special clinics (TB and Diabetes, HIV and TB, COAD and Tobacco Cessation Clinic- Total New+old cases | 562 |
|--|-----|

Laboratory Examinations

| | |
|------------------------------------|-------|
| Total laboratory examinations | 35782 |
| Total Smear Examination | 35782 |
| 3. Culture Examination | |
| (a) Solid Culture | 5725 |
| (b) Liquid Culture | 4860 |
| 4. Drug susceptibility test | |
| (a) by solid culture method | 215 |
| (b) by Liquid Culture Method | 1062 |
| (c) by LPA | 5066 |

| | |
|-------------------|-------|
| 5 CBNAATa. | |
| Examinations | 13363 |

Tuberculin skin tests

| | |
|---|------|
| Total Tuberculin skin tests done | 8425 |
| Tests read | 7451 |
| Reactors (>10mm) | 3352 |
| Non-reactors (<10mm) | 4099 |

Radiological Examinations

| | |
|---------------------------|------|
| Radiological Examinations | 1561 |
|---------------------------|------|

Trainings/IRL Visits/Publications

| | |
|---|------|
| Personnel trained | 2439 |
| Supervision and Monitoring /Internal Evaluation of Chest Clinics | 14 |
| IRL Visits to chest clinics for EQA | 21 |
| Presentations of papers in conference | 6 |
| Research and Publications | 7 |

THAKUR, VAIDYANATH AIYAR & CO.
Chartered Accountants
New Delhi, Mumbai, Kolkata, Chennai
Patna and Chandigarh

221-223, Deen Dayal Marg, New Delhi-02
Phones : 91 - 11-23236958-60, 23237772
Fax : 91 - 11-23230831
Email : tvandeca@gmail.com
: tvande@rediffmail.com

Independent Auditor's Report

To the Members of
New Delhi Tuberculosis Center,

We have audited the accompanying financial statements of **New Delhi Tuberculosis Center** which comprise the Balance Sheet as at March 31, 2017, the Statement of Income and Expenditure for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position and financial performance of the Centre in accordance with the Accounting Standards, to the extent applicable, issued by the Institute of Chartered Accountants of India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentations of the financial statements that gives a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Centre in preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion and to the best of our information and according to the explanations given to us, the financial statements read with accounting policies and Notes given in Schedule 17 give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- a) in the case of the Balance Sheet, of the state of affairs of the Centre as at March 31, 2017 and
- b) in the case of the Statement of Income and Expenditure, of the Surplus for the year ended on that date;

Report on Other Legal and Regulatory Requirements

- a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;

- b) In our opinion, proper books of account as required by law have been kept by the Centre so far as appears from our examination of those books;
- c) The Balance Sheet , Statement of Income and Expenditure dealt with by this Report are in agreement with the books of account;
- d) In our opinion, the Balance Sheet, Statement of Income and Expenditure comply with the Accounting Standards, to the extant applicable, issued by the Institute of Chartered Accountants of India.

For Thakur, Vaidyanath Aiyar & Co.
Chartered Accountants
FRN: 000038N

(Anil K. Thakur)
Partner
M. No. : 088722

Place: New Delhi
Date : 28.09.2017

NEW DELHI TUBERCULOSIS CENTRE
BALANCE SHEET AS AT 31ST MARCH, 2017

| | Schedule | As at 31.03.2017 | As at 31.03.2016 |
|-------------------------------------|----------|---------------------|---------------------|
| | | (Rs.) | (Rs.) |
| <u>SOURCES OF FUNDS:</u> | | | |
| Assets Fund | 1 | 3,372,606 | 3,518,730 |
| Earmarked Funds | 2 | 1,312,350 | 1,392,596 |
| Current Liabilities and Provisions | 3 | 4,793,769 | 6,094,812 |
| Accumulated Deficit / Surplus | | 310,593 | 194,928 |
| | | 9,789,318 | 11,201,066 |
| <u>APPLICATION OF FUNDS:</u> | | | |
| Fixed Assets | 4 | 3,372,606 | 3,518,730 |
| Current Assets, Loans & Advances | 5 | 6,270,405 | 7,567,879 |
| TDS recoverable | | 146,307 | 114,457 |
| | | 9,789,318 | 11,201,066 |

Accounting Policies and Notes **17**
to the accounts

Schedule Nos.1 to 17 form an integral part of the Accounts

As per our report of even date attached
For Thakur Vaidyanath Aiyer & Co.
Chartered Accountants

**NEW DELHI TUBERCULOSIS CENTRE
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR
ENDED 31ST MARCH 2017**

| | Schedule | For the year 2016-17 | For the year 2015-16 |
|---|----------|-------------------------|-------------------------|
| | | (Rs.) | (Rs.) |
| <u>INCOME</u> | | | |
| Recurring Grant from Govt.of India : | | | |
| Grant-in-aid Salaries | | 31,000,000 | 30,400,000 |
| Grant-in-aid General | | 3,734,000 | 3,300,000 |
| Maintenance Grants from TAI | | 10,000 | 10,000 |
| Fees from Patients | 6 | 291,900 | 452,095 |
| Misc. Receipts: | | | |
| - Interest income | | 152,196 | 353,188 |
| - Other receipts | | 1,270 | 30 |
| Total | | 35,189,366 | 34,515,313 |
| <u>EXPENDITURE</u> | | | |
| Salary & Other Staff expenditure | 7 | 30,880,412 | 30,319,752 |
| Administrative Expenses | 8 | 3,911,053 | 3,553,712 |
| Expenses on X-Ray Films, Drugs & Medicines and Lab. Consumable | 9 | 282,236 | 416,186 |
| Total | | 35,073,701 | 34,289,650 |
| (Deficit)/Surplus for the year | | 115,665 | 225,663 |
| Less / (Add) : Balance as per last account | | 194,928 | (30,735) |
| | | 310,593 | 194,928 |

Accounting Policies and Notes **17**
to the Accounts

Schedule Nos.1 to 17 form an integral part of the Accounts

As per our report of even date attached
For Thakur Vaidyanath Aiyer & Co.
Chartered Accountants

Accountant
(S.K. Saini)
Director
(Dr.K.K.Chopra)
Chairman
(Dr. L.S. Chauhan)

(Anil K. Thakur)
Partner
M. No. 088722

Place : New Delhi
Date : 28.09.2017

**NEW DELHI TUBERCULOSIS CENTRE
RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR
ENDED MARCH 31, 2017**

| | | Schedule For the Year 2016-17 | For the Year 2015-16 |
|--|-----------|----------------------------------|-------------------------|
| RECEIPTS | | Rs. | |
| Opening Cash & Bank Balances | 5 | 7,396,262 | 6,420,045 |
| Grants : | | | |
| Recurring Grant-in Aid from Govt. of India | | | |
| - Grant-in-aid Salaries | | 31,000,000 | 30,400,000 |
| - Grant-in-aid General | | 3,734,000 | 3,300,000 |
| Maintenance Grants from TAI | | 10,000 | 10,000 |
| Fee from Patients | 6 | 291,900 | 444,545 |
| Receipts from TAI | 10 | 2,093,000 | 2,062,363 |
| Other Receipts | 11 | 520,197 | 1,813,428 |
| Total | | 45,045,359 | 44,450,381 |
| PAYMENTS | | | |
| Staff Expenditure | 12 | 30,764,262 | 30,250,711 |
| Administrative expenses | 13 | 4,036,912 | 3,626,918 |
| X-Ray films, Drugs and Med. & Lab. Consumables | 14 | 277,795 | 491,757 |
| Payments from TAI Fund | 15 | 2,093,000 | 2,062,363 |
| Other Payments | 16 | 1,753,878 | 622,370 |
| Closing Cash & Bank Balances | 5 | 6,119,512 | 7,396,262 |
| Total | | 45,045,359 | 44,450,381 |

Policies and Notes to the Accounts **17**

Schedule Nos.1 to 17 form an integral part of the Accounts

As per our report of even date attached

For Thakur Vaidyanath Aiyer & Co.

Chartered Accountants

Accountant

(S.K. Saini)

Director

(Dr.K.K.Chopra)

Chairman

(Dr. L.S. Chauhan)

(Anil K. Thakur)

Partner

M. No. 088722

Place : New Delhi

Date : 28.09.2017

NEW DELHI TUBERCULOSIS CENTRE

Schedule- 1 ASSETS FUND

| | As at 31.03.17 | As at 31.03.16 |
|---|---------------------------|---------------------------|
| | (Rs.) | (Rs.) |
| Balance as Per last A/c | 3,518,730 | 4,666,162 |
| Add : Additions during the year for Cost of Assets Acquired (refer Schedule-4) | 305,056 | 482,537 |
| | 38,23,786 | 5,148,699 |
| Less: | | |
| Disposals during the year | - | 1,161,239 |
| Depreciation for the year (refer Schedule - 4) | 451,180 | 468,730 |
| Total | 3,372,606 | 3,518,730 |

Schedule - 2

| | Unutilised Balance as on 01.04.16 (Rs.) | Received / Transferred during the year (Rs.) | Interest (Rs.) | Total (Rs.) | Utilised during the year (Rs.) | Unutilised Balance as on 31.03.17 (Rs.) |
|------------------------------|---|--|-------------------|------------------|---|---|
| <u>EARMARKED FUND</u> | | | | | | |
| General Donations | 336,073 | 10,000 | 41,720 | 387,793 | - | 387,793 |
| Auditorium fund | 114,893 | 10,000 | - | 124,893 | 123,885 | 1,008 |
| For Poor Patients | 56,566 | - | - | 56,566 | - | 56,566 |
| For Medicines | 303,410 | 12,490 | - | 315,900 | 33,953 | 281,947 |
| Staff Welfare Fund | 83,054 | - | 3,382 | 86,436 | - | 86,436 |
| Research Fund | 498,600 | - | - | 498,600 | - | 498,600 |
| Total | 1,392,596 | 32,490 | 45,102 | 1,470,188 | 157,838 | 1,312,350 |

NEW DELHI TUBERCULOSIS CENTRE

| | As at 31.03.17 | As at 31.03.16 |
|---|---------------------------|---------------------------|
| | <u>(Rs.)</u> | <u>(Rs.)</u> |
| <u>Schedule- 3</u> | | |
| <u>Current Liabilities & Provisions</u> | | |
| Advance Fee & Lab Charges | 3,160 | 3,160 |
| Salary & Allowances | 2,712,532 | 2,478,599 |
| Bonus | 178,870 | 89,653 |
| Other Payable | 32,667 | 61,968 |
| Sundry Creditors | 17,415 | 121,897 |
| Provision for Contribution to Gratuity Fund | 205,000 | 412,000 |
| Security Deposit | 29,330 | 22,344 |
| Unspent Project Balances : | | |
| Unspent Project Fund -SMS for Sure | 929,153 | 1,573,953 |
| Unspent Project Fund -Acceleration of TB notification | 80,921 | 221,075 |
| Unspent Project Fund -Framework of Tb care in prison | 241,500 | 241,500 |
| Unspent Project Fund -Genetic Polymprphism | - | 30,000 |
| Unspent Project Fund -Xpert Ultra | 363,221 | 838,663 |
| | <u>4,793,769</u> | <u>6,094,812</u> |
| Total | | |

NEW DELHI TUBERCULOSIS CENTRE

Schedule - 4

Fixed Assets

| | WDV | Additions | Disposals | Balance | Depreciation | Net |
|--|-------------------|-----------------|-----------|-------------------|----------------|---------------------------|
| | as on 01.04.16 | during the year | - | as on 31.03.17 | for the year | balance on 31.03.17 |
| | (Rs.) | (Rs.) | (Rs.) | (Rs.) | (Rs.) | (Rs.) |
| Building | 245,966 | - | - | 245,966 | 24,597 | 221,369 |
| Electrical Installations and Sanitary Fittings | 796,062 | - | - | 796,062 | 79,606 | 716,456 |
| Furniture & Fittings | 1,081,926 | 292,485 | - | 1,374,411 | 125,415 | 1,248,996 |
| Lab. Equipments | 637,235 | - | - | 637,235 | 95,585 | 541,650 |
| X-ray Equipments | 559,384 | - | - | 559,384 | 83,908 | 475,476 |
| Other Equipments | 18,748 | - | - | 18,748 | 2,812 | 15,936 |
| Computer | 18,926 | 12,571 | - | 31,497 | 15,127 | 16,370 |
| Books | 126 | - | - | 126 | 76 | 50 |
| Vehicle | 160,357 | - | - | 160,357 | 24,054 | 136,303 |
| Total | 3,518,730 | 305,056 | - | 3,823,786 | 451,180 | 3,372,606 |

NEW DELHI TUBERCULOSIS CENTRE

| | <u>As at 31.03.17</u> | <u>As at 31.03.16</u> |
|---|---------------------------|---------------------------|
| | (Rs.) | (Rs.) |
| <u>Schedule- 5</u> | | |
| <u>Current Assets & Loans and Advances</u> | | |
| Stocks and Stores at cost : | | |
| (as valued and certified by the Management) | | |
| -X-Ray films and chemicals | 26,484 | 4,613 |
| -Laboratory stains, chemicals glassware | 88,409 | 1,18,315 |
| Festival Advance | 36,000 | 46,800 |
| Universal Comfort Products Ltd | - | 1,889 |
| Sub Total - A | <u>150,893</u> | <u>171,617</u> |
| <u>Cash and Bank Balances:</u> | | |
| Cash in hand | 2,870 | 290 |
| (as certified by the Management) | | |
| In Current A/c with BOI | 4,826,191 | 6,081,388 |
| In Saving Bank | | |
| - with BOI (Earmarked donation fund) | 1,204,015 | 1,231,530 |
| - with BOI (Staff Welfare Fund) | 86,436 | 83,054 |
| Sub Total - B | <u>6,119,512</u> | <u>7,396,262</u> |
| Gross Total - A+B | <u>6,270,405</u> | <u>7,567,879</u> |

NEW DELHI TUBERCULOSIS CENTRE

| | Advance Fee as on 01.04.16 | Fee Received During the year | Add: Advance fee adjusted During the year | Fee for the year 2016-17 | Advance as on 31.03.2017 |
|---|---|---|--|---|---|
| | (Rs.) | (Rs.) | (Rs.) | (Rs.) | (Rs.) |
| <u>Schedule-6</u> | | | | | |
| <u>Advance Fees for patients</u> | | | | | |
| Laboratory charges | 3,160 | 291,900 | - | 291,900 | 3,160 |
| X-ray charges | - | - | - | - | |
| Total | 3,160 | 291,900 | - | 291,900 | 3,160 |

| | For the year 2016-17 | For the year 2015-16 |
|--|---------------------------------|---------------------------------|
| | (Rs.) | (Rs.) |
| <u>Schedule- 7</u> | | |
| <u>Salary & Other Staff Expenditure :</u> | | |
| Salaries | 9,849,117 | 10,850,949 |
| Dearness Allowance | 12,450,805 | 11,142,854 |
| House Rent Allowance | 2,866,947 | 2,774,027 |
| Transport Allowance | 1,792,848 | 1,720,282 |
| Other Allowances | 666,545 | 600,186 |
| Children's Education Allowances | 333,700 | 343,252 |
| Contribution to Provident Fund | 2,212,268 | 2,152,950 |
| Contribution to Gratuity Fund | 205,000 | 412,000 |
| Bonus | 355,924 | 89,653 |
| Travel Concession | 147,258 | 233,599 |
| Total | 30,880,412 | 30,319,752 |

NEW DELHI TUBERCULOSIS CENTRE

| | For the year 2015-16 | For the year 2014-15 |
|--|---------------------------------|---------------------------------|
| | <u>(Rs.)</u> | <u>(Rs.)</u> |
| <u>Schedule- 8</u> | | |
| <u>Administrative Expenses :</u> | | |
| Wages to Contractual staff | 871,542 | 823,625 |
| Wages to Temporary staff | - | 95,288 |
| Security Charges | 707,448 | 533,868 |
| Staff Uniform | 13,025 | 10,834 |
| Medical Aid to staff | 263,389 | 248,468 |
| Travelling Expenses & Conveyance | 28,104 | 48,865 |
| Repairs to Furniture and equipment | 121,535 | 85,244 |
| Repairs to X-ray equipments | 41,375 | 36,042 |
| Repairs to Laboratory equipment | 95,665 | 34,738 |
| Telephone Expenses | 130,658 | 131,290 |
| Printing & Stationery | 92,399 | 90,360 |
| Postage | 5,615 | 3,825 |
| Laundry Charges | 5,610 | 3,298 |
| Books & Journals | 860 | - |
| Maintenance of car | 40,294 | 39,184 |
| Audit Fee | 24,780 | 24,255 |
| Miscellaneous expenses | 107,953 | 95,393 |
| Building maintenance expenses-civil | 803,263 | 546,359 |
| Building maintenance expenses-electrical | 179,400 | - |
| Annual day expenses | 38,478 | 195,799 |
| Legal expense | 19,800 | 22,550 |
| Linen and bedding | - | 1,890 |
| Cost of Assets Acquired out of Grant | 319,860 | 482,537 |
| Fund Fund & Furniture Repairs etc | | |
| Total | <u>3,911,053</u> | <u>3,553,712</u> |

NEW DELHI TUBERCULOSIS CENTRE

| | | For the year 2016-17 | For the year 2015-16 |
|--|--------------|---------------------------------|---------------------------------|
| | | <u>(Rs.)</u> | <u>(Rs.)</u> |
| <u>Schedule- 9</u> | | | |
| <u>X-Ray Films ,Drugs and Medicines & Lab. Consumable</u> | | | |
| Drugs and Medicines | | | |
| Balance as on 1.4.2016 | - | | |
| Add : Purchased during the year | 44,837 | | |
| Less : Closing Stock | - | 44,837 | 48,150 |
| X-Ray Films and Chemicals | | | |
| Balance as on 1.4.2016 | 4,613 | | |
| Add : Purchased during the year | 105,028 | | |
| Less : Closing Stock | 26,484 | 83,157 | 1,01,843 |
| Lab. Stains, Chemicals & Glassware | | | |
| Balance as on 1.4.2016 | 118,315 | | |
| Add : Purchased during the year | 124,336 | | |
| Less : Closing Stock | 88,409 | 154,242 | 266,193 |
| Materials Consumed | Total | 282,236 | 416,186 |

NEW DELHI TUBERCULOSIS CENTRE

| | For the year 2016-17 | For the year 2015-16 |
|--|---------------------------------|---------------------------------|
| | (Rs.) | (Rs.) |
| <u>Schedule- 10</u> | | |
| <u>Receipts from TAI</u> | | |
| For PF Advances | 2,093,000 | 772,000 |
| For Gratuity Payments | - | 335,054 |
| For PF Payments | - | 955,309 |
| Total | 2,093,000 | 2,062,363 |
| <u>Schedule - 11</u> | | |
| <u>Other Receipts</u> | | |
| Recovery of Festival Advance | 69,300 | 62,100 |
| Donations for Medicines | 12,490 | 13,493 |
| Staff Welfare Fund | 3,382 | 3,224 |
| Interest on FFD A/c | 128,433 | 353,188 |
| Interest on Saving A/c (Earmarked Fund) | 33,633 | 46,430 |
| General Donation | 10,000 | - |
| Miscellaneous Receipts | 1,270 | 30 |
| Earnest money | 25,000 | - |
| Auditorium Fund | 10,000 | |
| Project-Genetic Polymorphism | - | 30,000 |
| Project-Acceleration of TB notification | 224,800 | 224,800 |
| Project-Framework of TB.care in prisons | - | 241,500 |
| Project-Xpert Ultra | - | 838,663 |
| universal comfort products ltd. | 1,889 | - |
| Total | 520,197 | 1,813,428 |

NEW DELHI TUBERCULOSIS CENTRE

| | For the year 2016-17 | For the year 2015-16 |
|---------------------------------|---------------------------------|---------------------------------|
| | (Rs.) | (Rs.) |
| <u>Schedule- 12</u> | | |
| <u>Staff Expenditure</u> | | |
| Salaries | 9,680,549 | 10,838,531 |
| Dearness Allowance | 12,455,119 | 10,867,447 |
| House Rent Allowance | 2,859,047 | 2,762,539 |
| Transport Allowance | 1,796,347 | 1,699,587 |
| Other Allowances | 614,978 | 595,399 |
| Children's Education allowance | 333,700 | 343,252 |
| Contribution to Provident Fund | 2,198,557 | 2,123,277 |
| Contribution to Gratuity Fund | 412,000 | 695,000 |
| Bonus | 266,707 | 92,080 |
| Travel Concession | 147,258 | 233,599 |
| Total | 30,764,262 | 30,250,711 |

NEW DELHI TUBERCULOSIS CENTRE

| | For the year 2016-17 | For the year 2015-16 |
|------------------------------------|---------------------------------|---------------------------------|
| <u>Schedule- 13</u> | (Rs.) | (Rs.) |
| Administrative Expenses | | |
| Wages to Contractual staff | 945,071 | 798,447 |
| Wages to Temporary staff | - | 118,034 |
| Security Charges | 753,412 | 530,905 |
| Staff Uniform | 9,591 | 10,834 |
| Medical Aid to staff | 263,389 | 248,468 |
| Travelling Expenses & Conveyance | 28,104 | 48,865 |
| Repairs to Furniture and equipment | 121,535 | 85,244 |
| Repairs to X- Ray equipment | 41,375 | 36,042 |
| Repairs to Laboratory equipment | 93,414 | 35,755 |
| Telephone Expenses | 135,649 | 129,790 |
| Printing & Stationery | 92,399 | 90,360 |
| Postage | 5,615 | 3,825 |
| Laundry Charges | 5,610 | 3,298 |
| Books & Journals | 860 | - |
| Maintenance of car | 29,764 | 41,217 |
| Audit Fee | 24,150 | 24,045 |
| Miscellaneous expenses | 107,953 | 95,393 |
| Building maintenance -civil | 798,933 | 534,015 |
| Building maintenance -Electrical | 179,400 | 31,066 |
| Annual day expenses | 38,478 | 195,799 |
| Furniture | 319,860 | 484,426 |
| Legal expenses | 42,350 | 79,200 |
| Linen and bedding | - | 1,890 |
| Total | 4,036,912 | 3,626,918 |

NEW DELHI TUBERCULOSIS CENTRE

| | For the year 2016-17 | For the year 2015-16 |
|--|---------------------------------|---------------------------------|
| | (Rs.) | (Rs.) |
| <u>Schedule- 14</u> | | |
| <u>X-Ray Films, Drugs and Medicines & Lab. Consumable</u> | | |
| X-Ray Films and Chemicals | 105,028 | 103,462 |
| Drugs and Medicines | 44,837 | 48,150 |
| Laboratory Stains and Chemicals | 127,930 | 340,145 |
| Total | 277,795 | 491,757 |
| <u>Schedule- 15</u> | | |
| <u>Payments from TAI Fund</u> | | |
| PF Advances | 2,093,000 | 772,000 |
| Gratuity Payments | - | 335,054 |
| PF Payments | - | 955,309 |
| Total | 2,093,000 | 2,062,363 |
| <u>Schedule- 16</u> | | |
| <u>Other Payments</u> | | |
| Festival advance | 58,500 | 67,500 |
| Earnest money | - | - |
| General donation | - | - |
| Staff Welfare Fund | - | - |
| Donation fo medicines | 33,953 | 36,692 |
| Auditorium funds | 123,885 | 88,406 |
| Ptoject-SMS for sure | 644,800 | 426,047 |
| Project-Acceleration of TB notification | 364,954 | 3,725 |
| Project-Xpert Ultra | 475,442 | - |
| Project Genetic Polymorphism | 30,000 | - |
| Security deposit | 22,344 | - |
| Total | 1,753,878 | 622,370 |

NEW DELHI TUBERCULOSIS CENTRE
Annexure 1 (for the year ended 31st March 2017)

| | Grant-in-aid Salaries | Grant-in-aid General |
|---|----------------------------------|---------------------------------|
| | (Rs.) | (Rs.) |
| <u>INCOME</u> | | |
| Opening surplus/(Deficit) (01.04.16) | (6,675) | 201,603 |
| Grant-in-aid from Govt.of India | 31,000,000 | 3,734,000 |
| Maintenance Grants from TAI | - | 10,000 |
| Fees from Patients | - | 291,900 |
| Interest income | - | 152,196 |
| Other receipts | - | 1,270 |
| Total | 30,993,325 | 4,390,969 |
| <u>EXPENDITURE</u> | | |
| Salary & Other Staff expenditure | 30,880,412 | - |
| Administrative Expenses | - | 3,911,053 |
| Expenses on X-Ray Films, Drugs & Medicines and Lab. Consumable | - | 282,236 |
| Total | 30,880,412 | 4,193,289 |
| Surplus/(Deficit) | 112,913 | 197,680 |
| Total Surplus as on 31.03.3017 | | 310,593 |

NEW DELHI TUBERCULOSIS CENTRE

Schedule – 17

Significant Accounting Policies and Notes to Accounts

A. Significant Accounting Policies :

1. Accounting Convention :

The Financial Statements have been prepared on accrual basis (except as specifically stated) and under the historical cost convention, and in accordance with the generally accepted accounting principles in India.

2. Use of Estimates:

The preparation of the Financial Statements in conformity with GAAP in India requires management to make estimates and assumptions, wherever necessary, that affect the reported amount of assets and liabilities and contingent liabilities as at the date of financial statements and the amount of revenue and expenses during the year. Actual results could differ from those estimates. Any revision to such estimates is recognized in the year in which the results are known / materialized.

3. Revenue Recognition :

Income & Expenditures have been accounted for on accrual basis except for leave encasement.

4. Fixed Assets & Depreciation:

- a) Fixed Assets are stated at cost, Assets received as donation are stated at estimated market value on the date of donation.
- b) Centre has started charging Depreciation from the Financial Year 2011-12 on its Fixed Assets as per rate prescribed under Income Tax Act, 1961.
- c) Further, Depreciation has been debited to the Assets Fund by Crediting Cost of respective Fixed Assets.
- d) Capital items having cost / value less than Rupees Five Thousand are not capitalized.
- e) Assets Fund has been credited with the cost/value of Fixed Assets acquired during the year by debiting Income & Expenditure account and / or Project Fund.

5. Inventories :

Laboratory stains, chemicals and glassware and x-ray films & chemicals are valued at purchase price following FIFO method (Refer Note No. 3).

6. Gratuity :

Liability for future payments of Gratuity has been provided for as per the rules of Tuberculosis Association of India (TAI) and said Gratuity Fund is also maintained by TAI.

7. Provident Fund :

As per rules of Tuberculosis Association of India (TAI), accounts relating to Provident Fund of the staff of the Centre have been maintained by the (TAI).

8. Interest Incomes :

Interests earned on the Investments of Earmarked Funds have been credited directly to such Fund instead of Income & expenditure Account.

B. Notes to Accounts

1. In absence of any demands from Lok Nayak Hospital for Electricity and water expenses no liabilities have been provided till the financial year 2015-16. However, from 2016-17 Lok Nayak Hospital started raising bills for electricity charges only.
2. Title deed of the land on which Buildings are situated is not available.
3. Cost / Value of stock are as valued and verified by the Management.
4. In absence of PAN, Bank is deducting TDS on interest at higher rate than the normal rate of TDS i.e. @ 20%. However, the Centre has now got the PAN and accordingly from February onwards normal rate has been applied by Bank for TDS.
5. Previous year's figures have been regrouped / rearranged wherever considered necessary.

Accountant
(S.K. Saini)

Director
(Dr. K.K. Chopra)

Chairman
(Dr. L.S. Chauhan)

Place: New Delhi

Date : 28.09.2017

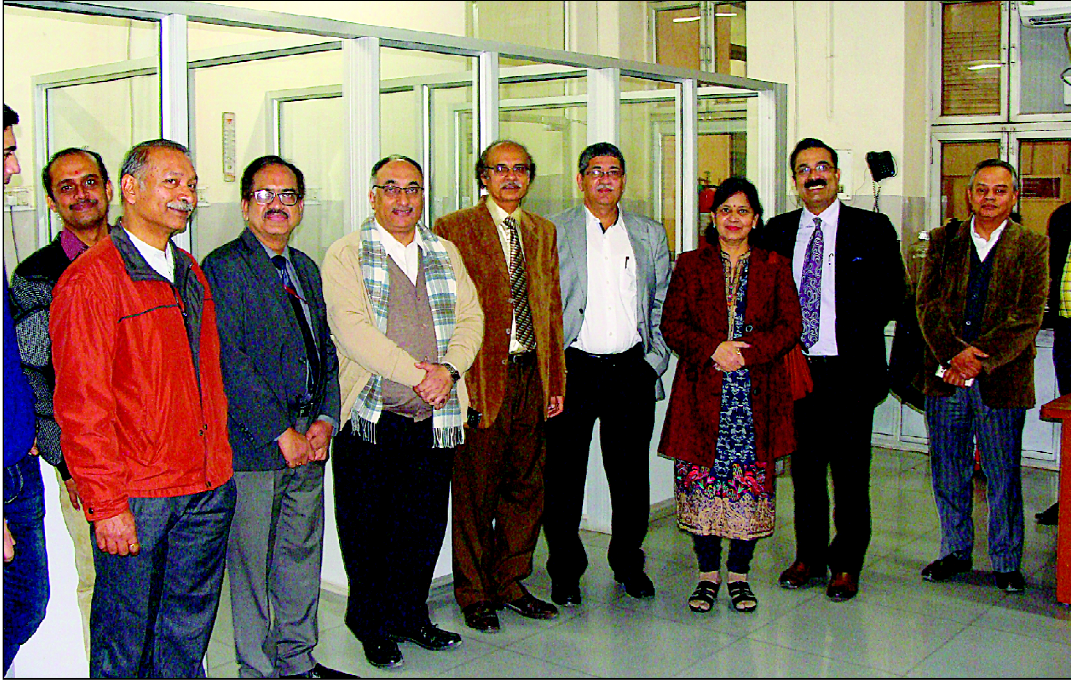
VISIT OF PARLIAMENTARIANS



VISIT OF NABL ASSESSOR



VISIT OF HIGHER GOVERNMENT DIGNITARIES



WORLD TB WEEK CELEBRATION

