

NEW DELHI TUBERCULOSIS CENTRE

ANNUAL
REPORT

2017 - 2018

FACILITIES AVAILABLE AT NDTBC



OPD Consultation



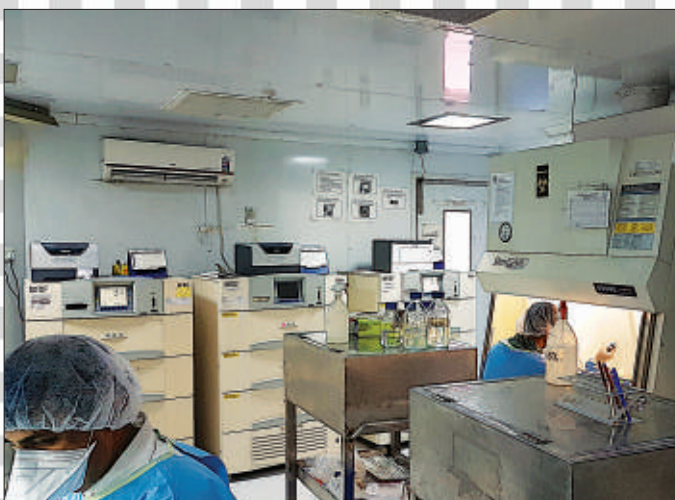
Radiological Examination



Tuberculin Testing



Sputum Examination



BSL Laboratory



DOTS Centre

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Message from Chairman

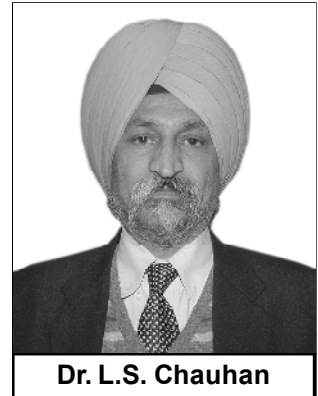
I feel privileged to be associated with New Delhi Tuberculosis Centre (NDTBC), an oldest center in the country providing TB services. Commencing its journey as a Model TB Clinic in 1940, today it holds a place of pride amongst the National level institutes serving the patients with TB and other respiratory diseases.

NDTBC has been supplementing the efforts of Government of India in the control of Tuberculosis by supporting the activities of erstwhile National TB Control Program or presently Revised National TB Control programme.

In addition to its contribution in awareness generation, prevention, early detection and treatment of TB patients, it has been designated as State TB Training and Demonstration Center (STDC) and Intermediate Reference Laboratory (IRL) for the state of Delhi to monitor RNTCP activities and quality control of sputum smear microscopy in Designated Microscopic Centers of Delhi state.

The Centre has an excellent mycobacterial department for carrying out quality diagnosis through laboratory facilities like Line Probe Assays, MGIT system, Gene Xpert, BSL III facility and Liquid Culture and introduction of Gene sequencer this year. The laboratory is in the process of NABL accreditation.

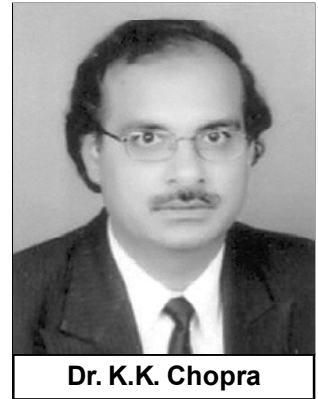
I express my heartfelt gratitude and appreciation to the learned faculty, technical staff and other employees for their consistent efforts to build this Centre to the present level. I am also grateful to the Ministry of Health and Family Welfare, Central TB Division and Government of Delhi for extending their support to the Centre.



Dr. L.S. Chauhan
Chairman

From Director's Desk

I feel privileged to bring out Annual Report of New Delhi TB Centre (NDTBC) for the year 2017-18. The Report presents as a comprehensive treatise highlighting the present achievements of the Institute in the field of 'Patient Care', 'Research', HR development and other developmental activities.



For patient care, we are running a referral clinic for tuberculosis and respiratory diseases. Patients from all over Delhi and neighboring areas are referred by public and private sector for opinion and investigations. During the year 22,599 patients utilized the services of clinical section. The section is also running a special COAD clinic in which 1022 COAD cases are on regular follow up for investigations and treatment.

Laboratory of the Centre is functioning as intermediate Reference Laboratory for Delhi State. Patients from 17 out of 25 Chest Clinics in Delhi are referred here for diagnosis of drug resistant TB. The laboratory is equipped with all rapid diagnostics. We are in process of NABL accreditation of our laboratory and hope to get it soon. New addition this year has been the Gene Sequencer. This year 20,026 patients utilized the laboratory facility. In addition, faculty of laboratory is also engaged in various research activities including post graduate and Ph.D thesis. This year 6 research projects are underway.

The Centre is also engaged in teaching and training activities. The interns and post graduate medical students of MAMC and V P Chest Institute are posted for teaching and training here. The Centre runs a TB Supervisory Course in addition to the training of nursing students from Ahilaya Bai College of Nursing, RML Hospital and Lady Reading Health School. Initial induction and retraining of Medical and paramedical staff under RNTCP is important activity. This year, 2749 personnel were trained.

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.

Last year, ECHO-MDR distance learning project was 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 on 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 and this year independently expanded for medical colleges and major private hospitals.

The faculty of the Centre is actively involved in conducting research activities in clinical, bacteriological and programme related aspects. During the year, 4 papers were published in journals and 4 were communicated for the publication.

TB Association of India has been monitoring the working of NDTB Centre since its inception and guiding in improving activities of the Centre.

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

New Delhi Tuberculosis Centre was established in 1940 as a grantee institute of Government of India, Ministry of Health & Family Welfare. In 1951, it was upgraded as the first TB Demonstration cum Training Centre in the country with the assistance of WHO, UNICEF and Government of India. In 1966, the Centre became a referral institute for tuberculosis patients. The patients from all parts of country who are referred at the Centre were given diagnostic and treatment facilities.

In the year 1997, New Delhi Tuberculosis Centre joined hands in implementation of DOTS strategy under RNTCP. At this time, the Centre was one of the 10 chest clinics of Delhi who covered a population of about 0.5 million spread over an area of 15 sq. km. mainly in walled city of Delhi.

In the year 2005, the Central TB Division has designated New Delhi TB Centre as State TB Training & Demonstration Centre and Intermediate Reference Laboratory for Delhi State in addition to functioning as referral Centre for patients of pulmonary diseases and tuberculosis.

In the year 2015, the Centre has celebrated Platinum Jubilee year of its establishment. For this, monthly patients' care related activities have been planned and executed.

The Centre has a Managing Committee which oversees the smooth functioning of New Delhi TB Centre. The Managing Committee has general control of the affairs of the Centre and has authority to do, exercise and perform all the powers, acts and deeds for the planning, establishment and running of the Centre. The committee consists of members from Ministry of Health & FW, Delhi Government, Corporations, TB Association of India and other NGOs. For smooth running of the Centre, the Ministry of Health & Family Welfare (CCD) allots the grant in aid to the Centre every financial year.

MANAGING COMMITTEE MEMBERS

Vice- Chairman Tuberculosis Association of India	Chairman
The Hony. Treasurer Tuberculosis Association of India	Financial Adviser
The Additional Secretary & FA Ministry of Health & Family welfare	Member
The Joint Secretary (Health) Ministry of Health & Family Welfare	Member
The Deputy Director General (TB) Ministry of Health & Family Welfare	Member
The Director National Institute of TB & Respiratory Diseases	Member
The Director VP Chest Institute	Member
The Director of Health Services Delhi Administration	Member
The Director Medical Services New Delhi Municipal Committee	Member
The Honorary General Secretary Delhi Tuberculosis Association	Member
The Secretary General Tuberculosis Association of India	Member
The Director H&F Welfare Directorate of Health Ministry of Railway	Member
The Director New Delhi TB Centre	Member Secretary

SCIENTIFIC ADVISORY COMMITTEE

Dr. L.S.Chauhan Chairman New Delhi Tuberculosis Centre	Chairman
Dr. Devesh Gupta Addl. Director General (TB) Central TB Division Ministry of Health & Family welfare	Member
Dr. Ashwani Khanna State TB Officer Delhi State	Member
Prof. Raj Kumar Director V P Chest Institute	Member
Dr. Varinder Singh Professor – Padiatric, Kalawati Hospital Lady Harding Medical College	Member
Shri G.P. Mathur Ex-Statistician 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. K.K. Chopra Director New Delhi Tuberculosis Centre	Member Secretary

ETHICAL COMMITTEE

Prof. Raj Kumar 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. 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
Dr. Nishi Agarwal Statistician New Delhi Tuberculosis Centre	Member
Sh. Kumar 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. S.K. Saini B.Com, AICWA	Administrative Officer (Officiating)

RESEARCH AND PUBLICATIONS

(A) Research papers published

During the year 2017-18, the following research papers have been published or submitted by faculty of the Centre:

1. **Phenotypic drug resistance confirmation of additional second line drugs in extra-pulmonary multi drug resistant TB patients** published in International JI of current advanced Research; 2018,7-1 (C): 8900-8902.
2. **Isolation and Identification of Mycobacterium tuberculosis with Mixed Growth from Positive MGIT 960 Cultures by Re-Decontamination** published in JI Biotechnol Biomater 2017; 7:1-3
3. **Inflammation at the Centre of all Respiratory Diseases including Tuberculosis.** Editorial accepted for publication in Indian JI of Tuberculosis.
4. Research paper entitled “**Accelerating access to quality TB care for pediatric TB cases through better diagnostic strategy in four major cities of India**” accepted for publication in PLOS ONE Online Journal PONE-D-17-38222R1.
5. **Genetic Polymorphism of Rare mutations in M. tuberculosis infected patients in Delhi.** Original article published in Biotechnology Research Journal March 2018; IP 2 : 74-81
6. **Detection of Multi Drug Resistance (MDR) and Extensively Drug Resistance (XDR) among smear negative extra pulmonary TB cases in a Reference laboratory,** article accepted for publication in Biomedical and Biotechnology Research JI.
7. **Meso level multidisciplinary approach for reduction of pre treatment doss to follow up in RNTCP,** Delhi, India. Original article published in IJT 2017;281-90.
8. “**Role of Social work in TB**” an article by Ms. Shadab Khan and Dr. K.K. Chopra published in a book by Pankaj Singh entitled “Social work in hospital helping profession” and in a souvenir of TB Association of India released on 2nd October, 2017.

(B) **Research Projects**

1. **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.

2. **Active Case Finding Campaign of Tuberculosis among People who use intravenous drugs in New Delhi.**

Objective of the OR is (a) Early identification of TB suspects. (b) Early diagnosis (c) Treatment preparedness (d) Link to Treatment and Care. Targeted Population : Person who inject drugs in the area of Delhi of Jamuna Bazar, Hanuman Mandir, CP of New Delhi. Estimated number of population will be from field area of two target intervention centres of DSACS project which is approximately 1500. Activities proposed: (a) Training/Orientation for the team (b) Community meeting on TB awareness (c) 4 symptoms TB Screening of 1500 PWID in two given sites (d) Accompanied referral who is suspected for TB (e) Treatment preparedness and treatment follow ups for TB positive clients.

3. **Mapping of anti mycobacterial drug resistant hotspots under Revised National Tuberculosis Control Programme (RNTCP) in Delhi state.**

Objective of the OR is a) To estimate the prevalence of 1st & 2nd line drug resistance in PTB cases in Delhi state. b) To analyze the effect of drug resistance in the treatment outcome of the corresponding patients. c) To map the hotspots of drug resistance pattern in Delhi state. Retrospective data from 25 chest clinics of Delhi state for 2015 will be collected. The patient recruitment, diagnosis and treatment were done as per RNTCP guidelines. Resistance pattern of 1st and 2nd line will be collected. Data analysis will be done using SPSS v20. GIS mapping: ArcGIS software will be used for mapping of drug resistant hotspots.

4. **Effect of counselling intervention on outcome among MDR TB patients in Delhi.**

Objective of the OR is to see effect of the counseling intervention among MDR TB cases which will be assessed by (a) Treatment adherence among DRTB patients (b) Loss to follow up among DR TB patients (c) To provide psycho social support to DRTB patients and their

family members (d) Early detection of TB among household of patients. (e) Linkage the patient with existing social support services. Methodology would be a) Baseline data will be collected from RNTCP records of three years. b) Trained counsellor will be recruited at LN DRTB Centre. c) The counsellor will provide concurrent facility and home based counseling to all MDR TB patients currently on treatment using a pre-structured module. d) Counselor would also liaison with district/sub-district RNTCP staff. e) Counsellor will interact with MDR TB patients once in 15 days in IP & once for 1 month in CP.

5. **Delhi TB warm line consultation service**

An expert consultation platform with an integrated IT support system, which proposes to address provider's clinical and programmatic TB questions, specifically targeting private physicians and complicated drug-resistant TB is the TB 'Warm Line. It is a telephone /email /web page based support line, answered by medical professional who answer complicated queries, offer referrals and comprehensive feedback to every caller. This is a non-crisis and non-emergency telephone/email service with a 24 hour turn-around-time for call back. Aim: The Warm line system, envisions TB notification and appropriate TB care for all the patients and their families residing in Delhi. Objectives are :

- (1) To provide timely and appropriate expert opinion to private sector providers as per Standards for TB Care in India.
- (2) To improve patient care and outcomes through access to expert consultation.
- (3) To boost private sector notification through engaging the private sector through the provision of expert consultation and
- (4) To link private providers to the ECHO platform for clinical consultation, training and education.

6. **Comparative yield of Mycobacterium tuberculosis by molecular diagnostics in individual respiratory specimens versus pooled specimens for diagnosis of pulmonary tuberculosis in children**

It will be a comparative cross-sectional study. 200 Children aged 1 month to 14 yrs, suspected to suffer from pulmonary tuberculosis will be included in the study. Inclusion criteria would be :-1. Fever or persistent cough or both for 2 weeks, with or without (a) 5% weight loss in past 3 months, (b) History of contact with suspected or diagnosed case of active TB, and 2. Radiological abnormality in the chest skiagram. Exclusion criteria (any) (a) Active sputum

expectoration (b) Arterial oxygen saturation less than 92% on room air. 12 months, period which will be needed for enrolling the case and 3 months period will be needed for collecting and analysing the data.

(C) Abstracts presented in NATCON 2017

During 72nd National Conference on Tuberculosis and Chest Diseases which was organized by Tuberculosis Association of India in Andhra Pradesh. The following abstracts were presented :

1. Pattern of drug resistance observed during revival of *M. tuberculosis* isolates from spurious sputum specimens
2. Genotypic Diversity in Mycobacterium tuberculosis Isolates from Patients with Multidrug-Resistant Tuberculosis
3. Recovery of *M. tuberculosis* isolates from smear negative pulmonary specimens and their drug resistance pattern
4. Use of Genotype *MTBDR plus* assay for rapid diagnosis of mycobacteria other than tuberculosis in smear positive sputum specimens

(D) Abstracts submitted for Union World Lung Health Conference 2018

1. 'Active Case Finding among homeless citizens in Delhi, India – Experiences and lessons learned from a 15-weeks intervention'.
2. Tuberculosis Medical Consultation models to improve patient treatment outcomes.
3. Clinical course of illness and pattern of symptom resolution during treatment in children with extra-pulmonary tuberculosis.
4. Development of Operational framework for ACF among female sex workers.
5. Development of operational framework for ACF among persons using Intravenous drugs.
6. Tuberculosis Intervention Model Targeting Mobile population of truckers in Delhi, India.
7. Self notification through chemist : Progenitor approach towards Ending TB in Delhi.

MD/ Ph.D Thesis/ M.Sc. Dissertation conducted

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, New Delhi)

Childhood TB can be used as a sentinel marker to evaluate the effectiveness of a TB control programme. It is seen that the pattern of drug resistance in children in a community generally mirrors that of the adult population. Children rarely have acquired resistance because childhood TB is usually pauci bacillary with small organism load. Hence it is unlikely that resistant mutants will occur and be selected. 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. 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. Therefore this study was carried out to observe pattern of drug sensitivity and emerging drug resistance in children with TB. Children with 0-14 years of age diagnosed with TB (free from known immunodeficiency and serious illness) were included in the study. Mycobacteriological examination like Xpert MTB Rif, Line Probe Assay and MGIT Culture and DST were carried out. Results analysed and thesis submitted.

2. 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, New Delhi)

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, analysis done and thesis submitted.

3 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 submitted to Department of Life Science, Jaipur National University, Jaipur, Rajasthan)

Diagnosing XDR-TB earlier among MDR-TB 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 cases 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 specimens from MDR TB suspects 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 were subjected to LPA.

Diagnosed MDR specimens were further tested for drug susceptibility testing (DST) by MGIT 960 as well as by LJ proportion method for two second line drugs namely ofloxacin and kanamycin.

Study completed and results analysed. It was found that liquid culture system is more rapid and sensitive. Because of this, the XDR cases detected were put on treatment earlier.

4 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, India

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 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 attempts were made to rapidly screen drug resistance among smear positive sputum samples obtained from different parts of Delhi by the use of Line probe assay (LPA).

The results were compared with that of the phenotypic drug susceptibility test (MGIT 960 DST) to demonstrate the sensitivity, specificity, accuracy and turnaround time of LPA. 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 presence of uncommon mutations confirmed genetic polymorphism that may require treatment targeted at both drug-resistant and drug-susceptible phenotypes for the better management of patients with MDR-TB.

5. Drug susceptibility testing of Multi-drug resistant and mono rifampicin resistant *M. tuberculosis* isolates against 2nd line anti tuberculosis drugs and molecular epidemiology of XDR strains using Spoligotyping.

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

Tuberculosis is a disease as old as mankind, probably older. The resurgence of interest in this disease may, therefore, seem strangely out of place. The emergence of DR-TB has jeopardized global TB control achievements and threatened the accomplishments of the WHO End TB Strategy. Antimicrobial resistance (AMR) has become one of the dominating, and most pressing, global concerns in public health. Multidrug-resistant TB (MDR-TB, defined as resistance to, at least, rifampicin and isoniazid) and rifampicin-resistant TB (RR-TB) are especially devastating. Globally, the treatment success rate among patients with MDR-TB varies between 49% and 65%, which could worsen with increased resistance to second line drugs. This study was conducted with the intention of knowing the baseline pattern of drug resistance among the presumptive DR-TB patients who had not been previously exposed to second line drugs in form of anti-tuberculous therapy and to perform the molecular epidemiology of XDR-TB isolates identified using Spoligotyping.

Sputum samples from presumptive drug resistant TB cases were tested for susceptibility against Isoniazid and Rifampicin using Line probe assay. The MDR-TB and RR-TB isolates identified were further tested for susceptibility against second line anti-tuberculosis drugs (kanamycin, capreomycin, levofloxacin, moxifloxacin, Linezolid, and Clofazimine). All the XDR strains identified were subjected to genotyping using Spoligotyping.

6. 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)

A lot of work has been done to detect drug resistance on smear positive TB patients but sparse data is available on smear negative pulmonary 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. Therefore, this study was initiated with 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 (LPA) on cultures. DST for number of second line drugs using MGIT was also done on positive cultures.

This study has been completed and data analysed. The results revealed that there were MDR TB cases identified among the smear negative cases. Some of them turned out to be XDR TB cases. Spoligotyping was done for these cases and the results showed that majority of the strains belong to the commonly identified group.

Ongoing thesis work

7. Role of Polymerase Chain Reaction (PCR) and Mycobacteria Growth Indicator Tube (MGIT) in the diagnosis of Cutaneous Tuberculosis

(MD thesis of student fro Department of Microbiology, Maulana Azad Medical College, New Delhi)

There is paucity of data on comparative study between conventional diagnostic methods, Histopathology, Mycobacteria Growth Indicator Tube (MGIT) and Polymerase Chain Reaction (PCR) for diagnosis of cutaneous tuberculosis in literature till date from India. Therefore this study was started with objectives to identify Mycobacterium tuberculosis from cutaneous tuberculosis case by Polymerase Chain Reaction (PCR), Mycobacteria Growth Indicator Tube (MGIT) and conventional diagnostic methods and also to compare the results of Polymerase Chain Reaction (PCR) with Mycobacteria Growth Indicator Tube (MGIT) as reference standard.

All patients attending the Dermatology out-patient/in-patient departments of Lok Nayak Hospital with clinical features suggestive of cutaneous tuberculosis will be entitled to be enrolled in this study as per the inclusion and exclusion criteria and samples from these cases will be subjected to Z-N Microscopy, Solid culture using the LJ media, Liquid culture using the MGIT960 system, in house polymerase chain reaction and histo pathological investigations.

8. A Study of Uterine and Tubal Factors in Causation Of Infertility In Women With Extra genital Tuberculosis.

(MD thesis of student for Department of obstetrics and gynaecology, Lady Harding Medical College & Associated Hospitals, New Delhi)

Genital tuberculosis is an important cause of infertility in women. Female genital tuberculosis is always secondary to primary foci elsewhere in the body. This may remain asymptotic and latent for long period contributing towards infertility. The diagnosis is often difficult due to its paucibacillary nature. Many studies have associated symptomatic genital tuberculosis with infertility, however there is paucity of literature on impact of extra genital tuberculosis on fertility of women. India being a developing country has a high prevalence of pulmonary tuberculosis. Hence this study was started with objectives (i) To study the uterine and tubal factors contributing to infertility in women with extra genital tuberculosis. (ii) To assess women with past history of extra genital tuberculosis for uterine and tubal factor infertility. (iii) To assess women without any history of extra genital tuberculosis for uterine and tubal factory infertility.

All women presenting the infertility clinic will be subjected to routine infertility work up. This will include detailed history and examination, blood investigations (CBC with peripheral smear with ESR), Mantoux test, chest X-ray, husband semen analysis, pre-menstrual endometrial biopsy, ultrasound pelvis and Day 21 progesterone. All women will be screened for any evidence of extra genital TB through history and investigations like smear microscopy, culture and histo pathololg will be done Clinical samples will be sent for GeneXpert testing and also for liquid culture.

9. To Study The Association Between Clinic-Demographic Profile And Drug Resistance in Musculo-Skeletal Tuberculosis.

(Ph.D thesis of student Maulana Azad Medical College, New Delhi)

There is paucity of data regarding the pattern of drug resistance in cases of musculoskeletal TB in India, especially new cases. There is paucity of data regarding the pattern of drug resistance in musculoskeletal tuberculosis in India. Therefore this study was started with

objectives (i) To estimate the prevalence of drug resistance in musculoskeletal tuberculosis (ii) To compare and associate clinical features in patients with or without drug resistance in musculoskeletal tuberculosis. (iii) To compare and associate social-demographic profile in patients with or without drug resistance in musculoskeletal tuberculosis.

A total of 100 patients will be included in the study. All cases selected as per the above inclusion and exclusion criteria will undergo the following evaluations like Demographic profile, Clinical symptoms, Clinical signs, Haematological investigation, Radiological investigations, Liquid culture, DST, Lowenstein Jensen medium (solid culture).

PARTICIPATION IN SCIENTIFIC EVENTS

1. A meeting to discuss the modalities to conduct a project “Role of mRNA in prognosis of pulmonary tuberculosis cases in Delhi state” was held in Lok Nayak Chest Clinic on 4th April 2017. Dr. K.K. Chopra, Director participated in the discussion.
2. A meeting to re-organise weekly ECHO Clinic was held on 4th April 2017. It was decided to conduct once a month ECHO Clinic by STDC Delhi for training of RNTCP staff and programme evaluation.
3. A meeting to review ongoing ZMQ project for ensuring treatment adherence was held on 4th April 2017 in STO office. Dr. K.K. Chopra, Director participated in the meeting.
4. Dr. K.K. Chopra, Director participated in the review of project NIKSHYA being conducted by the Union on 10th April 2017. Project was reviewed by Executive Director of the Union with State TB Cell in area of Malviya Nagar Chest Clinic. This also included field visit to the slum area under the chest clinic.
5. A survey was conducted in three different locations to make that area TB free; and the objective of conducting survey was to find active TB case. Any individuals having cough for more than two weeks were screened at NDTB Centre. The areas were: (i) 100 quarters, Delhi Gate and (ii) Mata Sundari Road Juggi Cluster (iii) Slum area LN Colony. Total 20 symptomatics were indentified and investigated.
6. Weekly ECHO clinic was conducted by STDC Delhi on 25th April 2017. A discussion was held on “Nikshay Entries” in new module and e-based reporting for PMDT since 1st quarter 2017. A record 130 spokes and 350 participants attended the discussion. Participants include DTOs and supervisory staff of Delhi state. In addition, STOs of six states and faculty of other national institutes also attended the discussion.
7. Two days workshop for development of tools for evaluation of PMDT’ was held on 5th and 6th May 2017 at NITRD. Dr. K.K. Chopra, Director participated in the workshop as an expert.
8. ECHO Trust organised half day session on ECHO-CHW Training programme on 5th May 2017 to discuss about ECHO-Asia project. Dr. K.K. Chopra, Director participated in the event.
9. Delhi state review for preparedness for daily DOTS was held on ECHO platforms on 12th May 2017. Review was done by CTD. Dr. K.K. Chopra, Director presented the details of steps taken to roll out daily DOTS in Delhi state during the discussion.

10. Ethical committee meeting of NITRD was held on 28th May 2017. Dr. K.K. Chopra, Director attended the meeting as alternate chairman. Three research projects were discussed during the meeting.
11. One day sensitization about new technical and operational guidelines was held on 28th May 2017 in auditorium of NDTB Centre for laboratory technicians working in DOTS-cum-Microscopy centres of Delhi state. Similar sensitization programme was held on 30th May 2017 also.
12. Weekly ECHO Clinic was conducted on 31st May 2017. Didactic during the clinic was given by Dr. K.K. Chopra, Director on “Resistance among TB patients and its clinical implications”.
13. Delhi State ECHO Clinic as organised on 7th June 2017 from STDC Hub. This session was for para medical staff. 100 laboratory technicians, STLS and medical officers attended the session. Dr. M. Hanif, Microbiologist gave dietetics on “Diagnostic Algorithm under RNTCP” and Dr. Zeeshan (Microbiologist) discussed the OSE findings of field visits.
14. One day workshop was organised for Medical Officers of Delhi government dispensaries on 12th June 2017. This was regarding latest Technical and Operational Guidelines under RNTCP. About 50 Medical Officers attended the training. Similar workshops were organised on 15th, 20th, 22nd and 27th June 2017.
15. State level review of PMDT activities was held on ECHO platform on 16th June 2017 from STDC Hub. State TB Officer and Director, STDC reviewed the Nikshay entries in new PMDT module by all the DRTB Centres and culture DST laboratories. The issues related to entries were discussed and sorted out.
16. One day workshop was organised for faculty of ESI hospitals of Delhi and NCR in Basai Darapur. This was regarding newer technical and operational guidelines for RNTCP. About 100 doctors attended the workshop. Similar workshops was organised for Medical Officers of ESI dispensaries on 28th June 2017.
17. A workshop to finalise the work instructions for carrying out Active Case Finding among Intravenous Drug Users was held in STDC on 28th June 2017. Representatives from WHO, State TB Cell, NACO and District TB Officers of SPM and NDMC Chest Clinic with their staff attended the meeting.
18. The Technical Specifications Committee for finalization of Technical specifications of Mobile Van with the Cartridge based nucleic acid amplification testing (CBNAAT) under RNTCP was held under chairmanship of Dr B D Athani, Special DGHS MoHFW on 4th July 2017. Dr. K.K. Chopra, Director attended the meeting as member of committee.

19. ECHO clinic was conducted from STDC hub on 5th July, 2017. The didactic on Active Case Finding was given by Dr K K Chopra, Director. Field experience was shared by Dr B K Vashist, DTO, BJRM Hospital.
20. A meeting of scientific committee of RBIPMT was held on 10th July 2017. Dr. K.K. Chopra, Director and Dr. M. Hanif, Microbiologist attended the meeting as member. One thesis protocol of DNB student was discussed in the meeting and the protocol was recommended after few minor modifications.
21. A CME was organised in ESI Hospital, Rohini, New Delhi on 13th July, 2017. The Doctors of various specialities of the hospital attended the CME. Dr.K.K. Chopra, Director delivered a lecture on 'Treatment of TB under TOG'. Eighty faculty members and resident doctors attended the CME.
22. A meeting with project ECHO team to finalise NDTB ECHO Project with four government medical colleges and four private hospitals was held on 13th July 2017. The purpose of the meeting was to share their knowledge and case discussion.
23. Delhi State PMDT review meeting was held on 14th July 2017 in STDC Delhi. Nodal officers of culture DST labs and DRTB centres presented their reports of the quarter. Various issues related to labs were discussed.
24. A meeting to finalise the scientific programme of 72nd NATCON was held in TB Association of India on 24th July 2017. Dr. K.K. Chopra, Director attended the meeting to finalise the programme with organisers from Hyderabad where NATCON 2017 will be held.
25. Delhi state RNTCP review meeting was held on 26th July 2017 in New Delhi TB Centre. Dr. K.K. Chopra, Director, STDC presented the analysis of quarterly reports of 25 chest clinics. Various activities of RNTCP were discussed including challenge in tuberculosis management and Nikshay Entries.
26. Ethical committee meeting of NITRD was held on 28th July 2017. Dr. K.K. Chopra, Director attended the meeting as its Chairman. Two protocols of DNB students were discussed and approved.
27. Core committee meeting of Lady Harding Medical College, Delhi was held on 31st August 2017. Dr. K.K. Chopra, Director attended the meeting and delivered a lecture on TB Management under RNTCP as per new Technical and Operational Guidelines.
28. Delhi State Task Force meeting was held on 3rd August, 2017 in Community Medicine Department, Maulana Azad Medical College. Faculty of NDTB Centre participated in the

meeting as its members. Dr. K.K. Chopra, Director delivered a lecture on 'Treatment under new TOG of RNTCP'.

29. A meeting was held with representatives of SPYM, Darya Ganj and State TB Officer on 8th August 2017. During the meeting discussion was held on active case finding in night shelters of Delhi and Tihar Jail.
30. A meeting of State Oversight Committee of DSAC was held on 9th August 2017 in DSACS Office. Dr. K.K. Chopra, Director attended the meeting as Delhi state RNTCP representative.
31. A sensitization session was conducted for field workers of NGO GLRA and Apollo Tyre Foundation. About 40 field workers were trained about identification of TB symptomatic and diagnosis and treatment guidelines under RNTCP.
32. A meeting of TB-HIV Coordination Committee was held on 30th August 2017 at STO Officer. Dr. K.K. Chopra, Director attended the meeting. During the meeting it was decided to conduct training of ART MOs and staff on TOG and daily DOT. It was also decided to give INH prophylaxis to all PLHIV cases.
33. Sensitization workshop for field workers of SPYM night shelters was held on 31.8.2017. Dr. Shankar Matta (Epidemiologist) briefed them about screening of TB suspects and planning for conducting screening of night shelters inmates for TB.
34. ECHO clinic was conducted from STDC hub on 6th September, 2017. The didactic on LPA Overview was given by Dr Himanshu, Microbiologist, NDTB Centre. This was followed by clinical case discussion. Case was presented by DTO Narela. Recommendations about LPA and case discussion were given at the end of session.
35. Delhi TB Association conducted a patient providers meeting at Geeta Ghat night shelter on 7th September 2017. Dr. K.K. Chopra, Director participated in the event and discussed the problems of homeless patients and educated them about early identification of symptoms of TB.
36. National review meeting of RNTCP was held from 12th to 14th September 2017 in Chandigarh. Dr. K.K. Chopra, Director attended the meeting and presented the data of Delhi state RNTCP during the meeting.
37. Association of Chambers of Commerce and Industries organized three days seminar in Delhi about health care from 23rd to 25th September 2017. Dr. K.K. Chopra, Director attended the seminar and delivered a talk of health care, pathways and sustainability.
38. ECHO clinic was conducted from STDC hub on 4th October, 2017. The didactic was on

'Diagnostic Services – First pillar to TB elimination by 2025 was given by Dr Sundari, Medical Officer, WHO SEAR Office. This was followed by clinical case discussion.

39. The National TB Programme has decided to conduct a comprehensive assessment of the TB Laboratory Diagnostic Network with support of USAID. The assessment is aimed to evaluate India's TB diagnostic network including policies & guidelines, laboratory infrastructure, and placement & utilization of diagnostic technologies. In this regard, a meeting was conducted on 6th October 2017 at New Delhi TB Centre. Dr. K.K. Chopra, Director and Dr. M. Hanif, Bacteriologist participated in the meeting.
40. Second evaluation visit for NABL accreditation of NDTB Centre laboratory was conducted from 16th to 18th October 2017. Issues identified during first preparatory visit were reviewed and resolved.
41. A meeting was held in ICMR Headquarter on 25th October 2017 regarding Active Case Finding Project. Dr. K.K. Chopra, Director participated in the meeting.
42. TB seal campaign organised by TB Association of India was held in President House on 26th October 2017 where the Hon'ble President of India inaugurated the TB Seal campaign. The faculty of NDTB Centre attended the function.
43. A CME was organised by Hindu Rao Hospital on 27th October 2017. Dr. K.K Chopra, Director and Dr. M. Hanif, Bacteriologist attended the CME and delivered a lecture on "Management of MDR TB" and "Diagnostic algorithm under RNTCP" respectively.
44. ECHO clinic was conducted from STDC hub on 1st November, 2017. The didactic on Rapid detection and Drug susceptibility Testing of M. tuberculosis isolates using MGIT – 960 system was given by Dr. Wasim, Microbiologist. Case presentation was shared by Dr Laureen, MO, DFIT.
45. Delhi state RNTCP review meeting was held on 13th November 2017 in New Delhi TB Centre. Dr. K.K. Chopra, Director, STDC presented the analysis of quarterly reports of 25 chest clinics. During the meeting, new diagnostic algorithm and daily DOTS in Delhi was launched.
46. Ethical Committee meeting of NITRD New Delhi was held on 13th November 2017. Dr. K.K. Chopra, Director chaired the meeting. During the meeting, four projects were discussed and some changes were suggested for incorporation.
47. Shri Anil Baijal, Hon'ble Lt. Governor, Delhi inaugurated the 68th TB Seal Sale Campaign for the National Capital Territory of Delhi on Wednesday, November 15, 2017 at Raj Niwas, Delhi. Theme of this year's TB Seal Campaign is "Clean India- TB Free India".Dr. K.K Chopra, Director attended the campaign.

48. Evaluation visit for NABL accreditation of NDTB Centre laboratory conducted from 16th to 18th November 2017. Issues identified during preparatory visit were reviewed and resolved.
49. Association of Physicians of India has conducted their XXVIII Annual Conference in Hotel Ashok, Chanakypuri on 19th November 2017. Dr.K.K. Chopra, Director attended the conference and delivered a lecture on “MDR Tuberculosis – Current Concepts”.
50. The Centre has celebrated its 77th Annual day on 20th November 2017. Various sports competitions were organized by the Centre to mark the occasion.
51. Regional PMDT review and planning meeting of Northern Region was held from 21st to 23rd November 2017 in Shimla by Central TB Division. Delhi state was part of the review meeting. Dr. K.K. Chopra, Director and Dr. M. Hanif, Microbiologist attended the meeting as part of Delhi state team. During the meeting, Dr. K.K. Chopra, Director delivered a talk on active case finding in vulnerable groups.
52. ECHO clinic was conducted from STDC hub on 28th November, 2017 regarding preparation of 3rd phase of Active Case Finding to be started from 4th December 2017.
53. A meeting to finalise the scientific programme of 72nd NATCON was held in TB Association of India on 11th December 2017. Dr. K.K. Chopra, Director attended the meeting as the member of scientific committee to finalise the programme.
54. The ECHO-India has signed an agreement with New Delhi TB Centre for running independent ECHO Clinic from the Centre on 12th December 2017.
55. ECHO clinic was conducted from STDC hub on 13th December, 2017. The didactic on Mid term review of ACF in Delhi was given by Dr K.K. Chopra, Director, NDTB Centre.
56. Dr. K.K. Chopra, Director joined as Public Health Expert in study entitled “Leveraging Patients’ Social Networks to Overcome Tuberculosis Under-detection in India”, being conducted by J-PAL in collaboration with Delhi State TB Programme. The discussion was held with the field team on 19th December 2017, in this regard.
57. A video conference with Central TB Division was held on 22nd December 2017 regarding Nikshay Entries, DVDMS training and DBT transfers for providers and patients.
58. A meeting was held on 29th December 2017 in NITRD regarding Phd registration of one student for NTM detection in Delhi state. Dr. K.K. Chopra, Director and Dr. M. Hanif, Bacteriologist are co-guides.
59. A meeting was held on 2nd January 2018 with management of ECHO India project and State

TB Officer regarding expansion of spokes to medical colleges and major private hospitals. It was decided to expand the activities to 7 medical colleges and 7 private hospitals as spokes and STDC (NDTBC) as hub.

60. A Meeting with STO and ECHO India team was held on 3rd January 2018 to finalise modalities to roll out independent STDC ECHO Clinic on every 1st and 3rd Friday with DTOs and medical colleges and major private hospitals.
61. A session of hands-on CBNAAT Training was conducted for STLS, LTs of Districts where CBNAAT machines are being installed in Delhi state. 7 participants attended on 3rd January 2018. Similar sessions were conducted on 4th, 5th, 6th, 8th and 9th January 2018.
62. A meeting was held with GLRA Management regarding the projects being conducted in four districts of Delhi state. The plan was to review the projects and proposed CME on 23rd January 2018 was also discussed.
63. A meeting was held with representatives of FIND India on 5th January 2018 in relation of installation of LIMS (Laboratory Information Management System) in NDTB Centre laboratory.
64. One day review meeting was conducted on 9th January 2018 with office bearers of GLRA projects conducted by the organisation (Home based care of MDR cases in four districts of Delhi and Trucker's project in Sanjay Gandhi Transport Nagar) were reviewed in presence of District TB Officers of these four districts.
65. Active Case Finding project conducted by BJRM Chest Clinic and NGO GLARA was reviewed at STDC on 10th January 2018. All the 256 x-ray chest done during the project period were re-read and advised accordingly.
66. Central TB Division is in the phase of developing the PMDT evaluation formats along with the support of the NITRD. The objective is to assess the feasibility of using these formats and to know the status of PMDT implementation using these formats. In this context, PMDT evaluation of LN DRTB Centre was done. Dr. K.K. Chopra, Director and Dr. Shanker Matta, Epidemiologist were team members and evaluation was done from 15th to 17th January 2018.
67. Delhi State RNTCP quarterly review meeting cum sensitization of DTOs regarding PIP was held on 18th January 2018 in NDTB Centre. Review of activities of 2nd and 3rd quarter 2018 was done and discussed. Consultant from Central TB Division deliberated on newer formats of Project Implementation Plan (PIP) and their justification.
68. Team from NDTB Centre visited Manav Rachna University on 20th January 2018 to sensitize employees and faculty about TB awareness. Dr. K.K. Chopra, Director explained about

cause, symptoms, management and prevention of TB. The team also conducted screening of employees for Active Case Finding. Ten symptomatics among 100 employees screened were identified and referred for diagnosis and treatment.

69. A CME was organized for doctors working under RNTCP in NDTB Centre on 23rd January 2018 in collaboration with Delhi State TB Cell and NGO GLARA. More than 50 doctors attended the CME.
70. A project discussion meeting on “Delhi State Warm Line Consultation Service” was held on 24th January 2018 in NDTB Centre. Representatives from WHO, Delhi RNTCP and STO attended the meeting and approved the project proposal to be conducted from NDTB Centre.
71. Delhi State Operational Research Committee meeting was held on 30th January 2018 in NDTB Centre. Faculty of the Centre participated in the meeting. In all 30 new and old OR proposals were presented and discussed. 4 projects from NDTB Centre were also discussed and approved.
72. ECHO clinic was conducted from STDC hub on 31ST January, 2018. The Nikshay entries and PIP of Districts and States were reviewed.
73. Meeting to discuss the project on old TB patients for referral of presumptive TB cases with J.Paul Organisation ON 3rd February 2018. It was decided to take five chest clinics for the project which will be representative of whole state.
74. A meeting for mid-term review of the project to evaluate serological test to detect mRMA in MDR TB cases was held in LN Chest Clinic on 3rd February 2018. Dr. Hanif. Bacteriologist attended the meet.
75. Two days workshop for developing a framework to evaluate the TB ECHO programs was organised by CDC at NITRD Delhi on 6th and 7th February 2018. Dr. K.K. Chopra, Director attended the workshop.
76. USAID team from Geneva visited laboratory to NDTB Centre alongwith FIND team on 6th February 2018. The purpose of visit was to assess laboratory network in India under RNTCP.
77. ECHO clinic was conducted from STDC hub on 7th February, 2018. The didactic was on ‘LPA for detection of MDR cases and its Clinical Implications’ given by Dr Kaushal, Microbioloist, NDTB Centre. This was followed by case presentation by Dr. Neeraj from Bijwasan Chest Clinic.
78. Delhi State Task Force meeting was held on 8th February, 2018 in Jamia Hamdard Medical College. Dr. K.K. Chopra, Director and Dr. Hanif, Bacteriologist from NDTB Centre participated

in the meeting as its members. Dr. Chopra, Director delivered a lecture on 'Management of TB and MDR cases as per TOG'.

79. A meeting was held on 17th February 2018 with management of ECHO India project and State TB Officer to finalise expansion of spokes of medical colleges and major private hospitals.
80. A workshop on "National Private Sector Consultation on TB and HIV in the world of work" was held on 22nd February 2018 in New Delhi organized by ILO for South Asia and Country Office for India. Dr. K.K. Chopra, Director attended the workshop as one of the panelist and participated in panel discussion on "Role of companies in responding TB & HIV at the workplaces: what works?".
81. A meeting with FIND India Head, Dr. Sareen and STO regarding a project using mobile CBNAAT machine held on 23rd February 2018. It was decided to conduct the project at sites near mohalla clinics.
82. A sensitization meeting for MDR cases on treatment was organized in R.K. Puram Chest Clinic on 26th February 2018. Dr. Hanif, Bacteriologist attended the meeting.
83. Meeting with DDG, NACO, Dr. K.S. Sachdeva and STO, Delhi regarding sensitization project for doctors and MDR patients held on 27th February 2018. It was decided to conduct the project in East Delhi.
84. Ethical committee meeting of NITRD was held on 1st March 2018. Dr. K.K. Chopra, Director attended the meeting as its member. Three research projects were discussed and approved with minor changes during the meeting.
85. ECHO clinic was conducted from STDC hub on 7th March, 2018. The didactic on Infection control measures was given by Dr Himanshu, NDTB Centre. The case presentation was given by Dr. Rahul, STLC, LN Hospital.
86. "Delhi End TB Summit" co-hosted by Ministry of Health & FW, WHO and Global Stop TB Partnership was organized on 13th March 2018. The Hon'ble Prime Minister of India graced the occasion and addressed the gathering.
87. Dr. K.K. Chopra, Director alongwith faculty members of NDTBC attended the Summit and also delivered Talk, both in Hindi and English, on Rajya Sabha TV on this occasion. The insight of TB programme was also given on DD News.
88. A CME was conducted in Ch. Des Raj Chest Clinic on 14th March 2018. Doctors and para medical staff attended the CME. Dr. K.K. Chopra, Director delivered a lecture on "Management of TB Cases as per new TOG guidelines".

89. A CME was conducted on occasion of World TB Day celebration in Maulana Azad Medical College on 20th March 2018. Dr. K.K. Chopra, Director delivered a lecture on “Management of TB Cases as per new TOG guidelines”.
90. A CME was conducted in Aacharya Bhishm Hospital, Moti Nagar on 21st March 2018. Dr. K.K. Chopra, Director delivered a lecture on “Treatment of Drug sensitive and Drug Resistant TB under RNTCP”.
91. A CME was conducted in All India Institute of Medical Sciences on 22nd March 2018 on occasion of World TB Day. Dr. K.K. Chopra, Director chaired a session on “RNTCP Programmatic Issues”.
92. A CME was conducted on occasion of World TB Day celebration in Hedgewar Hospital on 23rd March 2018. Dr. K.K. Chopra, Director delivered a lecture on “Management of TB Cases as per new TOG guidelines”.
93. The Ministry of Health & FW observed World TB Day in presence of Hon’ble Ministers of State for Health & FW Shri Ashwani Kumar and Smt. Anupriya Patel on 24th March 2018. The new initiatives were launched for RNTCP. The programme was held at RML Hospital, New Delhi.
94. A CME was conducted on occasion of World TB Day celebration in Department of Medicines, AIIMS on 24th March 2018 where discussions were made on TB. Dr. K.K. Chopra, Director attended the programme.
95. Dr. K.K. Chopra, Director delivered Talk on DD News-Total Health programme on 25th March 2018 regarding treatment and prevention of TB.
96. A CME was conducted on occasion of World TB Day celebration in Delhi TB Association on 28th March 2018. Dr. Kirti Bhushan, Director General Health Services, Directorate of Health Services, Govt. of NCT of Delhi was the Chief Guest. Dr. K.K. Chopra, Director was Guest of Honour of the programme and addressed on “Challenges of TB Control Programme in Delhi”.
97. Zonal OR Workshop was organized at Manali on 31st March and 1st-2nd April 2018 for north zone states. During three days, capacity building as well as the discussion on draft proposals from the various states were made. Dr. K.K. Chopra, Director attended the workshop.

MEETINGS

1. Executive Committee meeting of Delhi TB Association was held on 3rd May 2017. Dr. K.K. Chopra, Director attended the meeting as its member.
2. A discussion meeting was held on 13th May 2017 at NITRD to expand ECHO based discussion to all DRTB sites and STDC Delhi and Delhi State TB Office. STO Delhi, Director STDC Delhi and representatives for all the DRTB sites participated in the discussion.
3. Departmental Promotion Committee meeting for staff of NDTB Centre (Group C & D) was held on 5th June 2017 where cases of promotion of staff were discussed and their recommendations were submitted for approval of Managing Committee-NDTB Centre.
4. Departmental Promotion Committee meeting for staff (Group A) of NDTB Centre was held on 12th June 2017 where cases of promotion of staff were discussed and their recommendations were submitted for approval of Managing Committee-NDTB Centre.
5. Meeting of Managing Committee of New Delhi TB Centre was held on 12th June 2017 in conference room of NDTB Centre under the chairmanship of Dr. L.S. Chauhan. Various issues related to general administration were discussed during the meeting.
6. Dr. K.K. Chopra (Director) participated in the meeting of TB Association of India on 1st August 2017. During the meeting, TB Seal designs for the year was discussed and it was decided to keep 'Swatch Bharat/Swasthya Bharat' as TB seal design of this year.
7. NATCON 2017 organised by TB Association of India will be held in Andhra Pradesh. For finalisation of scientific programme for NATCON the meeting was held on 16th August, 2017 and 29th August 2017. Dr. K.K. Chopra, Director attended the meeting.
8. Ethical Committee meeting of NITRD New Delhi was held on 8th September 2017. Dr. K.K. Chopra, Director attended the meeting as one of its member. During the meeting, protocols submitted by DNB students were discussed and finalized after minor modifications.
9. A meeting to select orations of NATCON 2017 was held in TB Association of India on 13.9.2017. Dr. K.K. Chopra, Director attended the meeting as one of the member of the committee. Awardees for different oration and awards were selected during the meeting.
10. NATCON 2017 organised by TB Association of India will be held in Andhra Pradesh. For finalisation of scientific programme for NATCON the meeting was held on 20th September, 2017 and 25th September 2017. Dr. K.K. Chopra, Director attended the meeting.

11. Meeting of Managing Committee of New Delhi TB Centre was held on 24th October 2017 in conference room of NDTB Centre under the chairmanship of Dr. V.K. Arora. Various issues related to general administration were discussed. The annual report and budget estimates were approved.
12. A meeting to finalise the scientific programme of 72nd NATCON was held in TB Association of India on 2nd November 2017 and 17th November 2017. Dr. K.K. Chopra, Director attended the meeting as the member of scientific committee to finalise the programme.
13. A sub-committee meeting of Delhi TB Association was held on 28th February 2017 to discuss the issues regarding maintenance of their building. Dr. K.K. Chopra, Director participated as one of its member.
14. A meeting for selection of ACSM material for publicity in Delhi state and activities to be carried out for TB Awareness was held in Office of State TB Officer on 1st March, 2018. Representatives from NRHM and DGHS also attended the meeting.
15. The Central Committee Meeting of TB Association of India was held on 26th April 2018. Dr. K.K. Chopra, Director attended the said meeting as its member.
16. The Annual General Meeting of TB Association of India was held on 26th April 2018. Dr. K.K. Chopra, Director and faculty members of NDTB Centre attended the said meeting.

CLINICAL SECTION

The Clinical Section is an integral part of NDTB Centre since 1940, when it was started as a Model TB Clinic. Its primary goal is to provide quality medical care and treatment to all patients. In addition to catering to the patients of its designated area, it is reputed as a Super-specialty referral OPD for all complicated and difficult cases within the State and neighbouring states of Delhi.

Although, it is an OPD within a State-level TB Centre, we have a vast influx of patients with diverse pulmonary conditions, ranging from Asthma, COPD, Pneumonia, ILD, Pulmonary hydatidosis and Malignancy, along with all cases of undiagnosed extra pulmonary TB as well. We have an OPD running from 9:00 am to 1:00 pm daily and are fully supported by our radiology, pharmacy, medical social worker and laboratory services.

In the last 5 years, there has been more than a 100% rise in the OPD attendance, with a total of 22,599 patients seen and managed. This year the clinical section is dedicated to provide efficient and prompt services to improve the well being of the community.

A special COAD clinic is run by the clinical section. It provides solutions and relief to patients of airway obstruction on an OPD basis. There has been a four-fold increase in the number of patients managed in the last 5 years (total of 1022).

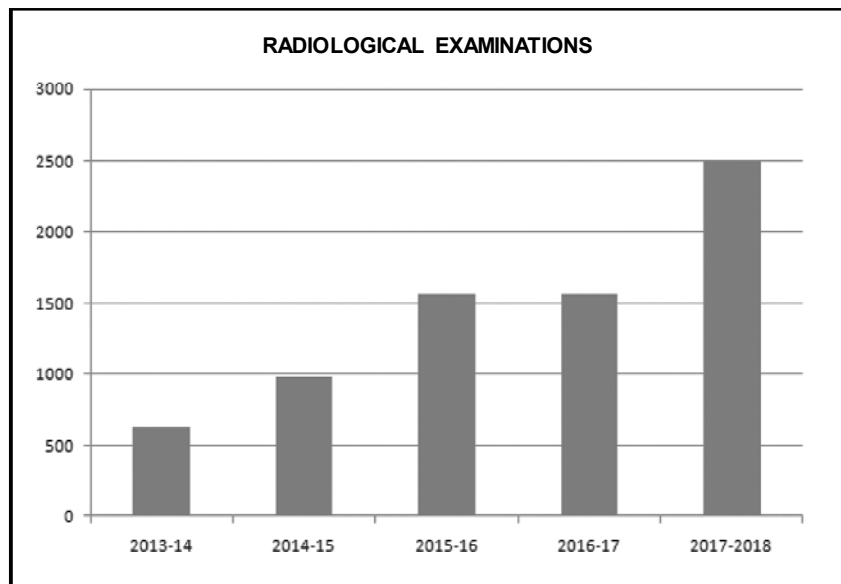
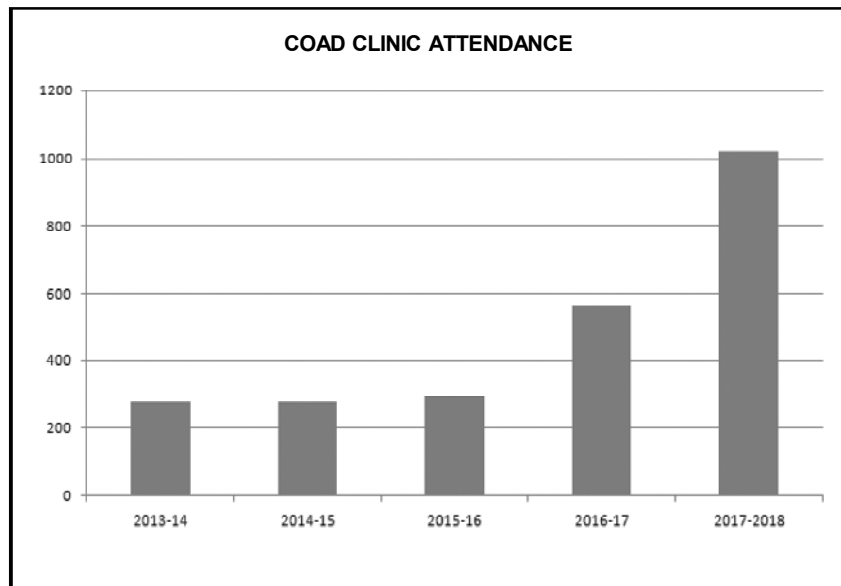
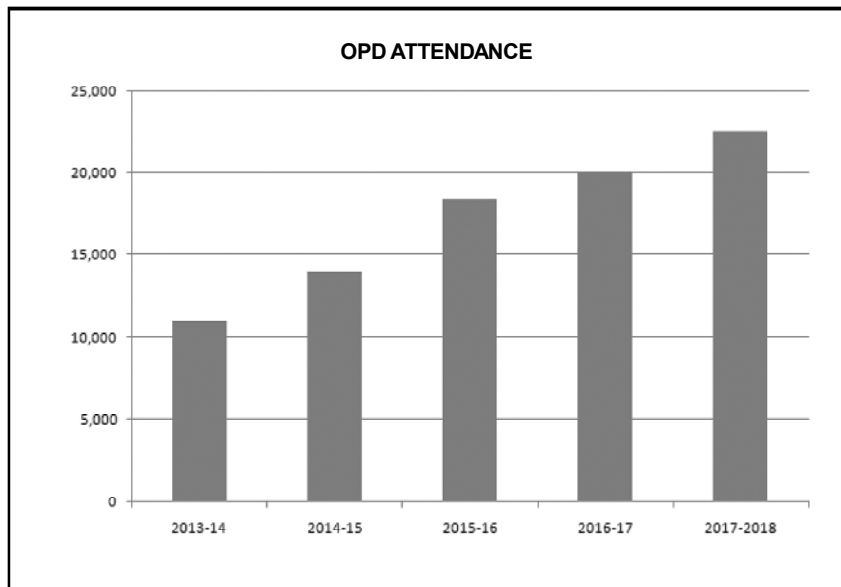
In addition to patient care, the clinical section has a key role in providing hands-on training and teaching to medical and para-medical staff, with opportunities for professional development. In the last one year, 220 interns and 171 MBBS under-graduate students have been trained here. They attended regular teaching activities, including 48 seminars and 210 clinical case discussions. All basic skills of history-taking, clinical examination, interpretation of chest X-ray and all relevant diagnostic tests and treatment skills were imparted to them. Furthermore, 3 batches of TB Supervisor Course comprising of 60 students have also been given training in patient management, by the Clinical Section.

Total New OPD Attendance during the year (April 2017 to March 2018)

S.No.	Month	Male	Female	Total
1.	April'17	382	502	884
2.	May'17	456	626	1082
3.	June'17	380	663	1043
4.	July'17	561	637	1198
5.	August'17	395	627	1022
6.	September'17	311	485	796
7.	October'17	368	487	855
8.	November'17	378	564	942
9.	December'17	335	478	813
10.	January,18	402	582	984
11.	February'18	334	587	921
12.	March'18	407	588	995
	Total	4709	6826	11535

Last 5 years OPD attendance in the clinical section at NDTB Centre

SL. NO.	YEAR	OPD ATTENDENCE			SPECIAL OPD (COAD)	X-RAY
		NEW OPD	RE-VISITS	TOTAL		
1	2013-14	6,396	4,610	11,006	277	621
2	2014-15	7,843	6,144	13,987	277	980
3	2015-16	9,828	8,572	18,400	296	1,565
4	2016-17	10,157	9,895	20,052	562	1,561
5	2017-18	11,535	11,064	22,599	1,022	2,505



The following is list of seminars conducted during 2017-18 on various topics for various batches.

CLINICAL SKILLS

1. Clinical Aspects to be considered in Respiratory Diseases
2. Differentials of Chronic Cough – how to make a Diagnosis
3. Differentials of Breathlessness
4. Hemoptysis – Causes and management
5. Radiological presentation of TB –Active and Inactive Disease

TUBERCULOSIS

6. Diagnostic tests of TB – Infection and Disease
7. Current status of Molecular methods of Diagnosing TB
8. Management of TB –RNTCP
9. TB & HIV collaboration
10. Co-existence of TB and Diabetes
11. Hepatotoxicity of ATT
12. Adverse Drug Reactions of TB Treatment
13. Multi Drug Resistance – Diagnosis and Management
14. XDR –TB
15. CNS TB
16. Abdominal TB
17. TB in Infertility

COPD & ASTHMA

18. Acute Respiratory Tract Infections
19. Asthma- Clinical features
20. Asthma and its management
21. Role of beta-agonists in Asthma
22. COPD –Emphysema and chronic bronchitis
23. Recent advances in COPD
24. Pneumonias
25. Pulmonary Function Testing
26. Cardiopulmonary Exercise Testing

OTHER RESPIRATORY DISEASES

27. Pleural effusions
28. Empyema
29. Pneumothorax
30. Thoracocentesis in pleural diseases:- Diagnostic and Therapeutic
31. Lung Abscess
32. Pulmonary Infections in Immuno comprised Host
33. Pulmonary hypertension

34. Corpulmonale
35. Respiratory Failure
36. Pulmonary thrombo embolism
37. Hazards of smoking and Air Pollution
38. Inhalational treatment and Devices
39. Bronchiectasis
40. Occupational Lung Disease
41. Neuromuscular & chest wall disease
42. Bronchiolar disease
43. Diagnosis of sleep-disordered breathing
44. Lung Involvement in SLE
45. Lung Involvement in Rheumatoid Arthritis
46. Recent advances in Lung Cancer- Diagnosis and Staging
47. Recent advances in Lung Cancer Management
48. Interstitial Lung Disease.

Radiological Examination

Table below gives month-wise distribution of radiological examination done during 2017-18

S. No.	Month	X-Rays OPD	X-Rays Staff OPD	X- Rays for cases refd. by NGOs	X-Rays ACD Epidemiology	X-Rays Medical Examinations	Total X-rays done
1.	April17	108	19	42	8	-	177
2.	May17	142	5	36	4	-	187
3.	June17	100	6	19	17	-	142
4.	July17	253	21	35	5	-	314
5.	August17	120	4	5	29	35	193
6.	September17	111	8	17	30	-	166
7.	October17	231	3	10	5	-	249
8.	November17	182	30	8	5	-	225
9.	December17	197	2	4	5	-	208
10.	January18	160	6	4	34	36	240
11.	February18	184	4	-	5	-	193
12.	March18	195	1	-	5	-	201
	Total	1993	109	180	152	71	2505

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 presumptive cases, 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 84 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	63
Cat II	16
Pediatric cases	5
Total	84

EPIDEMIOLOGICAL SECTION

Epidemiology section is involved in various activities round the year including involvement in research projects, monitoring and supervision of various chest clinics conducted by the State TB cell and to conduct/facilitate training sessions for various health personnel which include ground level staff, nursing personnel as well as Medical officer/private practitioners.

Following activities were conducted during the year by the section:

(A) Active Case Finding Campaign

One of the activities undertaken by the Epidemiology department was to conduct Active case finding campaign of TB cases in Delhi state. Active case finding campaign through house to house survey, for search of TB symptomatics was proposed by Central TB Division in January 2017. This was a national level activity being implemented successfully throughout the country. This was a 2 weeks activity which was conducted thrice in this year 2017. 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 sensitized for this activity. They were also asked to do mapping of their respective areas specifically targeting slum population, construction sites, prisons and night shelters for this activity. A format was designed by CTD 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 of 2 or more weeks duration/fever etc) an on the spot sputum sample was collected by the team and the patient was convinced to come to the centre to provide second sputum sample. Mobile numbers of symptomatics 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 DTOs 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 was conducted in the month of July and December 2017. During these months, campaign activity was conducted on similar lines taking into consideration the problems encountered in the previous survey.

Results of the activity

Total population	Number of persons screened with symptoms	Number of patients whose sputum was examined	Number of patients diagnosed
1380622	228306	2857	254

(B) SMS for Sure project

SMS for sure project was undertaken by NDTB in the year 2015 with the aim of assessing the impact of SMS on TB treatment adherence. For this project, IT company has been employed. The aim of this project was to assess whether SMS had any role in decreasing LTFU among TB patients.

The activities involved:

- 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 the first few days.
- A toll free number has been initiated for the benefit of DOT providers
- The process: 6000 newly diagnosed patients were randomised into 3 groups by the server. *Group 1 receive enrolment conformation SMS, weekly motivational SMS and a reminder SMS, as and when they miss a dose. Group 2 patients receive enrolment conformation SMS, a reminder SMS when they miss a dose. Group 3 patients not receive any SMS except the study enrolment conformation SMS.*

- The project was successfully completed and results were disseminated to the state level as well as other agencies involved

➤ **Results of the study are as follows :**

1. Overall 5667 patients completed treatment successfully.
2. Default and failure rates were lowest in test group 1 as compared to test group 2 and 3. This may be attributed to a weekly motivational SMS and a reminder SMS when they miss their dose in test group 1. It may be convincingly stated that SMS as well as motivational messages did play a role in reducing missed dose, defaults as well as failures.
3. Transferred Out and MDR patients were less in test group 1 as compared to 2 and 3
4. Deaths were higher in group 1 and 2 as compared to group 3.
5. Missed doses were higher in group 1 and 2 (24 missed doses) as compared to group 3 (21 missed doses). Maximum number of missed doses were observed in test group 23 followed by test group 3 (29) and test group 1 (32). Maximum number of missed doses was in the month of February-April 2016.
6. Intensive counselling before enrolling the patients in the study may have contributed significantly in reducing missed doses. Hence counselling has to be a vital part of the programme.
7. 8 patients in test group 1, 10 patients in test group 2 and 8 patients in test group 3 missed more than 1 dose (range 1-8) during their treatment. Hence no difference was observed as far as trend of missing the dose in all the groups was concerned.
8. Success rate was higher; default rate and failure rate were lower in the project.

Outcome	State level 2016	SMS for sure project
Treatment success	86.3	94.4
Default	5.5	2.2
Failure	2.3	0.8
Death	2.5	1.2

It may be concluded that SMS had a major role to play in successfully completing treatment. This was more prominent in group 1 and 2. Though group 3 did not receive any messages counselling before enrolling the patients in the study may have played a role. Home visits by DOT provider should continue to be an integral part of the programme. Both, the home visits as well as the mobile technology should be an integral part of the programme. This would achieve favourable results in the long term.

Compilation of mini booklet on TOG guidelines

A mini booklet on recent TOG guidelines was compiled by the section for general dissemination among MOs. Idea behind this was to disseminate Guidelines which may be kept on the table and can be used on day to day basis for diagnosis as well as treatment.

Involvement of corporate sector

The section is also involved in approaching corporate sector. Under this component stakeholders of corporate sector are involved. Aim of this activity is to sensitize the staff of the organization and train them about the disease and the RNTCP programme and to make them aware about the services and the place where they can avail them (Nearby DOT centres/chest clinics and free of charge services being offered). The Epidemiology section officials visited Oriental health insurance stakeholders as well as other agencies and talks are ongoing to sensitize their workers.

Screening of Staff from National Zoological Park

Every year, staff persons from various organizations visit the New Delhi Tuberculosis Centre. These include staff from various embassies and other organizations. This year 71 staff persons from National Zoological Park, New Delhi visited the New Delhi Tuberculosis Centre. They were screened for tuberculosis and advised accordingly.

ECHO clinic

Echo is a web based video conference platform which is being used in Delhi by all chest clinics including the state TB cell. During these clinics, DTOs from all chest clinics get connected via video conference and discuss various aspects of TB programme like case presentations/recent updates etc. This activity has been highly successful in the last one year. Every week ECHO clinics are held. All sections of the NDTB centre including the Epidemiology section are involved in facilitating/ conducting the clinic from time to time.

PUBLIC HEALTH SECTION

Public health section is one of the departments of New Delhi Tuberculosis Centre. This department is involved in various activities including various public health interventions undertaken from time to time.

Health talk

Health talk is one of the major activity through which all kind of 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 almost 100 plus patients visit every day.

TB awareness

TB awareness is generated by using placards which are being displayed from time to time. 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 Supervisory Course

The Public Health section in association with clinical section is also undertaking the TB Supervisor course. It is a three month duration course whereby students from various parts of the country are selected .The course covers various aspects of Tuberculosis whereby teaching, practical training, field visits and demonstrations. are an integral part of the training. The students are rotated in various departments of the Centre which include the epidemiology section, clinical section, DOTS centre and Mantoux room. They are also involved in various activities of the Centre like giving health talk to patients to build up their confidence, counselling patients etc. At the end of the course, a practical as well as a theory examination is taken and after successful completion of the course, students are awarded a TBHV completion course certificate. The course accredited by the RNTCP. During the year 2017-2018, four batches took TB Supervisor Training. The total strength of the students were 68. During the 3 months period students were sensitized about:

- Tuberculosis
- RNTCP
- General aspects about TB including community based interaction

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 2017 to March 2018, 9243 mantoux test were done at the NDTB Centre. Out of these, results of 8119 patients were available. Month-wise Mantoux screening undertaken is as follows:

Month 2017-18	Total test	Test read	Reactors (>10mm)	Non Reactors (<10mm)
April'17	740	653	349	304
May'17	829	740	365	375
June'17	828	729	360	369
July'17	856	761	310	451
August'17	829	714	223	491
September'17	745	646	280	366
October'17	610	503	215	288
November'17	833	733	312	421
December'17	655	573	278	295
January,18	735	654	296	358
February'18	792	710	320	390
March'18	791	703	301	402
Total	9243	8119	3609	4510

Anti TB Week Celebration

Every year, NDTB Centre celebrates anti TB week to mark the occasion of World TB Day i.e. on 24th March. This year NDTB Centre had widened its wings and performed different activities outside the premises and conducted activities on a larger scale as compared to previous years.

The new activities introduced this year were:

- a) Flash mob at metro stations
- b) Nukkad natak
- c) TB rally
- d) TB Library
- e) Daily stage show

Flash mob activity was conceptualized, choreographed and executed by the TB supervisor students.

On following metro stations the flash mob activity was conducted :

- a) Rajiv Chowk
- b) Mandi House
- c) Delhi Gate
- d) Darya Ganj

A flash mob is an awareness generating activity where any dance with music is performed by group of people. The idea is to give a social message to the collected group and attract audience. The whole event was posted on You Tube.

We also had nukkar natak. Nukkad Natak along with TB library display at the following centres

- a. LNJP in front of chest clinic
- b. Dental college waiting hall
- c. Daryaganj
- d. A rally was held at Old Delhi area on 22.3.2018 by TB Supervisor Students holding the panels containing TB information in the area to generate awareness.
- e. We also made placards covering various aspects of TB.

In House Programme:

- **Painting Competition:** On 19.3.2018 a painting competition was organised with SPYM inmates and Bachon ka Ghar inmates. These are two NGOs working in the field of child care. These paintings were displayed in our OPD hall for patients visiting the centres as well as general audience
- **Daily Stage Show:** On daily basis we had organised stage shows where different cultural programmes were presented by the students. Useful tips were also given to patients attending the OPD e.g. how to cook healthy food, treatment adherence, management of ATT drugs etc.

Sensitization programme

Under Active Case Finding campaign we have sensitized the staff working in night shelters of SPYM all over Delhi. Places visited were:

- a. Sarai Kale Khan on 19.9.2017
- b. Asaf Ali Road on 21.9.2017
- c. Rajouri Garden on 14.9.2017
- d. Near Delite Cinema on 15.9.2017

Activities carried out by New Delhi TB Centre on occasion of World TB Day Celebration 2018

Each year we recognise World TB Day on 24th March with a variety of activities. This annual event commemorates the date in 1882 when Dr. Robert Koch announced his discovery of Mycobacterium tuberculosis, the bacillus that causes tuberculosis.

“Wanted: Leaders for a TB-Free World”, this slogan goes with the theme. The slogan theme encourages people all over the world from the youngest to oldest to make an individual call for the elimination of TB.

Every year, New Delhi Tuberculosis Centre organises various programmes with the patients and community. This year ANTI TB WEEK was celebrated from 10th March to 24th March 2018. This year we have expanded our wings and performed various activities listed below:

S. No.	Date	Activities planned/ Name of the Activity	Description/ Brief
1	19.3.2018	Painting Competition	Children from SPYM and Bachon Ka ghar, Daryaganj, Delhi were invited for painting competition.
2	20.3.2018	Flash mob at Rajeev Chowk and Mandi House Metro Station	It was an awareness generating activity by using TB flash board to sensitize the community
3	21.3.2018	Nukkad Natak	Nukkar Natak on TB was performed by our student at LN Chest Clinic
4	21.3.2018	Nukkad Natak	Flash mob activity was performed at Kashmiri Gate metro station
5	22.3.2018	TB Rally	A rally was held at old Delhi area with the help of students and flash board. We also halted at three destinations and performed Nukkard Natak, Health talk and Flash mob activity.
6	23.3.2018	TB Library display	TB flash boards were displayed/explained by the students to the audience of Dental OPD of LN Hospital.
7	24.3.2018	Prize distribution (painting competition)	The winners were awarded prizes at the valedictory function held at NDTB Centre
8	19.3.2018 to 23.3.2018	Daily stage show at NDTB Lawns	Daily between 11.00 a.m. To 12.00 noon different stage shows were conducted on various aspects of TB.

Community meetings and health talk

Date	Event	Participants
31.5.2017	On World Tobacco Day, TB Supervisor students visited SPYM NGO and delivered a talk on harmful effects of smoking and tobacco for inmates	Inmates of SPYM, Daryaganj
5.6.2017	On World Environment Day all the staff members were requested to plant a tree near their residences and send the photograph to the office for record	Staff NDTBC
6.6.2017	A community meeting was organised at Balmiki basti cluster near Ferozshah Kotla stadium to sensitize resident of Balmiki basti about TB.	Balmiki basti residents
12.8.2017	A poem competition was organised at Bachon ka Ghar on Youth Day. The topic was on rights of youth and contribution of youths in country's development	Inmates of Bachon ka Ghar
20.11.2017	77 th annual day was celebrated at NDTB Centre. On this occasion various awareness activities were organised followed by cultural programme by TB supervisor students.	HV students and staff
24.3.2018	Anti TB week was celebrated and various outdoor activities were organised.	Staff and HV students
1.12.2017	A health talk was organized in main OPD hall to sensitize visitors about HIV and AIDS.	Staff and HV students

MYCOBACTERIAL LABORATORY

The laboratory is certified as Intermediate Reference Laboratory by Central TB Division, Ministry 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, 2017 (District Wise)

District	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
BJRM	7015	607	39	5	1824	45	15928	1219	14709
GTBH	8350	1055	12	0	1881	128	18547	2223	16324
HEDGEWAR	4541	569	35	3	584	62	9732	1210	8522
KCC	7212	665	8	1	2296	104	16635	1416	15219
LNH	8981	754	16	2	638	53	18637	1565	17072
JHANDEWALAN	1904	327	2	1	884	82	4678	713	3965
SPM MARG	4945	470	12	2	838	50	10597	992	9605
SHAHDARA	5642	842	255	2	2054	234	13527	1931	11596
PATPARGANJ	11706	1508	159	1	3412	209	26594	3108	23486
RKM	2590	331	87	11	613	53	5885	690	5195
NEHRU NAGAR	13170	1670	32	6	4983	383	31352	3664	27688
MOTI NAGAR	10337	1306	88	15	3420	199	23117	2828	20289
RTRM	8133	872	22	3	1851	204	18545	1984	16561
NARELA	6939	976	0	0	2358	164	17255	2124	15131
K. NAGAR	5798	956	20	3	2812	211	14400	2096	12304
NDMC	19632	2080	22	2	2730	174	42034	4319	37715
BSA	6307	834	51	5	2075	176	14373	1814	12559

DDUH	9821	1195	92	9	3075	207	22716	2563	20153
GULABI BAGH	2919	259	4	40	603	33	6355	520	5835
LRS	6906	752	15	0	1950	99	15586	1590	13996
SGMH	6092	756	4	0	2207	72	13978	1498	12480
SHASTRI PARK	5945	839	54	9	2974	289	14624	2010	12614
DESHRAJ	6548	771	59	8	1815	134	15058	1646	13412
MALVIYA NAGAR	4796	692	0	0	2476	342	12079	1728	10351
BIJWASAN	5596	537	34	3	1870	190	13113	1208	11905
DTB'S PAVEMENT DWELLERS PROJECT- CHANDNI CHOWK (SPECIAL PROJECT UNDER STO)	457	113	0	0	113	5	1027	231	796
Total	182282	21736	1122	131	52336	3902	416372	46890	369482

During the year, a total of 1,82,282 TB suspects were examined for diagnosis in all 25 chest clinics of Delhi state out of which 21,736 were found positive. As per data received from TB laboratory abstract, 4,16,372 slides were examined. Out of these 46,890 slides were found positive. A total of 3,69,482 slides were found negative.

Gene Sequencing

Whole Genome Sequencing (WGS) facility has been introduced in our laboratory. With exponentially decrease in cost, WGS is increasingly becoming the preferred technique for TB research. WGS is used to determine the complete DNA sequence of an organism's genome at a single time and can provide several answers at a single time, making it the ideal tool for studying the pathogen. Large-scale WGS has been applied to different aspects of TB research; to study chains of transmission, disease outbreaks and also to infer phylogeny. Furthermore, WGS can be used to identify drug-resistance associated mutations and mutations compensating for the fitness defect associated with rifampicin resistance.

Accreditation

The laboratory of New Delhi Tuberculosis Centre has applied for accreditation by National Accreditation Board for Testing and Calibration Laboratories (NABL). NABL is a constituent Board of Quality Council of India (QCI) and Government of India is the nodal Department for QCI. The laboratory accreditation services are provided in accordance with ISO 15189: 2012 'Medical laboratories — Requirements for quality and competence'.

Formal accreditation of laboratory by NABL in accordance with international criteria has many advantages such as increased confidence in Testing/ Calibration Reports issued by the laboratory, better control of laboratory operations and feedback to laboratories as to whether they have sound Quality Assurance System and are technically competent and potential increase in business due to enhanced customer confidence and satisfaction.

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

Sr. No.	Chest Clinic	Visit date
1	GTBH Chest Clinic	17-02-2017
2	Hedgewar Chest Clinic	27.02.2017
3	Ch. Deshraj Chest Clinic	29.03.2017
4	R.K. Mission Chest Clinic	27-04-2017
5	Kingsway Camp Chest Clinic	28-04-2017
6	Jhandewalan Chest clinic	01-05-2017
7	Patparganj Chest clinic	08-05-2017
8	BJRM Chest clinic	11-05-2017
9	LNH Chest Clinic	12-05-2017
10	BSA Chest Clinic	20-07-2017
11	Karawal Nagar Chest Clinic	24-07-2017
12	Malviya Nagar Chest Clinic	30-11-2017
13	Narela Chest Clinic	29-11-2017
14	Gulabi Bagh Chest Clinic	06-12-2017
15	Bijwasan Chest Clinic	07-12-2017
16	Pilikothi Chest Clinic	08-12-2017

17	Shastri Park Chest Clinic	13-12-2017
18	SGMH Chest Clinic	14-12-2017
19	RTRM Chest Clinic	18-12-2017
20	Shahdara Chest Clinic	19-12-2017
21	NITRD Chest Clinic	20-12-2017

Programmatic Management of Drug Resistant Tuberculosis (PMDT) Activities

The laboratory got certification by Central TB Division 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 2017– March 2018 (Specimens processed on culture or DST)

Quarter 2017 - 2018	Diagnostic Sputum Specimens processed	Follow-up Specimens processed	LPA DST processed	H+R Sens	H+R Res	Only H Res	Only R Res
2QTR	1633	2012	1272	1001	132	118	21
3QTR	1856	1719	1140	904	127	93	16
4QTR	776	1822	688	528	95	47	18
1QTR	1463	1943	1143	872	108	106	21
TOTAL	5728	7496	4243	3305	462	364	76

The table provides details of laboratory tests done under PMDT activities during the year 2017-18. A total of 4243 sputum specimens were processed out of which 462 cases turned out to be MDR-TB and 76 cases were Rifampicin mono resistant.

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 working under RNTCP (Dot Provider, STS, DEO, Laboratory Technician, Sr. Laboratory Technician, 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, 154 days of training sessions were conducted wherein 2749 personnel were trained regarding various aspects of the RNTCP which includes 99 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:

**Table: Details of Trainings/ Sensitization held at New Delhi TB centre (STDC)
from 01st April 2017 to 31st March 2018**

S. No.	Detail of Training	Period		Days	No. of Participants
1	Three days Technical and operational guidelines training for District TB officers	05.04.2017	07.04.2017	3	33
2	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College (Batch-I)	12.04.2017	12.04.2017	1	28
3	Three days Technical and operational guidelines training for Medical officers	21.04.2017	24.04.2017	3	23
4	One day RNTCP sensitization for Nursing Students of LHV from Lady Reading Health School of Nursing	21.04.2017	21.04.2017	1	20
5	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	22.04.2017	22.04.2017	1	19

6	Ten Days RNTCP Modular Training programme for Lab. Technicians working under Delhi Government Dispensaries	24.04.2017	04.05.2017	10	11
7	Three days Technical and operational guidelines training for Medical officers	26.04.2017	28.04.2017	3	24
8	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	28.04.2018	28.04.2017	1	23
9	One day training for Data Entry operators and statistical assistants regarding Nikshay entries under RNTCP	01.05.2017	01.05.2017	1	31
10	Two days RNTCP sensitization of Nursing Students from Lady Reading Health School of Nursing	02.05.2017	03.05.2017	2	40
11	Two days Technical and operational guidelines training for STS and STLS under RNTCP	03.05.2017	04.05.2017	2	24
12	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	07.05.2017	07.05.2017	1	10
13	Two days Technical and operational guidelines training for STS and STLS under RNTCP	08.05.2017	09.05.2017	2	20
14	Two days Technical and operational guidelines training for DOT Plus Supervisors under RNTCP	11.05.2017	12.05.2017	2	24
15	Two days Technical and operational guidelines training for STS and STLS under RNTCP	15.05.2017	16.05.2017	2	22
16	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	16.05.2017	16.05.2017	1	10
17	Ten Days RNTCP Modular Training programme for Lab. Technicians working under Delhi Government Dispensaries	22.05.2017	01.06.2017	10	10

18	Two days Technical and operational guidelines training for STS and STLS under RNTCP	25.05.2017	26.05.2017	2	22
19	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	26.05.2017	26.05.2017	1	3
20	One day Technical and operational guidelines training for Lab. technicians under RNTCP	29.05.2017	29.05.2017	1	53
21	One day Technical and operational guidelines training for Lab. technicians under RNTCP	30.05.2017	30.05.2017	1	55
22	One day Technical and operational guidelines training for Lab. technicians under RNTCP	01.06.2017	01.06.2017	1	52
23	One day Technical and operational guidelines training for Lab. technicians under RNTCP	02.06.2017	02.06.2017	1	48
24	One day Technical and operational guidelines training for TBHV/DOT Providers under RNTCP	05.06.2017	05.06.2017	1	64
25	One day Technical and operational guidelines training for TBHV/DOT Providers under RNTCP	06.06.2017	06.06.2017	1	65
26	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	07.06.2017	07.06.2017	1	23
27	One day ECHO Clinic on New Diagnostic algorithms as per TOG and discussion on findings of IRL OSE visits to DTCs under RNTCP	07.06.2017	07.06.2017	1	225
28	One day Technical and operational guidelines training for TBHV/DOT Providers under RNTCP	08.06.2017	08.06.2017	1	69
29	One day Technical and operational guidelines training for ANM/TBHV/DOT Providers under RNTCP	09.06.2017	09.06.2017	1	58

30	One day RNTCP sensitization for Nursing Students of LHV from Lady Reading Health School of Nursing	09.06.2017	09.06.2017	1	23
31	One day Technical and operational guidelines training for Medical officers under RNTCP	12.06.2017	12.06.2017	1	38
32	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	14.06.2017	14.06.2017	1	25
33	One day Technical and operational guidelines training for Medical officers under RNTCP	15.06.2017	15.06.2017	1	32
34	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	17.06.2017	17.06.2017	1	10
35	One day Technical and operational guidelines training for Medical officers under RNTCP	20.06.2017	20.06.2017	1	28
36	One day Technical and operational guidelines training for Medical officers under RNTCP	22.06.2017	22.06.2017	1	24
37	One day Technical and operational guidelines training for Medical officers under RNTCP	27.06.2017	27.06.2017	1	27
38	One Day Training on Active Case Finding programme in High Risk Group (IDU) under RNTCP	28.06.2017	28.06.2017	1	25
39	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	28.06.2017	28.06.2017	1	9
40	Two days re-training of Lab Technician under RNTCP programme	29.06.2017	30.06.2017	2	1
41	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	04.07.2017	04.07.2017	1	10

42	One day RNTCP sensitization for Nursing Students from Lady Reading Health School of Nursing	12.07.2017	12.07.2017	1	43
43	One day review meet on PMDT and sensitization on new diagnostic indicators on TOG under RNTCP	14.07.2017	14.07.2017	1	38
44	One day training programme on daily regimen under Technical and operational guidelines programme under RNTCP	21.07.2017	21.07.2017	1	45
45	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	24.07.2017	24.07.2017	1	10
46	One day RNTCP Review meet of Delhi State and sensitization of monitoring indicators under RNTCP	26.07.2017	26.07.2017	1	35
47	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	07.08.2017	07.08.2017	1	25
48	One day RNTCP Sensitization programme for medical students of Maulana Azad Medical College	15.08.2017	15.08.2017	1	24
49	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	18.08.2017	18.08.2017	1	10
50	One day RNTCP sensitization of Nursing Students from Lady Reading Health School of Nursing	26.08.2017	26.08.2017	1	70
51	One day RNTCP sensitization for Nursing Students from Lady Reading Health School of Nursing	26.08.2017	26.08.2017	1	20
52	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	28.08.2017	28.08.2017	1	10
53	Ten Days RNTCP Modular Training programme for Lab. Technicians working under Delhi Government Dispensaries	04.09.2017	14.09.2017	10	10

54	One day refresher training for medical officers on TB-HIV collaborative activities under RNTCP	13.09.2017	13.09.2017	1	34
55	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	13.09.2017	13.09.2017	1	10
56	One day refresher training for medical officers on TB-HIV collaborative activities under RNTCP	15.09.2017	15.09.2017	1	35
57	One day of Staff Nurses/ counsellors/ Pharmacists of ART centres for TB-HIV refresher training under TB-HIV collaboration activities under RNTCP	21.09.2017	21.09.2017	1	36
58	One day TB-HIV refresher training for Staff Nurses/ counsellors/Pharmacists of ART centres under TB-HIV collaboration activities	22.09.2017	22.09.2017	1	29
59	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	26.09.2017	26.09.2017	1	9
60	One day workshop by central TB Division on comprehensive assessment of the TB laboratory diagnostic network	06.10.2017	06.10.2017	1	19
61	One day RNTCP sensitization programme for Nursing Students of 2nd year GNM	11.10.2017	11.10.2017	1	33
62	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	12.10.2017	12.10.2017	1	10
63	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	16.10.2017	16.10.2017	1	10
64	One day RNTCP Sensitization programme for medical Students of Maulana Azad Medical College	23.10.2017	23.10.2017	1	22
65	One day RNTCP Sensitization programme for medical Students of Maulana Azad Medical College	26.10.2017	26.10.2017	1	2

66	One day RNTCP Sensitization programme for medical interns of Maulana Azad I Medica College	01.11.2017	01.11.2017	1	10
67	One day sensitization programme for Lady Health Visitors of Lady Reading Health School Bara Hindu Rao under RNTCP	02.11.2017	02.11.2017	1	21
68	One day quarterly meets with DTOs and sensitization on roll out of newer diagnostic algorithms and daily DOTS	13.11.2017	13.11.2017	1	32
69	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	16.11.2017	16.11.2017	1	10
70	Two Days Training programme of Medical officers on DVDMS under RNTCP	29.11.2017	30.11.2017	2	30
71	Two Days Training programme of Medical officers and DEOs on DVDMS under RNTCP	04.12.2017	05.12.2017	2	33
72	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	05.12.2017	05.12.2017	1	10
73	Two days sensitization workshop on tuberculosis programme in India under RNTCP for SAARC delegates	05.12.2017	06.12.2017	2	9
74	One Day Training programme for STS on DVDMS under RNTCP	06.12.2017	06.12.2017	1	44
75	One day sensitization programme for Nursing Students of 3rd year GNM under RNTCP	08.12.2017	08.12.2017	1	57
76	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	16.12.2017	16.12.2017	1	9
77	One Day Training programme of Medical officers on DVDMS under RNTCP	19.12.2017	19.12.2017	1	25
78	One day sensitization programme for Nursing Students under RNTCP	20.12.2017	20.12.2017	1	27
79	One Day Training programme of DOT Plus Supervisors on DVDMS under RNTCP	21.12.2017	21.12.2017	1	33

80	One Day Training programme of DOT Plus Supervisors on DVDMS under RNTCP	27.12.2017	27.12.2017	1	30
81	One day training of STLS on CBNAAT under RNTCP	03.01.2018	03.01.2018	1	7
82	One day training of STLS on CBNAAT under RNTCP	04.01.2018	04.01.2018	1	10
83	One day training of STLS on CBNAAT under RNTCP	05.01.2018	05.01.2018	1	10
84	One day training of Lab Technician on infection control measures in TB laboratory	06.01.2018	06.01.2018	1	2
85	One day training of STLS on CBNAAT under RNTCP	08.01.2018	08.01.2018	1	11
87	One day training of STLS on CBNAAT under RNTCP	09.01.2018	09.01.2018	1	10
88	One day review of GLRA Projects in Delhi State	09.01.2018	09.01.2018	1	18
89	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	16.01.2018	16.01.2018	1	10
90	One day sensitization on PIP preparation for DTOs and quarterly review meet	18.01.2018	18.01.2018	1	32
91	One day CME on TB dissemination meeting under RNTCP	23.01.2018	23.01.2018	1	60
92	One day sensitization workshop on tuberculosis programme under RNTCP for Nursing Students of Nightingale	24.01.2018	24.01.2018	1	44
93	One day meeting on operational research under RNTCP	30.01.2018	30.01.2018	1	44
94	Three days sensitization workshop on tuberculosis programme under RNTCP for Nursing Students of Nightingale	03.02.2018	04.02.2018	2	40
95	One day RNTCP Sensitization programme for medical interns of Maulana Azad Medical College	12.02.2018	12.02.2018	1	50

96	One day sensitization workshop on tuberculosis programme in India under RNTCP for Foreign delegates	09.03.2018	09.03.2018	1	9
97	Two Days training of DTOs on new guidelines under revised PMDT programme	15.03.2018	16.03.2018	2	26
98	Ten days Initial Modular training of Lab. Technicians of Medical college and Delhi Government Dispensaries	19.03.2018	31.03.2018	10	11
99	One Day training for DOT Plus Supervisors on new guidelines under revised PMDT programme	28.03.2018	28.03.2018	1	25
	Total			154	2749

Month wise Details of Trainings/ Sensitization during 2017-18 held at New Delhi TB Centre (STDC):

Months	DTOs and Med. Officers	STLS	STS	Tech Officers/ Lab. Tech	DRTB & HIV Cord.	DOT Providers	DEO's	Medical Students	Nursing Staff	Total
Apr-17	80	0	0	11	0	0	0	70	20	181
May-17	0	44	44	118	24	0	31	23	40	324
Jun-17	258	45	48	101	23	281	0	67	23	846
Jul-17	73	0	0	0	0	45	0	20	43	181
Aug-17	0	0	0	0	0	0	0	69	90	159
Sep-17	69	0	0	10	65	0	0	19	0	163
Oct-17	19	0	0	0	0	0	0	44	33	96
Nov-17	51	0	0	0	0	0	11	20	21	103
Dec-17	48	33	44	0	30	0	19	19	84	277
Jan-18	137	17	0	32	18	0	0	10	44	256
Feb-18	0	0	0	0	0	0	0	50	40	90
Mar	26	0	0	11	25	9	0	0	0	71
	761	139	136	283	185	335	61	411	438	2749

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.

Table

District wise Annual Performance of RNTCP in Delhi State for the year 2017 from public sector

S. No.	Name of District	Total Population (Lakhs)	Public Sector Notification	Treatment Initiated	Treatment Initiated %	Pulmonary TB%	Extra Pulmonary TB%	Micro Biologically concerned%	Clinically Diagnosed	Pediatric TB %	HIV Status Known %	HIV Status Positive% (of Known)
1	Bijwasan	6.0	1616	1416	88%	59%	41%	49%	51%	11%	78%	1%
2	BJRM	6.0	1717	1393	78%	65%	35%	61%	39%	14%	48%	1%
3	BSA	7.0	2830	2672	94%	56%	44%	38%	62%	12%	57%	1%
4	CD	7.0	2071	1975	95%	61%	39%	45%	55%	14%	55%	1%
5	DDU	12.6	3164	1963	62%	52%	48%	43%	57%	14%	58%	0%
6	GTB	6.6	2432	2363	97%	60%	40%	39%	61%	13%	71%	1%
7	Gulabi Bagh	3.5	903	867	96%	56%	44%	47%	53%	12%	84%	2%
8	Hedgewar	3.0	857	835	97%	55%	45%	59%	41%	11%	1%	0%
9	Jhandewalan	4.0	1234	1172	95%	58%	42%	48%	52%	14%	77%	1%
10	Karawal nagar	8.0	3808	3756	99%	53%	47%	37%	63%	15%	12%	3%
11	KCC	8.0	2187	1865	85%	62%	38%	43%	57%	12%	27%	2%
12	LN H	3.5	1509	920	61%	58%	42%	49%	51%	12%	69%	2%
13	NITRD	7.5	2734	2208	81%	68%	32%	61%	39%	9%	72%	2%
14	MINCH	7.5	2561	2375	93%	61%	39%	46%	54%	12%	56%	1%
15	Moti Nagar	11.1	3470	3459	100%	59%	41%	39%	61%	14%	44%	1%
16	Narela	7.0	2088	2030	97%	66%	34%	47%	53%	12%	84%	1%
17	NDMC	10	4644	2632	57%	59%	41%	47%	53%	15%	70%	1%
18	Nehru Nagar	15.1	5016	4736	94%	56%	44%	36%	64%	14%	1%	2%
19	Parparganj	13.1	3859	3335	86%	57%	43%	39%	61%	15%	18%	0%
20	RK Mission	3.5	605	592	98%	66%	34%	62%	38%	12%	53%	1%
21	RTRM	7.0	1943	1841	95%	63%	37%	52%	48%	10%	26%	2%
22	SGM	7.0	2432	1777	73%	57%	43%	33%	67%	15%	21%	1%
23	Shahdara	6.0	2789	2712	97%	57%	43%	36%	64%	14%	0%	-
24	SPM Marg	4.0	1002	995	99%	59%	41%	41%	59%	13%	63%	3%
25	SPMH	7.6	3241	3138	97%	45%	55%	37%	63%	18%	19%	1%
	Total	181.6	60772	53027	87%	58%	42%	23%	57%	14%	41%	1%

Table gives the district wise TB case Annual Performance of RNTCP for the year 2017 of Delhi State. In a population of 182 lakh, in all 60,772 cases were notified from public sector, of them 53,024 (87%) had been initiated for the treatment. Among these 58% were pulmonary and 42% were extra-pulmonary TB cases. More than half i.e. 57% were microbiological confirmed. Pediatric TB cases were 14%.

Table
District Wise TB Case Notification in Delhi State during 2017.

S. No	Name of Chest Clinic	Public Sector Notification	Public Sector Notification Rate	Private Sector Notification	Private Sector Notification Rate	Total Notification	Annual Total Notification Rate
1	Bijwasan	1616	267	43	7	1659	274
2	BJRM	1717	293	25	4	1802	297
3	BSA	2830	400	379	54	3209	454
4	CD	2071	293	116	16	2187	309
5	DDU	3164	251	150	12	3314	263
6	GTB	2432	370	30	5	2462	375
7	Gulabi Bagh	903	255	47	13	950	269
8	Hedgewar	857	283	19	6	876	289
9	Jhandewalan	1234	305	108	27	1342	332
10	Karawal nagar	3808	471	445	55	4253	526
11	KCC	2187	271	69	9	2256	279
12	LN H	1509	427	300	85	1809	512
13	NITRD	2734	361	815	108	3549	469
14	MNCH	2561	338	301	40	2862	378
15	Moti Nagar	3470	312	311	28	3781	340
16	Narela	2088	295	2	0	2090	296
17	NDMC	4644	460	177	18	4821	477
18	Nehru Nagar	5016	331	294	19	5310	351
19	Parpaganj	3859	294	159	12	4018	306
20	RK Mission	605	171	911	258	1516	429
21	RTRM	1943	275	105	15	2048	290
22	SGM	2432	344	20	3	2452	347
23	Shahdara	2789	460	142	23	2931	484
24	SPM Marg	1002	248	36	9	1038	257
25	SPMH	3241	428	117	15	3358	443
	Total	60772	332	5121	28	65893	360

In all during 2017, 5121 cases were notified from private sector with a notification Annualized total rate of 360. District wise TB case notification during 2017 from Delhi State is given in Table. Total Notification rate from public sector was 332 while from private sector it was 28.

Treatment outcome of New TB patients notified in 2016 from public sector from RNTCP Delhi.

A. Treatment outcome of Microbiological confirmed TB cases

	Registered	Treatment Completed	Cured	Treatment Success	Died	Failure	Lost to Follow-up	Treatment Regimen Changed	Not Reported
Total	14526	2%	83%	85%	3%	3%	6%	2%	2%

B. Treatment outcome of clinically diagnosed TB cases

	Registered	Treatment Success	Died	Failure	Lost to Follow-up	Treatment Regimen Changed	Not Reported
Total	30825	94%	1%	0%	3%	0%	2%

C. Treatment Outcome of HIV Infected TB cases

	PLHIV-TB Registered for Treatment	Treatment Outcome reported	Reporting %	Cure %	Treatment completed %	Treatment Success %	Death %	Failure	Lost to follow Up %	Treatment Regimen Changed
Total	579	238	41%	16%	67%	83%	6%	0%	7%	1%

Table gives the treatment outcome of new TB patients notified during 2016 from public sector. In all 14526 cases were microbiologically diagnosed TB cases were registered in 2016. Of these 83% were cured and 2% had completed their treatment. A total of 30,825 TB cases were registered who were clinically diagnosed in 2016. Among them 94% has successfully completed their treatment. During 2016, a total of 579 PLHIV-TB cases were registered for treatment in various district of Delhi State. Of them treatment outcome of 238 (41%) cases were reported. 83% of them successfully completed their treatment with 16% cure rate and 67% completion rate.

Treatment outcome of Previously treated TB patient notified in 2016 from public sector from RNTCP Delhi

A. Treatment outcome of microbiologically confirmed TB cases

	Registered	Treatment Completed	Cured	Treatment Success	Died	Failure	Lost to Follow-up	Treatment Regimen Changed	Not Reported
Total	6582	69%	2%	71%	6%	4%	10%	6%	3%

B. Treatment outcome of clinically diagnosed TB cases

	Registered	Treatment Success	Died	Failure	Lost to Follow-up	Treatment Regimen Changed	Not Reported
Total	5758	88%	3%	0%	6%	1%	2%

C. Treatment Outcome of HIV Infected TB cases

	PLHIV-TB Registered for Treatment	Treatment Outcome reported	Reporting %	Cure %	Treatment completed %	Treatment Success %	Death %	Failure	Lost to follow Up %	Treatment Regimen Changed
Total	278	113	41%	21%	52%	73%	10%	1%	10%	4%

Table gives the treatment outcome of previously treated TB patients notified in 2016 from public sector from Delhi State. In all 6,582 cases were microbiologically confirmed TB cases were registered for treatment. Of these 71% successfully completed their treatment with a cure rate of 69%. In all 5,758 clinically diagnosed TB cases were registered during 2016 for the treatment. Of which 88% successfully completed their treatment while 278 PLHIV-TB cases were registered for the treatment, only 113 (41%) had reported for the treatment. Among them 73% had successfully completed their treatment with 21% cures rate and 52% treatment completion rate.

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 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 2017-18, faculty from NDTB Centre participated in evaluation of chest clinic as per the following schedule:

Faculty	Date of Visits	Chest Clinic
Dr.K.K.Chopra Dr. Shanker Matta	15 th January, 2018 to 17 th January, 2018	LN Chest Clinic
Dr. Shivani Pawar	31 st January, 2018 to 2 nd February, 2018	Moti Nagar Chest Clinic
Dr. Shanker Matta	12 th February, 2018 to 15 th February, 2018	Malviya Nagar Chest Clinic

(B) PMDT evaluation of IE formats at LN and RK Mission chest clinic

A 3 days activity where internal evaluations of MDR TB formats was undertaken. This was an activity suggested by the Central Tuberculosis Division. LN and RK Mission chest clinic from Delhi State were selected for the evaluation. Under this activity, the new MDR TB formats were used to assess whether they can be freely used for internal evaluations. During the evaluation DTOs from other chest clinics were also involved in this activity.

(C) 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 2017-18, 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	1/5/2017	Jhandewalan Chest Clinic
Dr. Shanker Matta	11/5/2017	BJRM Chest Clinic
Dr. Shanker Matta	12/5/2017	LN Chest Clinic
Dr. Shanker Matta	13/12/2017	Shastri Park Chest Clinic
Dr. Shanker Matta	14/12/2017	SGM 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. 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. A delegation of USAID visited NDTB Centre on 26th September 2017 regarding pediatric CBNAAT project impact assessment. The delegates were briefed about the project, its impact, its expansion and present status of utilization of CBNAAT facility in India.
2. Mr Stephen Lewis a former politician, former diplomat, and a very engaging public speaker from CDC, Geneva visited NDTB Centre on 10th October 2017. The purpose of his visit was to gather information about RNTCP services in Delhi state.
3. A visit was made by a team of national experts from WHO, CTD, FIND and State TB Cell to NDTB Centre regarding preparation of check list for Joint Assessment of Tuberculosis Diagnostic Network of India on 1st November 2017.
4. A visit was made by team of international experts to NDTB Centre regarding Joint Assessment of Tuberculosis Diagnostic Network of India on 4th November 2017.
5. The team from FIND Geneva visited the laboratory of the New Delhi TB Centre on 13th December 2017 to review the impact of FIND activities in laboratory work.
6. Evaluation visit by assessors from NABL for accreditation of NDTB Centre laboratory conducted on 27th February 2018.
7. A team of Stop TB Partnership visited New Delhi TB Centre on 12th March 2018. The team visited the Laboratory of NDTB Centre followed by discussion on Operational Framework of the Program in the Field (New Drugs, ADR, DRTB Patient Management through Case discussions).

(B) GRANTS

- i. During the year 2017-18, the Government of India, Ministry of Health & Family Welfare released the annual recurring Grant-in-aid (Salaries) of Rs.451 Lacs and grant-in-aid (General) of Rs.40 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. 12240/-
Smt. Ram Piyari Dutt Memorial Fund

- Donation, Interest on FDR and saving Bank Account Rs. 41861/-

Total Rs. 54101/-

(D) RIGHT TO INFORMATION ACT 2005

During 2017-18, 34 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 2017-18

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, 17	2	2	-	-	-	-	-
2	May, 17	6	6	-	-	-	-	-
3	June, 17	4	4	-	-	-	-	-
4	July, 17	3	3	-	-	-	-	-
5	August, 17	5	5	-	-	-	-	-
6	Sept, 17	1	1	-	-	-	-	-
7	Oct, 17	5	5	-	-	-	-	-
8	Nov, 17	2	2	-	-	-	-	-
9	Dec, 17	-	-	-	-	-	-	-
10.	Jan, 18	3	3	-	-	-	-	-
11.	Feb, 18	-	-	-	-	-	-	-
12.	March, 18	3	3	-	-	-	-	-
Total	2017-18	34	34	-	-	-	-	-

SUMMARY OF ACTIVITIES OF NEW DELHI TB CENTRE

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

Outpatient Attendance

New outpatients attendance	11535
Revisits	11064
Total outpatients attendance	22599

DOT Centre Attendance

New Patients put on DOTS at NDTB DOT Centre	63
Total Patients (2017-18) put on DOTS at NDTB DOT Centre	84

Special Clinics Attendance

Special clinics (TB and Diabetes, HIV and TB, COAD and Tobacco Cessation Clinic – Total New + old cases	1022
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Laboratory Examinations (April 2017– March 2018)

1	Total laboratory examinations	37,439
2	Smear examinations	20,026
3	Culture examinations	
	a. Solid Culture	2,471
	b. Liquid Culture	8,592
4	Drug susceptibility test	
	a. By liquid culture method	1,979
	b. By LPA	4,152
5	CBNAAT	
	a. Examinations	219*
		(Data from December, 2017 to March, 2018)

Tuberculin skin tests

Total Tuberculin skin tests done	9243
Tests read	8114
Reactors (>10mm)	3609
Non-reactors (<10mm)	4505

Radiological Examinations

Radiological Examinations	2505
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Trainings/IRL Visits/Publications

Personnel trained	2749
Supervision and Monitoring /Internal Evaluation of Chest Clinics	10
IRL Visits to chest clinics for EQA	21
Presentations of papers in conference	4
Research and Publications	8

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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, 2018, 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, 2018 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 : 30.08.2018

**NEW DELHI TUBERCULOSIS CENTRE
BALANCE SHEET AS AT 31ST MARCH, 2018**

	Schedule	As at 31.03.2018	As at 31.03.2017
		(Rs.)	(Rs.)
<u>SOURCES OF FUNDS:</u>			
Assets Fund	1	2,998,654	3,372,606
Earmarked Funds	2	1,325,237	1,312,350
Unspend Project Fund	3	1,432,274	1,614,795
Current Liabilities and Provisions	4	5,266,010	3,178,974
Accumulated (Deficit) / Surplus		(344,775)	310,593
Total		10,677,400	9,789,318
<u>APPLICATION OF FUNDS:</u>			
Fixed Assets	5	2,998,654	3,372,606
Current Assets, Loans & Advances:	6		
- Stock and Stores		127,129	150,893
- Cash and Bank balances		7,376,000	6,119,512
TDS recoverable		175,617	146,307
Total		10,677,400	9,789,318

Accounting Policies and Notes to the accounts **18**

Schedule Nos.1 to 18 form an integral part of the Accounts

As per our report of even date attached
For Thakur Vaidyanath Aiyar & Co.
Chartered Accountants
FRN: 000038N

Accountant
(S.K. Saini)

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

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

Place : New Delhi
Date : 30.08.2018

NEW DELHI TUBERCULOSIS CENTRE
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST MARCH 2018

	Schedule	For the year 2017-18	For the year 2016-17
		(Rs.)	(Rs.)
<u>INCOME</u>			
Recurring Grant from Govt.of India :			
Grant-in-aid Salaries		45,100,000	31,000,000
Grant-in-aid General		4,000,000	3,734,000
Maintenance Grants from TAI		10,000	10,000
Fees from Patients	7	204,500	291,900
Misc. Receipts:			
- Interest income		292,284	152,196
- Other receipts		106,010	1,270
Total		49,712,794	35,189,366
<u>EXPENDITURE</u>			
Salary & Other Staff expenditure	8	45,212,355	30,880,412
Administrative Expenses	9	4,797,027	3,911,053
Expenses on X-Ray Films, Drugs & Medicines and Lab. Consumable	10	358,780	282,236
Total		50,368,162	35,073,701
(Deficit)/Surplus for the year		(655,368)	115,665
Less / (Add) : Balance as per last account		310,593	194,928
		(344,775)	310,593
Accounting Policies and Notes to the Accounts	18		

Schedule Nos.1 to 18 form an integral part of the Accounts

As per our report of even date attached
For Thakur Vaidyanath Aiyar & Co.
Chartered Accountants
FRN: 000038N

Accountant
(S.K. Saini)

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

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

Place : New Delhi
Date : 30.08.2018

**NEW DELHI TUBERCULOSIS CENTRE
RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR ENDED MARCH 31, 2018**

	Schedule	For the year 2017-18	For the year 2016-17
		(Rs.)	(Rs.)
<u>RECEIPTS</u>			
Opening Cash & Bank Balances	6	6,119,512	7,396,262
Grants :			
Recurring Grant-in Aid from Govt. of India			
- Grant-in-aid Salaries		45,100,000	31,000,000
- Grant-in-aid General		4,000,000	3,734,000
Maintenance Grants from TAI		10,000	10,000
Fee from Patients	7	204,500	291,900
Receipts from TAI	11	2,712,000	2,093,000
Other Receipts	12	487,317	520,197
Total		58,633,329	45,045,359
<u>PAYMENTS</u>			
Staff Expenditure	13	43,113,137	30,764,262
Administrative expenses	14	4,778,679	4,036,912
X-Ray films, Drugs and Med. & Lab. Consumables	15	372,216	277,795
Payments from TAI Fund	16	2,712,000	2,093,000
Other Payments	17	281,297	1,753,878
Closing Cash & Bank Balances	6	7,376,000	6,119,512
Total		58,633,329	45,045,359
Policies and Notes to the Accounts	18		

Schedule Nos.1 to 18 form an integral part of the Accounts

As per our report of even date attached
For Thakur Vaidyanath Aiyar & Co.
Chartered Accountants
FRN: 000038N

Accountant
(S.K. Saini)

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

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

Place : New Delhi
Date : 30.08.2018

NEW DELHI TUBERCULOSIS CENTRE

Schedule- 1

ASSETS FUND

	For the year 2017-18	For the year 2016-17
	(Rs.)	(Rs.)
Balance as Per last A/c	3,372,606	3,518,730
Add : Additions during the year for Cost of Assets Acquired (refer Schedule - 5)	32,170	305,056
	<u>3,404,776</u>	<u>3,823,786</u>
Less: Disposals during the year	-	-
Depreciation for the year (refer Schedule - 5)	406,122	451,180
Total	<u>2,998,654</u>	<u>3,372,606</u>

	Unutilised Balance as on 01.04.17	Received / Transferred during the year	Interest	Total	Utilised during the year	Unutilised Balance as on 31.03.18
	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)

Schedule - 2

EARMARKED FUND

General Donations	387,793	-	41,861	429,654	-	429,654
Auditorium fund	1,008	-	-	1,008	-	1,008
For Poor Patients	56,566	-	-	56,566	-	56,566
For Medicines	281,947	12,240	-	294,187	37,062	257,125
Staff Welfare Fund	86,436	-	3,232	89,668	7,384	82,284
Research Fund	498,600	-	-	498,600	-	498,600
Total	<u>1,312,350</u>	<u>12,240</u>	<u>45,093</u>	<u>1,369,683</u>	<u>44,446</u>	<u>1,325,237</u>

NEW DELHI TUBERCULOSIS CENTRE

	As at 31.03.18	As at 31.03.17
	(Rs.)	(Rs.)
<u>Schedule- 3</u>		
Unspent Project Fund:		
Project Fund -SMS for Sure	827,553	929,153
Project Fund -Acceleration of TB notification	-	80,921
Project Fund -Framework of TB care in prison	241,500	241,500
Project Fund -Xpert Ultra	363,221	363,221
	1,432,274	1,614,795
<u>Schedule- 4</u>		
<u>Current Liabilities & Provisions</u>		
Advance Fee & Lab Charges	3,160	3,160
Salary & Allowances	3,350,242	2,712,532
Bonus	178,378	178,870
Other Payable	24,780	32,667
Sundry Creditors	11,130	17,415
Provision for Contribution to Gratuity Fund	1,667,000	205,000
Security Deposit	31,320	29,330
	5,266,010	3,178,974
Total	5,266,010	3,178,974

NEW DELHI TUBERCULOSIS CENTRE

Schedule - 5

Fixed Assets

	WDV as on 01.04.17	Additions during the year	Disposals	Balance as on 31.03.18	Depreciation for the year	Net balance on 31.03.18
	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)
Building	221,369	-	-	221,369	22,137	199,232
Electrical Installations and Sanitary Fittings	716,456	-	-	716,456	71,646	644,810
Furniture & Fittings	1,248,996	32,170	-	1,281,166	127,084	1,154,082
Lab. Equipments	541,650	-	-	541,650	81,247	460,403
X-ray Equipments	475,476	-	-	475,476	71,321	404,155
Other Equipments	15,936	-	-	15,936	2,390	13,546
Computer	16,370	-	-	16,370	9,822	6,548
Books	50	-	-	50	30	20
Vehicle	136,303	-	-	136,303	20,445	115,858
Total	3,372,606	32,170	-	3,404,776	406,122	2,998,654

Detail of Addition of fixed assets during the year 2017-2018

Date of Purchases	Items Name	Qty.	Amount(Rs)
18.07.2017	Motorises Screen	1	11,520
31.03.2018	Lab Stools (steel)	10	20,650
			32,170

NEW DELHI TUBERCULOSIS CENTRE

	As at 31.03.18	As at 31.03.17
	(Rs.)	(Rs.)
<u>Schedule- 6</u>		
<u>(A) Current Assets & Loans and Advances</u>		
Stocks and Stores at cost : (as valued and certified by the Management)		
-X-Ray films and chemicals	17,150	26,484
-Laboratory stains, chemicals glassware	109,979	88,409
Festival Advance	-	36,000
	-	-
Sub Total - A	127,129	150,893
<u>(B) Cash and Bank Balances:</u>		
Cash in hand (as certified by the Management)	162	2,870
In Current A/c with BOI	6,072,500	4,826,191
In Saving Bank		
- with BOI (Earmarked donation fund)	1,221,054	1,204,015
- with BOI (Staff Welfare Fund)	82,284	86,436
Sub Total - B	7,376,000	6,119,512
Gross Total - A+B	7,503,129	6,270,405

Schedule-7

	Advance Fee as on 01.04.17	Fee Received During the year	Add: Advance fee adjusted During the year	Fee for the year 2017-18	Advance as on 31.03.2018
	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)
<u>Advance Fees for patients</u>					
Laboratory charges	3,160	194,000	-	194,000	3,160
X-ray charges	-	10,500	-	10,500	-
Total	3,160	204,500	-	204,500	3,160

NEW DELHI TUBERCULOSIS CENTRE

	For the year 2017-18	For the year 2016-17
	(Rs.)	(Rs.)
<u>Schedule- 8</u>		
<u>Salary & Other Staff Expenditure :</u>		
Salaries	28,200,386	9,849,117
Dearness Allowance	3,407,806	12,450,805
House Rent Allowance	5,084,293	2,866,947
Transport Allowance	1,829,355	1,792,848
Other Allowances	983,310	666,545
Children's Education Allowances	430,632	333,700
Contribution to Provident Fund	3,053,167	2,212,268
Contribution to Gratuity Fund	1,667,000	205,000
Bonus	178,378	355,924
Travel Concession	378,028	147,258
Total	45,212,355	30,880,412
<u>Schedule- 9</u>		
<u>Administrative Expenses :</u>		
Security and Housekeeping Charges	2,023,827	1,578,990
- Housekeeping Charges	11,27,316	
- Security Charges	896,511	
Medical Aid to staff	262,943	263,389
Travelling Expenses & Conveyance	102,998	28,104
Repairs to Furniture and equipment	168,824	121,535
Repairs to X-ray equipments	44,903	41,375
Repairs to Laboratory equipment	111,517	95,665
Telephone Expenses	111,955	130,658
Printing & Stationery	117,115	92,399
Postage	4,932	5,615
Laundry Charges	6,580	5,610
Books & Journals	-	860
Maintenance of car	65,756	40,294
Audit Fee	24,780	24,780
Miscellaneous expenses	140,299	120,978
Building maintenance expenses -civil	692,503	803,263
Building maintenance expenses -electrical	554,590	179,400
Annual day expenses	37,838	38,478
Legal expense	-	19,800
Furniture - Major repair	325,667	319,860
Total	4,797,027	3,911,053

Cost of Assets Acquired out of Grant Fund Fund & Furniture Repairs etc

NEW DELHI TUBERCULOSIS CENTRE

		For the year 2017-18	For the year 2016-17
		<u>(Rs.)</u>	<u>(Rs.)</u>
<u>Schedule- 10</u>			
<u>X-Ray Films ,Drugs and Medicines & Lab. Consumable</u>			
Drugs and Medicines			
Balance as on 1.4.2017	-		
Add : Purchased during the year	63,524		
	<u>63,524</u>		
Less : Closing Stock	-		
	<u>-</u>	63,524	44,837
X-Ray Films and Chemicals			
Balance as on 1.4.2017	26,484		
Add : Purchased during the year	116,936		
	<u>143,420</u>		
Less : Closing Stock	17,150		
	<u>17,150</u>	126,270	83,157
Lab. Stains, Chemicals & Glassware			
Balance as on 1.4.2017	88,409		
Add : Purchased during the year	190,556		
	<u>278,965</u>		
Less : Closing Stock	109,979	168,986	154,242
	<u>109,979</u>		
Materials Consumed	Total	<u>358,780</u>	<u>282,236</u>

NEW DELHI TUBERCULOSIS CENTRE

	<u>For the year 2017-18</u>	<u>For the year 2016-17</u>
	(Rs.)	(Rs.)
<u>Schedule- 11</u>		
<u>Receipts from TAI</u>		
For PF Advances	1,712,000	2,093,000
For Gratuity Payments	1,000,000	
Total	<u>2,712,000</u>	<u>2,093,000</u>
<u>Schedule - 12</u>		
<u>Other Receipts</u>		
Recovery of Festival Advance	36,000	69,300
Donations for Medicines	12,240	12,490
Staff Welfare Fund	3,232	3,382
Interest on FFD A/c	262,974	128,433
Interest on Saving A/c (Earmarked Fund)	41,861	33,633
General Donation	-	10,000
Miscellaneous Receipts	106,010	1,270
Earnest money	25,000	25,000
Auditorium Fund	-	10,000
Project-Acceleration of TB notification	-	224,800
universal comfort products ltd.	-	1,889
Total	<u>487,317</u>	<u>520,197</u>

NEW DELHI TUBERCULOSIS CENTRE

	For the year 2017-18	For the year 2016-17
	<u>(Rs.)</u>	<u>(Rs.)</u>
<u>Schedule- 13</u>		
<u>Staff Expenditure</u>		
Salaries	27,011,740	9,680,549
Dearness Allowance	4,240,706	12,455,119
House Rent Allowance	4,838,203	2,859,047
Transport Allowance	1,819,051	1,796,347
Other Allowances	993,395	614,978
Children's Education allowance	430,632	333,700
Contribution to Provident Fund	3,016,498	2,198,557
Contribution to Gratuity Fund	205,000	412,000
Bonus	179,884	266,707
Travel Concession	378,028	147,258
Total	<u>43,113,137</u>	<u>30,764,262</u>

Schedule- 14

Administrative Expenses

Security and Housekeeping Charges		2023827	1,698,483
- Housekeeping Charges	11,27,316		
- Security Charges	896,511		
Medical Aid to staff		262,943	263,389
Travelling Expenses & Conveyance		102,998	28,104
Repairs to Furniture and equipment		168,824	121,535
Repairs to X- Ray equipment		44,903	41,375
Repairs to Laboratory equipment		113,768	93,414
Telephone Expenses		119,842	135,649
Printing & Stationery		117,115	92,399
Postage		4,932	5,615
Laundry Charges		6,580	5,610
Books & Journals		-	860
Maintenance of car		68,590	29,764
Audit Fee		24,780	24,150
Miscellaneous expenses		140,299	117,544
Building maintenance -civil		661,183	798,933
Building maintenance -Electrical		554,590	179,400
Annual day expenses		37,838	38,478
Furniture		325,667	319,860
Legal expenses		-	42,350
Total		<u>4,778,679</u>	<u>4,036,912</u>

NEW DELHI TUBERCULOSIS CENTRE

	For the year 2017-18	For the year 2016-17
	<u>(Rs.)</u>	<u>(Rs.)</u>
<u>Schedule- 15</u>		
<u>X-Ray Films ,Drugs and Medicines & Lab. Consumable</u>		
X-Ray Films and Chemicals	116,936	105,028
Drugs and Medicines	63,524	44,837
Laboratory Stains and Chemicals	191,756	127,930
Total	<u>372,216</u>	<u>277,795</u>
<u>Schedule- 16</u>		
<u>Payments from TAI Fund</u>		
PF Advances	1,712,000	2,093,000
Gratuity Payments	1,000,000	-
Total	<u>2,712,000</u>	<u>2,093,000</u>
<u>Schedule- 17</u>		
<u>Other Payments</u>		
Festival advance	-	58,500
Earnest money	25,000	-
Staff Welfare Fund	7,384	-
Donation fo medicines	37,062	33,953
Auditorium funds	-	123,885
Ptoject-SMS for sure	101,600	644,800
Project-Acceleration of TB notification	80,921	364,954
Project-Xpert Ultra	-	475,442
Project Genetic Polymorphism	-	30,000
Security deposit	29,330	22,344
Total	<u>281,297</u>	<u>1,753,878</u>

NEW DELHI TUBERCULOSIS CENTRE

Annexure 1 (for the year ended 31st March 2018)

	<u>Grant-in-aid Salaries</u>	<u>Grant-in-aid General</u>
	<u>(Rs.)</u>	<u>(Rs.)</u>
INCOME		
Opening surplus/(Deficit) (01.04.17)	112,913	197,680
Grant-in-aid from Govt.of India	45,100,000	4,000,000
Maintenance Grants from TAI	-	10,000
Fees from Patients	-	204,500
Interest income	-	292,284
Other receipts	-	06,010
Total	<u>45,212,913</u>	<u>4,810,474</u>
 EXPENDITURE		
Salary & Other Staff expenditure	45,212,355	-
Administrative Expenses	-	4,797,027
Expenses on X-Ray Films, Drugs & Medicines and Lab. Consumable	-	358,780
Expenditure on Major Renovation of the Assets	-	-
Total	<u>45,212,355</u>	<u>5,155,807</u>
Surplus/(Deficit)	558	(345,333)
 Total Surplus(Deficit) as on 31.03.2018		<u>(344,775)</u>

NEW DELHI TUBERCULOSIS CENTRE

Schedule – 18

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. 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: 30.08.2018**

WORLD TB WEEK



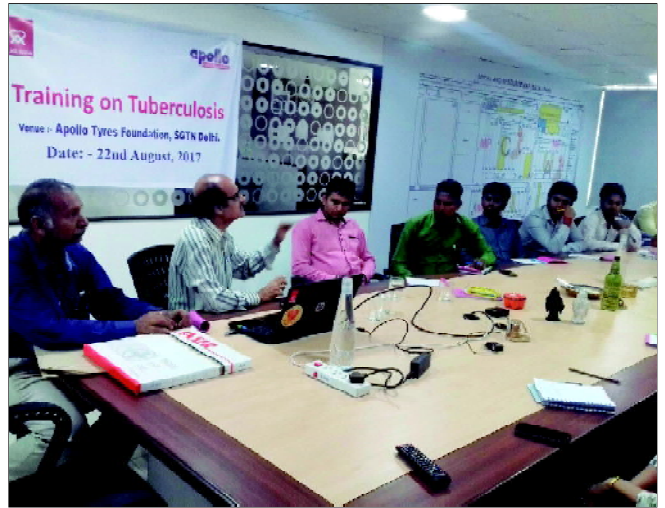
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CONFERENCES & WORKSHOPS



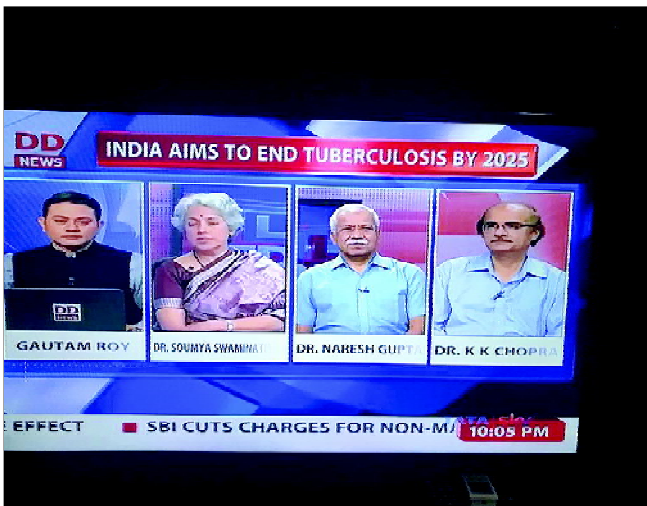
TRAININGS & MEETINGS



NATCON 2017



VISITORS



MEDIA DISCUSSION

ECHO CLINIC

STAFF & STUDENTS





NEW DELHI TUBERCULOSIS CENTRE

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