

NATIONAL TUBERCULOSIS INSTITUTE BENGALURU



**Government of India
NATIONAL TUBERCULOSIS INSTITUTE
Ministry of Health and Family Welfare
'Avalon', No.8, Ballari Road, Bengaluru-560 003
INDIA**

**ANNUAL REPORT
2023-24**

**WHO Collaborating Centre
For
Tuberculosis Research and Training**

**ANNUAL REPORT
2023-2024**



**Government of India
NATIONAL TUBERCULOSIS INSTITUTE
Ministry of Health and Family Welfare
'Avalon', No.8, Ballari Road, Bengaluru-560 003
INDIA**

**Email: nti@ntiindia.org.in
<http://ntiindia.kar.nic.in>**

Year of Publication: 2024

No of copies: 100

Editing

Dr. N. Somashekar

Dr. Preetish S Vaidyanathan

Compilation

Dr. Poornima A.

Dr. Sanjay Singh

Secretarial Assistance

Ms. Sudha .R

Publisher

National Tuberculosis Institute, Bengaluru-560 003

CONTENTS

PAGE NO.

| | |
|--|----|
| ABBREVIATIONS | |
| FOREWORD | |
| ORGANOGRAM | |
| 1. HUMAN RESOURCE DEVELOPMENT DIVISION | 1 |
| 2. LABORATORY DIVISION | 13 |
| 3. EPIDEMIOLOGY AND RESEARCH DIVISION | 15 |
| 4. MONITORING AND EVALUATION DIVISION | 20 |
| 5. ADVOCACY, COMMUNICATION AND SOCIAL MOBILIZATION DIVISION | 21 |
| 6. ADMINISTRATION DIVISION | 26 |
| 7. PARTICIPATION IN MEETINGS / PROGRAMMES/ SEMINARS/CONFERENCES / WORKSHOPS/ CME ETC. | 31 |
| 8. RESEARCH DOCUMENTATION CELL | 43 |

LIST OF ABBREVIATIONS

| | |
|--------|--|
| ACSM | Advocacy Communication & Social Mobilization |
| AI | Artificial intelligence |
| BSc(N) | BSc in Nursing |
| CBNAAT | Cartridge Based Nucleic Acid Amplification Test |
| CDSCO | The Central Drug Standards Control Organization |
| CPWD | Central Public Works Department |
| CTD | Central Tuberculosis Division |
| DCGI | Drug Controller General of India |
| DRTB | Drug Resistance Tuberculosis |
| DST | Drug Susceptibility Testing |
| DTC | District Tuberculosis Centre |
| DTO | District Tuberculosis Officer |
| ECHO | Extension for Community Healthcare Outcomes |
| ERD | Epidemiology and Research Division |
| EQA | External Quality Assurance |
| FIND | Foundation for Innovative New Diagnostics |
| FMR | Foundation for Medical Research |
| GCP | Good Clinical Practices |
| GeM | Government e-Market |
| GNM | General Nursing and Midwifery |
| HRD | Human Resource Development |
| IEC | Institutional Ethics Committee |
| ICELT | International Centre of Excellence for Laboratory Training |
| ICMR | Indian Council of Medical Research |
| ICT | Immuno chromatographic Test |
| IRL | Intermediate Reference Laboratory |
| JSS | Joint Supportive Supervision |

| | |
|-------|--|
| LC | Liquid Culture |
| LIMS | Laboratory Information Management System |
| LPA | Line Probe Assay |
| LT | Laboratory Technician |
| MGIT | Mycobacterial Growth Indicator Tube |
| MO | Medical Officer |
| MOTC | Medical Officer TB Control |
| MOHFW | Ministry of Health and Family Welfare |
| NABL | National Accreditation Board of Laboratories |
| NAAT | Nucleic Acid Amplification Test |
| NIRT | National Institute for Research in Tuberculosis |
| NORC | National Operation Research Committee |
| NRL | National Reference Laboratory |
| NTEP | National Tuberculosis Elimination Programme |
| NTEG | National Technical Expert group |
| NTI | National Tuberculosis Institute |
| NTM | Non Tuberculosis Mycobacterium |
| OR | Operational Research |
| OSE | On-Site Evaluation |
| PMDT | Programmatic Management of Drug Resistant Tuberculosis |
| POD | Prevention of Disease |
| RDC | Research Documentation Cell |
| STDC | State Tuberculosis Training and Demonstration Center |
| STLS | Senior Tuberculosis Laboratory Supervisor |
| STO | State Tuberculosis Officer |
| TB | Tuberculosis |
| ToT | Training of Trainer |
| TU | Tuberculosis Unit |
| WGS | Whole genome sequencing |
| WHO | World Health Organization |

FOREWORD

I am pleased to present the Annual report of NTI for the year 2023-2024. This report highlights the major activities and newer initiatives undertaken by the Institute during the year and has a blend of both administrative and technical activities.

The Institute has been functioning as the technical arm of the Central TB Division and designated as WHO collaborating center. NTI is in the forefront of training large number of health personnel involved in TB Control Programme. The Technical Activities carried out at NTI include building the capacity of human resources for effective implementation of NTEP, and to undertake Operational Research to strengthen the roll out services under NTEP. The NTI Laboratory is NABL accredited and functioning as the National Reference Laboratories in the country. NRL assess the quality of the sputum smear microscopy, molecular diagnostics (NAAT) and drug susceptibility/resistance testing services for both public and private laboratory network under NTEP. A National Database on Tuberculosis research, an Open Access Repository for abstracts of published scientific papers from all major national institutes is functional under the TB Net project. Director NTI is the member of most National Advisory Committees, NORC and NTEG on various thematic areas of NTEP.

The core activity of the Institute is to build the capacity of programme managers and equip them with adequate knowledge and skills pertinent to NTEP. The Institute shoulders the responsibility of training medical and paramedical personnel from various states in several aspects of Tuberculosis programme. “NTEP Modular Training for Programme Managers”, “Training-cum-Workshop on Quality Improvement in TB care and Building Health System Resilience during disaster situations for National Level Programme Managers”, “National Level Training in guidelines for PMTPT in India – 2021”, “STDC – Workshop on Programme Monitoring in NTEP for State Programme Managers”, “National TB Operational Research training course on Protocol development”, Training

for Post-graduate Students, “Training on TB Epidemiology for E2 project staff, State Level Training of Trainers for Medical College Task Force Mechanism to Accelerate ending TB” ,Training in Molecular Methods – LPA, MGIT for Culture & DST, Training on EQA of Sputum Smear Microscopy and Hands on Ni-kshay Training for IRL/NRL Staff were the trainings conducted by NTI during the year. Also National Task Force Pre-Workshop Meeting was held at NTI. The ICELT at NTI imparts trainings on WHO endorsed Newer Diagnostic Techniques for TB.

The laboratory at NTI provides diagnostic support to 3 districts of Karnataka, and also supervises & monitors the quality of sputum smear microscopy network across three States in our country viz. Karnataka, Maharashtra and Rajasthan. NTI is also assessing the quality of all NTEP certified/approved NAAT sites all over the country. The NRL is responsible for imparting training to laboratory personnel and building the capacity of IRLs for the management of drug susceptible and drug resistant TB. The NRL plays an important role in certification of the state level Intermediate Reference Laboratories (IRLs), Medical colleges and other private laboratories for culture and Drug Sensitivity testing to detect Drug Resistant Tuberculosis (DR-TB). The NRL is also mentoring the NRL at Bhopal Memorial hospital & Research Centre, Bhopal.

Operational research is one of the prime functions of the institute. The status of ongoing and forthcoming research studies are briefly described in this report. The ongoing study during the period of report is “A Phase III randomized, double blind, three arm placebo-controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum positive pulmonary TB patients”.

The ACSM Division plays a key role in sensitizing the younger generations from nursing, paramedical, life sciences and medical students on TB and NTEP by conducting regular sensitization training on TB and NTEP. A sensitization programme was organized on Jan Jatiya

Gaurav Diwas 2023 in a Tribal Community to make them aware about TB disease, to utilize government schemes and steps to be taken by them to control/eliminate the disease.

NTI in collaboration with ICS, Karnataka State Chapter commemorated the World TB Day on 24th March 2024 at Jayachamarajendra Wodeyar Auditorium, by organizing a CME programme on Extra-Pulmonary Tuberculosis. Quiz competition for PG students and felicitation of TB warriors was also done during commemoration of world TB day.

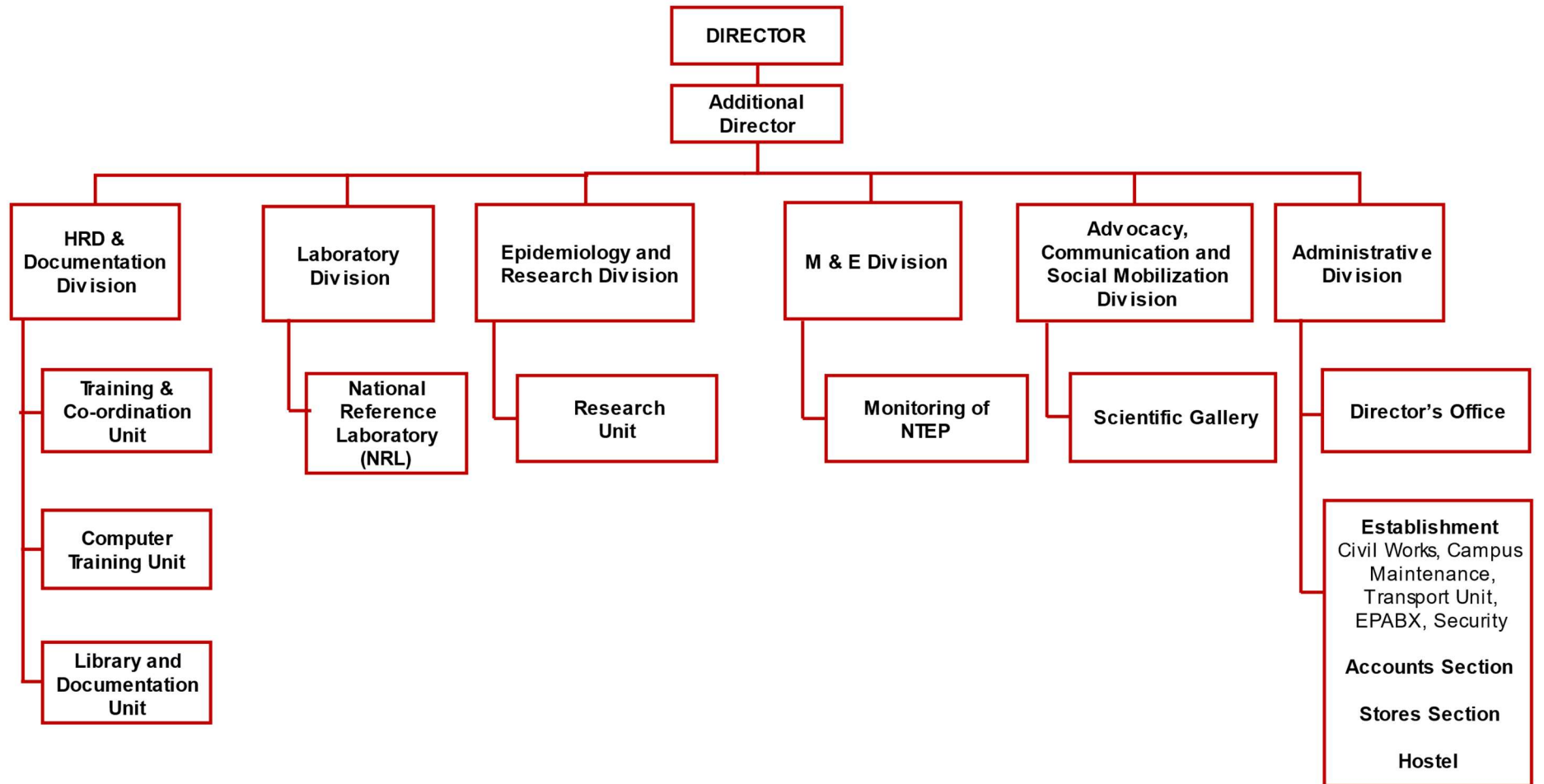
A fleeting reference has been made on the organizational set up and the staff position of the institute. The role of Administrative division is briefly described and participation of faculty and Technical staff in various meetings, training programmes, seminars, conferences, workshops and continuing medical education have been highlighted in this report.

I acknowledge the persistent co-operation and hard work of all the members of the NTI family and I solicit the same degree of motivation and dedication from all in times to come.

I also express my gratitude to the Ministry of Health and Family Welfare, Government of India and the Central TB Division for their continuous guidance, support and encouragement.

Dr. N. Somashekar,
Director

ORGANOGRAM



1. Human Resource Development & Documentation

One of the salient functions of the Institute is to support human resource development and strengthen the capacity of programme managers through skill development activities relevant to National TB Elimination Programme (NTEP). The three units of the Division are;

- A. Training and Coordination Unit
- B. Computer Training Unit
- C. Library & Documentation Unit

A. Training and Coordination Unit

The objective of the NTEP training programmes is to ensure that programme managers, teachers of Medical Colleges, Medical Officers and Paramedical Staff are equipped with adequate knowledge and skill set required to implement TB control activities which includes quality assured diagnosis of TB, management of drug sensitive and drug resistant TB, data management and forging partnerships with all sectors involved in TB control activities.

Training activities at NTI pertaining to NTEP, are coordinated with the HRD unit at Central Tuberculosis Division (CTD). The tentative plan for training activities to be held at NTI is prepared for the ensuing year and sent to CTD, which in turn communicates the same to all State TB Officers. This ensures a staggered nomination of eligible candidates in appropriate batch sizes and allows suitable time to ensure relieving of the participants from their offices to attend the training programme at NTI.

The Training Unit works synchronously with the Computer Training Unit, Hostel, Stores and Transport Units of the Institute to ensure smooth organization of training activities. Training courses and workshops with respect to many aspects of TB control are conducted to accommodate the ever-increasing requirement of trained personnel. The details of the training programme conducted during the reporting year (2023-24) are appended below:

| I. NTEP Modular Training | | | | |
|--|--|------------|------------|---------------------|
| Sl. No. | Category of Personnel Trained | From | To | No. of participants |
| 1. | STO's/DTO's/Medical Officers from different states | 17-04-2023 | 29-04-2023 | 13 |
| 2. | | 05-06-2023 | 17-06-2023 | 14 |
| 3. | | 24-07-2023 | 05-08-2023 | 12 |
| 4. | | 21-08-2023 | 02-09-2023 | 23 |
| 5. | | 09-10-2023 | 21-10-2023 | 13 |
| Total | | | | 75 |
| II. Training-cum-Workshop on Quality Improvement in TB care and Building Health System Resilience during disaster situations for National Level Programme Managers | | | | |
| 1. | DTO's from Karnataka, Andhra Pradesh, Telangana and Kerala | 08-05-2023 | 13-05-2023 | 9 |
| 2. | | 20-11-2023 | 24-11-2023 | 14 |
| Total | | | | 23 |
| III. National Level Training in guidelines for PMTPT in India – 2021 | | | | |
| 1. | STO's/DTO's/STDC Director's and Medical Officers from different states | 26-06-2023 | 28-06-2023 | 19 |
| 2. | | 25-09-2023 | 27-09-2023 | 17 |
| 3. | | 20-12-2023 | 22-12-2023 | 20 |
| Total | | | | 56 |
| IV. National TB Operational Research training cum workshop | | | | |
| 1. | Faculty from medical colleges of Karnataka | 11-09-2023 | 15-09-2023 | 17 |

| | | | | |
|---|---|------------|------------|-----------------|
| V. Training for Post-graduate Students | | | | |
| 1. | Post graduate medical students of community medicine, respiratory diseases and pulmonology specialties from different medical colleges of Karnataka and Telangana | 04-09-2023 | 08-09-2023 | 24 |
| 2. | | 29-01-2024 | 02-02-2024 | 38 |
| Total | | | | 62 |
| VI. National Training on introduction of shorter 3RH TPT regimen under PMTPT (Blended/Hybrid) | | | | |
| 1. | State & District level officers | 04-08-2023 | | 2 (NTI Faculty) |
| VII. NTEP orientation programme for PG students | | | | |
| 1. | Post graduate residents from Department of Community medicine – AFMC, Pune | 10-01-2024 | | 9 |
| VIII. STDC – Workshop on Programme Monitoring in NTEP for State Programme Managers | | | | |
| 1. | STDC Director’s, STO’s, WHO | 17-04-2023 | 21-04-2023 | 40 |
| 2. | Consultants, Data Entry | 22-05-2023 | 26-05-2023 | 28 |
| 3. | Operators (STDC) and others 5 | 03-07-2023 | 07-07-2023 | 25 |
| 4. | from different states | 07-08-2023 | 11-08-2023 | 28 |
| Total | | | | 121 |
| IX. National Task Force Pre-Workshop Meeting | | | | |
| 1. | Assistant Professors of Medical Colleges from Bangalore Division | 21-09-2023 | | 26 |

X. State Level Training of Trainers for Medical College Task Force Mechanism to Accelerate ending TB

| | | | | |
|----|--|------------|------------|----|
| 1. | Professors & HOD's, Assistant Professors, Associate Professors, Senior Residents, Postgraduate Student from the Department of Pulmonary & Community Medicine participated as trainees from various Medical Colleges in Karnataka. Director, CMO (SAG) of NTI, Deputy Director State TB Cell, Senior Specialist (TB), STDC, Bengaluru, Chairperson of ZTF, ZTF OR Chair South Zone (II), STF Chair and WHO Consultants, Karnataka participated as Faculty. | 28-11-2023 | 29-11-2023 | 51 |
|----|--|------------|------------|----|

XI. Academic Meeting and Guest Lecture by Dr. Rajendra Prasad

| | | | |
|----|-------------|------------|----|
| 1. | NTI Faculty | 16-10-2023 | 10 |
|----|-------------|------------|----|

XII. Training on TB Epidemiology for E2 project staff

| | | | | |
|----|----------------------|------------|------------|----|
| 1. | Dr. Tauseef and Team | 16-08-2023 | 18-08-2023 | 13 |
|----|----------------------|------------|------------|----|

Laboratory Trainings

I. Training in Molecular Methods – LPA

| | | | | |
|----|-------------------------------|------------|------------|---|
| 1. | Medical Officers, Bio-medical | 10-04-2023 | 14.04.2023 | 9 |
|----|-------------------------------|------------|------------|---|

| | | | | |
|---|--|------------|------------|----|
| 2. | Engineer, Data analyst, | 19-06-2023 | 23-06-2023 | 9 |
| 3. | Microbiologists & Sr. Laboratory | 04-09-2023 | 08-09-2023 | 8 |
| 4. | Technicians and Laboratory | 30-10-2023 | 03-11-2023 | 9 |
| 5. | Technicians from different states | 08-01-2024 | 12-01-2024 | 7 |
| Total | | | | 42 |
| II. MGIT for Culture & DST | | | | |
| 1. | Associate Professors, Asst. | 17-07-2023 | 21-07-2023 | 13 |
| 2. | Professors, Microbiologists & Sr. | 06-11-2023 | 10-11-2023 | 11 |
| 3. | Laboratory Technicians and | 20-11-2023 | 24-11-2023 | 11 |
| 4. | Laboratory Technicians from different states | 05-02-2024 | 09-02-2024 | 9 |
| Total | | | | 44 |
| III. Training on EQA of Sputum Smear Microscopy | | | | |
| 1. | Medical Officer, Microbiologists, | 29-05-2023 | 02-06-2023 | 11 |
| 2. | Sr. Laboratory Technicians and Laboratory Technicians from different states | 11-03-2024 | 15-03-2024 | 21 |
| Total | | | | 32 |
| IV. Hands on LIMS | | | | |
| 1. | NTI Laboratory Staff | 23-05-2023 | 24-05-2023 | 21 |
| V. Hands on Ni-kshay Training for IRL/NRL Staff | | | | |
| 1. | Laboratory personnel's of NTI – Bangalore, BMHRC- Bhopal, NITRD - Delhi, NIRT- Chennai and RMRC- Bhubaneswar | 13-07-2023 | 14-07-2023 | 13 |
| 2. | | 17-07-2023 | 18-07-2023 | 8 |
| 3. | | 16-08-2023 | 17-08-2023 | 12 |
| 4. | | 18-08-2023 | 19-08-2023 | 9 |
| 5. | | 20-09-2023 | 21-09-2023 | 5 |
| 6. | | 22-09-2023 | 23-09-2023 | 8 |
| Total | | | | 55 |

NTEP Modular Training



PMTPT Training



Training cum Workshop on Quality Improvement & Building Health System Resilience



NTEP Training –Postgraduates



Training on EQA of sputum smear microscopy



**Training on LC & DST Testing for 1st & 2nd line anti TB drugs
(MGIT 960)**



Training in Molecular Methods – LPA 1st & 2nd Line Anti TB Drugs



International Center of Excellence for Laboratory Training (ICELT)

The activities held in ICELT during the period of April 2023 to March 2024 are given below:

1. Truenat EQA Phase III – Truenat EQA panel preparation and verification
2. Truenat EQA Phase III – Truenat EQA virtual sensitization
3. Truenat EQA Phase III - Truenat EQA round (Year 2023-24)
4. CBNAAT EQA Year 2023-24 - CBNAAT EQA virtual sensitization (Supported)
5. CBNAAT EQA Year 2023-24 – CBNAAT EQA round (Supported)
6. e-training material preparation (including video shooting)
7. Panel stability Study (Started in Aug 2022)
8. Truenat onsite trainings, 279 participants trained
9. Virtual Truenat EQA sensitization workshop, 3071 participant trained
10. Supported virtual CBNAAT EQA sensitization workshop, 1986 participants sensitized.

B. Computer Training Unit

The core activity of the Institute is to support human resources development and strengthen the capacity of program managers through skill development activities relevant to NTEP. The three units under this Division are Training & Coordination Unit, Computer Training unit and Library & Documentation Unit.

The Computer Training Unit supports the following major areas:

- Facilitate in organizing need-based training with relevance to program and customized application related trainings
- The support Information and Communication Technology (ICT) Initiatives in the context of the Programme.
- The support Data Management and Statistical Analysis of research studies and other MIS.
- Caters to the need of maintenance of website / upkeep / up-gradation of IT infrastructure of the Institute.
- The unit provided assistance for video conferencing related activities (both joining & hosting the VC)

NTI website support services

- Application server configuration and maintenance for the following websites: www.ntiindia.org.in, www.tbresearch.ntiindia.org.in.
- Domain renewal of NTI Websites.
- Maintaining E-mail services at NTI.
- Periodic uploading of content to NTI Website as per requirements.
- Maintaining and updating Department-wise Telephone directory on the NTI Website.
- Uploading Notifications for recruitments happening at NTI on the NTI Website.

Other IT Support Services:

- Configuration of Broadband internet with the help of Internet service providers.
- Periodic licensing server configuration & maintenance of software's.
- Maintenance of access to subscribed Journals.
- Co-ordinated with the Stores Unit, NTI for the installation of CCTV Cameras in the office.
- Monitoring of recordings of various CCTV Cameras in the institute.

- Periodic maintenance of IT Equipment of the institute.
- Renewal of Rainmail Server services.
- The Rainmail server is maintained periodically. The service reports and log details are collected every day and modifications are done to the network as and when required.
- Periodic maintenance of Aadhaar Enabled Biometric Attendance System (AEBAS) undertaken.
- Periodic licensing server configuration such as Email Server, Proxy Server, Firewall, Anti-Virus protection etc.
- Coordinated with MTNL Cloud Attack intelligence network to blacklist and block suspicious IP addresses.
- Handling matters pertaining to AMC of computers / UPS and issues pertaining to server configuration / Internet services / mailing services.
- Monitoring services provided by 'Techno Lifts' for regular maintenance.

Other Support Services:

- Internal shifting, configuration and stock updating of computers.
- Handled classes on NI-KSHAY.
- Coordinated with FIND, AKSHARA and KPMG to facilitate maintenance of LIMS.
- Interaction with developer team to update the features of LIMS.
- Upkeep and configuration of Video Conference Unit to support all VC interactions like ECHO clinic.

C. Library and Documentation Unit

Major Routine Activities undertaken by the Library and Documentation Unit are:

- Collection and Maintenance of Core periodicals on TB & respiratory diseases, documents on TB research, reports, proceedings, souvenirs, WHO unpublished documents, selected papers.
- Coordinating with CTU in digitization of important research studies and hosting the same on the internet/intranet.
- Library, provided the information needs of the faculty, staff of the Institute besides Medical and Para-medical trainees and delegates/visitors from medical fraternity.
- Co-ordinated in periodicals updating of the NTI website, both internet and intranet.
- Co-ordinates the publication activities of the Institute. The major responsibilities of this unit are to oversee the regularity of the publication NTI Annual reports and other specialized publications.

Additional activities:

- Correspondence made with suppliers of periodicals & journals in the country for subscriptions of journals for the year 2023-2024.
- Received and displayed the “Indian Journal of Tuberculosis”, other scientific Journals, Swamy’s News & Swamy’s Handbook in the library during the year 2023-2024.
- Inventories made in respective register regarding journals/periodicals and books received.

2. LABORATORY DIVISION

The laboratory has been designated as one of the National Reference Laboratory in the country and also is NABL accredited. The NTI laboratory participates in EQA program with WHO Supra National Reference Laboratory (SNRL) Prince Leopold Institute of Tropical Medicine Antwerp, Belgium and has successfully passed all rounds of proficiency testing.

The NTI laboratory provides diagnostic support to 3 NTEP districts of Karnataka. NRL supervises and monitors the quality of the sputum smear microscopy, culture and drug susceptibility testing services in the network of laboratories in the three states allocated viz, Karnataka, Maharashtra and Rajasthan. NTI-NRL is responsible for assessing the quality of all NTEP certified/approved NAAT sites all over the country..

NRL is also responsible for accrediting state Level laboratories i.e., the IRLs, Medical Colleges and other private laboratories for Culture and Drug Susceptibility Testing for detection of Drug Resistant Tuberculosis (DR-TB) and also supporting State Level Drug Resistance Surveillance (DRS) and PMDT activities. NTI is mentoring the NRL at Bhopal Memorial hospital & Research Centre, Bhopal.

Besides these activities, laboratory division coordinates with training unit in conducting laboratory related trainings for laboratory personnel Comprehensive Training for Laboratory Personnel, Whole Genome Sequencing (WGS), Training for Laboratory Personnel, Training courses for Laboratory Personnel in Line Probe Assay, Training in Liquid Culture and Drugs Sensitivity were the trainings conducted during the year of reporting. The details of the laboratory trainings are already mentioned in training activities

Specimens processed at NRL NTI during the period April 2023 to March 2024

| Registration | | 2023 |
|--|---------|-------------|
| Total Specimens registered (<i>Sputum + XDR Culture +Universal DST+NTM and OP</i>) | | 8935 |
| Number of Universal DST Samples registered for LPA | | 7469 |
| Number of Rejected samples | | 21 |
| Tests Carried out | | |
| Number of Microscopy done | | 8858 |
| Total No. of specimens subjected for decontamination | | 8935 |
| Total number of specimens subjected to CBNAAT | CBNAAT | 1407 |
| | Truenat | 145 |
| Total no. of Line Probe Assay performed for First Line DRT | | 6358 |
| Total no. of Line Probe Assay performed for second Line DRT | | 796 |
| Total no. of specimens put up for primary inoculation in MGIT | | 533 |
| Total no. of specimens subjected for ICT (identification test) | | 1937 |
| Total no. of drug susceptibility test performed by MGIT | | 537 |

3. EPIDEMIOLOGY AND RESEARCH DIVISION

The extensive Epidemiological and Operational Research Studies conducted by the Institute after the establishment in 1959, the majority being shouldered by the Epidemiology and Research Division had been successful in formulating the first National Tuberculosis Programme (NTP) in 1962 by incorporating the clinical, epidemiological and sociological aspects of the disease. Further, intensification of TB control activities based on review of NTP and other evidences generated by epidemiology division and TB programme managers through epidemiological and operational research led to the formulation of Revised National TB Control Programme (RNTCP) in 1997.

During the RNTCP era the division conducted surveillance through multiple rounds of Annual Risk of TB Infection (ARTI) in four defined zones across the country and Prevalence of disease survey. Other significant research studies included estimated missing cases through capture recapture studies and mathematical modelling for calculation of Prevalence and trends of TB disease. In addition, mentorship and technical support was provided to various state and district programme managers, and other Organizations /Institutions in conducting epidemiology and operational research studies and disseminating the findings for policy/programme advocacy.

Research on TB care cascade like Implementation of New Integrated Algorithm for Diagnosis of DR-TB, Knowledge and Practice among clinicians in management of EPTB in tertiary care settings, and Regulatory Clinical trial involving a new Vaccine Candidate for the prevention of TB disease (VPM1002) was aimed at scaling up programme activities targeted towards TB elimination under National TB Elimination Programme (NTEP).

Major functions of Epidemiology & Research Division are as under: -

- A. To conduct epidemiological, operational and implementation research in TB including preparing generic protocols, implementing, monitoring & supervising, data management, analysis and report writing.
- B. To Provide Technical and Operational support to other Organizations /Institutions in the country in conducting TB Epidemiology and operational research studies.

- C. To provide mentorship and training in the operational, implementation and epidemiological research on TB under the sponsorship of either CTD, Union or the State.
- D. To undertake mathematical modeling for forecasting TB burden and programme performance based on the implementation of the existing and proposed new strategies under NTEP.
- E. To provide technical inputs for the development of training modules & guidelines, for policy development in monitoring & supervision and facilitating modular training and sensitization.
- F. Pioneered a multi-centric national-level regulatory Clinical Trial; A Phase III Double-blinded Randomized Control Vaccine Trial for prevention of TB disease in collaboration with ICMR.

A. Study undertaken by NTI under India TB Research Consortium:

- 1. A Phase III randomized, double blind, three arm placebo-controlled trial to evaluate the efficacy and safety of two vaccines VPM1002 and Immuvac (Mw) in preventing Tuberculosis (TB) in healthy household contacts of newly diagnosed sputum positive pulmonary TB patients.** Version 1.5 dated 3rd Oct 2018.

Study objectives:

1. Primary Objective:

To evaluate the efficacy of VPM1002 and Immuvac by comparing the reduction in incidence of TB over 3-year period among Indian healthy household contacts of newly diagnosed sputum positive PTB patients vaccinated with VPM1002 and Immuvac in comparison to placebo.

2. Secondary Objective:

- i. To evaluate the efficacy of VPM1002 and Immuvac in the prevention of LTBI in healthy household contacts of newly diagnosed sputum positive PTB patients in comparison to placebo [in a sub-set of population at Sites – Delhi (NCR), Hyderabad and Chennai].
- ii. To evaluate the safety of VPM1002 and Immuvac in Indian healthy household contacts.

- iii. To evaluate the Immunogenicity of VPM1002 and Immuvac in healthy household contacts as compared to placebo against tuberculosis. (in a subset of population at Sites – Delhi (NCR), Pune and Chennai).

Methodology:

The study was approved by DCGI vide their letter File No: BIO/Form44/FF/2018/9536 dated 20-Dec-2018. The trial was cleared by the NTI-Institutional Ethics Committee for the respective trial sub-sites, namely General Hospital, Jayanagar (JGH) and K. C. General Hospital (KCGH), Malleswaram.

The details of the sputum positive PTB cases presenting to the DOTS centre / clinic/OPD of the implementing institute in the last 4 weeks was obtained. The index case was contacted and visited to explain about the study and sensitized to provide details of Household contacts (HHC). All relevant details of the index case such as name, age, gender, address (corresponding and permanent), contact number, date of diagnosis and initiation of anti-tuberculosis treatment (ATT), sputum smear grade and drug sensitivity pattern will be recorded in site records. A list of HHCs was obtained from the index case by the health staff. Household contacts eligible and willing to be screened were registered for the study. The study procedures include three phases: screening phase, enrolment phase and follow-up phase. Only those found to be eligible upon screening were vaccinated twice, one month apart with the Investigational Product (VPM1002, Immuvac or Placebo).

Expected outcome:

- ✓ To compare the percentage of confirmed TB cases (PTB and EPTB) as per NTEP guidelines in the vaccinated and placebo groups from two months after first dose of vaccine up to endpoint till 38 months follow-up period (VPM1002, Immuvac and Placebo).
- ✓ Number of participants developing LTBI.
- ✓ Incidence of adverse events and serious adverse events in study participants till the end of study period.

- ✓ Immunogenicity of VPM1002 and Immuvac will be compared with placebo to be measured by (Will be done at AIIMS, Delhi; NARI, Pune; and NIRT, Chennai):
 - FACS (Fluorescence activated cell sorting): CD3, CD4/CD8, TNF α IFN γ , IL2 [Time Frame: screening, month 2, month 6, and those who have developed PTB will be followed up during the course of study].
 - LUMINEX:IL2, IFN γ , TNF α IL 10, IL12, IL 17 [Time Frame: screening, month 2, month 6, and those who have developed PTB/EPTB will be followed up during the course of study].
- ✓ There were a few more secondary outcomes too.

Current Status:

- The enrolment of participants for vaccination was stopped on 31st Dec 2020 as per the directions given by the sponsors, ICMR.
- We enrolled a total of 803 participants under the sub-sites of NTI. The follow-up of the participants enrolled at both JGH and KCGH was done at KCGH initially and subsequently at NTI
- A Participant Retention Plan for NTI was prepared for timely follow-up and efforts were made to complete all the follow-ups within the scheduled period. Accordingly, the job allocation has been made to all the vaccine trial project staff and the NTI staff involved in the trial.

Progress of the Trial at Jayanagar General Hospital (JGH) and KC General Hospital (KCGH) carried out in NTI campus from 1st April 2023 to 31st March 2024

Three TB cases and six Serious Adverse Event (SAE) were reported during the 1234 follow up visits and 90 unscheduled visits undertaken during the period of report.

B. Research dissemination and Publication:

- INDEX guidelines for extra pulmonary tuberculosis: Knowledge and practice among clinicians in Bengaluru, Karnataka. Published in International Journal of Community Medicine and Public Health in September 2023.

C. Other Technical Activities:

- Cluster wise CEB maps were collected for the selected clusters of Chikkaballapura and Chikkamagalur districts in DLSS Project from Directorate of Census Operations, Karnataka.
- Finalized DLSS documents along with Patient Information Sheet and Consent form being submitted for NTI - IEC clearance.
- The newly recruited Vaccine Trial Project staff were trained in Good Clinical Practices and the Vaccine Trial Protocol and SOPs in January and February 2024.

4. MONITORING AND EVALUATION DIVISION

Monitoring and Evaluation is a critical component of NTEP of India to ensure effective implementation of the program as per plan. Currently the Monitoring of the program in India is done by digital health based app like Nikshay, Arogya setu and prevent TB app. With the help of electronic case based web based app Nikshay the real time data can be generated for analysis by the program officials at various levels. The data generated are routinely analyzed by program officials at various level to improve the program performance. Proposal related to training of program officials at NTI in basic analysis of program data generated in Nikhsay was submitted by M&E officials.

Evaluation of the program is currently done by internal evaluation by central TB division called joint supportive supervision as per planned protocol. Officials of NTI support central TB division in Joint supportive supervision of the states for ensuring effective implementation of the program. The objective of Central internal evaluation is not only to support the state visited in removing hurdles to effective implementation of the program with the help of Centre and other State health officials and Partners but also to replicate any innovative measures taken by the visited state in other states for successful program implementation.

Operational research proposals related to Monitoring & Evaluation was also submitted by the officials of the division. Monitoring and Evaluation supported in x-ray reading for early diagnosis of TB in participants.

5. ADVOCACY, COMMUNICATION AND SOCIAL MOBILIZATION DIVISION

The Advocacy, Communication and Social Mobilization Division in short the ACSM Division was set up to enable and enhance the TB Control Program at different fronts. The Division plays a key role in sensitizing the younger generations from nursing, paramedical, life sciences and medical students on TB and NTEP.

1. Scientific Gallery

The Scientific Gallery has been established to disseminate the general information on TB, the evolution of the programme, research conducted by NTI and achievements of the Institute since its inception. Considering the needs of the diverse categories of visitors like, Health officials from state government departments, doctors and para-medical personnel from government and private sector and various categories of health-sector trainees, regular in-house sensitization programme/training have been conducted by the division.

2. Sensitization Programme

Sensitization/ training on TB & NTEP for paramedical and basic life science students are regularly conducted by ACSM division as and when requested by the respective colleges. Also from the year 2020 onwards the division has initiated virtual orientation/sensitization training.

During the year of reporting, a total of **733 students** (Paramedical and Life Science) on TB and NTEP were sensitized at NTI and 2 colleges at their respective institutions. The details of the sensitization/ training conducted during the year are app ended below:

| Sl. No | Date | Category of Students | Organization | No. of Students |
|---------------|-------------------------|-------------------------------|---|------------------------|
| 1. | 19.06.2023 | MPH students | National Health Mission | 09 |
| 2. | 21.06.2023 (Virtual) | IVth Yr. B.Sc Nursing | Sri Devraj Urs College of Nursing, | 40 |
| 3. | 30.06.2023 | BSc final year (Microbiology) | Maharani's Science College for Women, Bengaluru | 38 |
| 4. | 30.06.2023 (Virtual) | IVth Yr. B.Sc Nursing | Sri Sathya Sai Institute of Higher Medical Sciences College of Nursing, Bengaluru | 36 |
| 5. | 30.06.2023 (Virtual) | IVth Yr. B.Sc Nursing | Sri Kalabyraveswara Swamy College of Nursing, Bengaluru | 60 |
| 6. | 19.03.2023 | B.Sc Nursing | St. Johns College of Nursing | 50 |
| 7. | 20.03.2023 | II yr. B.Sc Nursing | Krupanidhi College of Nursing | 50 |
| 8. | 21.03.2023 | GNM students | Krupanidhi College of Nursing | 50 |
| Total | | | | 333 |

3. World TB Day 2024 Commemoration at NTI

NTI, Bengaluru in collaboration with ICS, Karnataka State Chapter commemorated the World TB Day on 24th March 2024 at Jayachamarajendra Wodeyar Auditorium from 9 AM till 3.30 PM. A CME programme on Extra-Pulmonary Tuberculosis was organized and eminent speakers from various specialties participated. There was also a Quiz Competition for P.G Students and TB warriors were felicitated.

4. Other Activities:

1. Celebration of JAN JATIYA GAURAV DIWAS 2023

A sensitization programme was organized on 23rd November 2023 at Anganwadi Kendra, Gowripura near Bidadi, to sensitize the tribal community regarding TB disease, to utilize government schemes and steps to be taken by them to control/eliminate the disease.

2. Awareness on Tuberculosis at Mahalakshmi Ammanni College for Women

As a part of International Women's Day celebration, a sensitization programme on TB was done for 200 students (Comprising of Arts, Commerce & Science) on 6th March 2024 at their college premises.

3. Sensitization on TB at MVJ College of Nursing on 25th March 2024

D.H. ACSM visited the college as a resource person to deliver lecture on "World Tuberculosis Day 2024" with the theme, "Yes we can end TB". 200 students and 6 faculties attended the sensitization programme.

Celebration Of Jan Jatiya Gaurav Diwas 2023 in a Tribal Community



Sensitization at NTI for Para-medical Students



Awareness Programme on TB in Mahalakshmi Ammani College for Women



Sensitization on World TB Day 2024 at MVJ College of Nursing



6. ADMINISTRATION DIVISION

The Administration Division of NTI caters to all the administrative requirements of the Institute. The major activities of the units for the financial year 1st April 2023 to 31st March 2024 are briefly furnished below.

ESTABLISHMENT

The unit caters to the administrative matters, general upkeep of campus through CPWD, provision of contractual manpower to various divisions, and service matters pertaining to the staff viz., Framing of Recruitment Rules in respect of all Group 'B' & 'C' posts as per the recommendation of VII CPC and its onward transmission to the CTD for its notification, holding of DPC for considering cases of promotion, confirmation, grant of MACP, processing of legal issues pertaining to service matters coming under the purview of Central Administrative Tribunals and Honorable High Court of Karnataka & SLP in the Supreme Court. The details of the staff position are as under:

| Sl.No. | Category | Sanctioned | In Position | Vacant |
|--------|-------------------------|------------|-------------|-----------|
| 1. | Group 'A' | 14 | 11 | 3 |
| 2. | Group 'B': Gazetted | 02 | 01 | 1 |
| | Group 'B': Non-Gazetted | 38 | 28 | 10 |
| 3. | Group 'C' | 71 | 49 | 22 |
| | | 125 | 89 | 36 |

Promotions : Nil

Retirements on attaining the age of superannuation:

| Sl. No. | Name | Designation | Date |
|---------|--------------|-------------|------------|
| 1. | Sri. Prakash | MTS | 31.05.2023 |
| 2. | Sri. Krishna | MTS | 31.07.2023 |

| | | | |
|----|-----------------------|-----------|------------|
| 3. | Sri. Narasimhaiah | Driver | 31.07.2023 |
| 4. | Sri. Sunder | Safaiwala | 31.10.2023 |
| 5. | Dr. V.K.Chadha | Advisor | 31.10.2023 |
| 6. | Sri. M.Narayanamurthy | UDC | 31.12.2024 |

Retirements other than superannuation: Nil

Transfers from NTI: Dr. Parvathi Anil, Medical Officer on 31.01.2024

Transferred to NTI:

- Dr. Preetish S Vaidyanathan, Sr.CMO (SAG), on 01.02.2024
- Dr. Ravinder Kumar, TB Specialist Gr. II on 14.08.2024,
- Dr. Rajeshwari Kasturi, DDG Stat on 25.08.2023 and
- Smt. Archana, J.S.O on 08.02.2024

Interviews Conducted:

| Sl. No | Name of the Project | Date of Interview | Total No of Posts |
|--------|---|---|-------------------|
| 1 | EQA/NRL | 10.11.2023 | 02 |
| 2. | A Phase –III Randomized, Double-blind, Three-arm Placebo-controlled Trial to Evaluate the Efficacy and Safety of two vaccines VPM 1002 and Immuvac (Mw) in Preventing Tuberculosis (TB)in Healthy Household Contacts of Newly Diagnosed sputum Positive Pulmonary TB patients | 09.11.2023 to 10-11-2023 & 06.12.2023 | 05 05 |

Departmental Promotion Committee meetings conducted: Nil

MACP:

| Sl. No | Total no. of MACP Cases Processed |
|---------------|--|
| 1. | 5 |

Court Cases:

| Sl. No | Name of the Court | Total No. of Cases | Disposed |
|---------------|--------------------------|---------------------------|-----------------|
| 1. | Supreme Court | 0 | 0 |
| 2. | High Court | 0 | 0 |
| 3. | CAT | 1 | 0 |

CGHS:

| Sl. No | Total No. of Permissions Granted |
|---------------|---|
| 1. | 51 |

Pay Fixation

| Sl. No | Total No. of Pay Fixations |
|---------------|-----------------------------------|
| 1. | 05 |

CIVIL, HORTICULTURAL AND ELECTRICAL RELATED MAINTENANCE WORKS CARRIED OUT IN THE FINANCIAL YEAR 2023-24

Civil, Electrical works and maintenance by CPWD:

The Civil, Horticultural, and Electrical works of the Institute are being executed through the Central Public Works Department (CPWD), under the Ministry of Housing and Urban Affairs, Government of India, out of the budget sanctioned to NTI during each financial year.

A budget of Rs. 2,32,85,420 /- (Rs. Two crore Thirty-two Lakh Eighty-Five Thousand Four Hundred Twenty Only) Under the head of account PLAN CAPITAL, OTHER CAPITAL EXPENDITURE – MAJOR WORKS, MINOR CIVIL

AND ELECTRICAL WORKS was allocated to the Institute during the financial year 2023-24 for carrying out maintenance and new works. The following Civil, and Electrical works were executed during the period under report, in addition to other routine repair & maintenance work:

- **CPWD, CIVIL Works**

1. Day-to-day maintenance works of Residential buildings at NTI campus.
2. Day-to-day maintenance works of Non-Residential buildings at the NTI campus.
3. Civil pending works at International Guest house.
4. Water proofing at Avalon Main Building, Benjamin, Laboratory, Transport
5. Interior and exterior painting Benjamin, Laboratory Block, Hostel (Krishna, Kaveri).

- **CPWD, Electrical Works**

1. Day-to-day maintenance works of Residential buildings at NTI campus.
2. Day-to-day maintenance works of Non-Residential buildings at the NTI campus.
3. Running and Maintenance 2nos of 125 KVA DG Set and Passenger lift at NTI Campus.

- **Additional Works**

1. Electrical fitting at International Guest House.

TRANSPORT UNIT

Presently, the Unit has 11 vehicles of which 7 are deemed for condemnation, and 4 vehicles which have been purchased in 2020s are in running condition. The unit also maintains all the documents pertaining to the registration and condemnation of the vehicles.

Condemnation of seven vehicles and letters regarding the condemnation of the vehicles have been communicated

STORES UNIT

Stores cater to the logistic needs of various Units/Divisions of the Institute. It is responsible for procurement and supply of stores items for the smooth functioning of the Institute. This involves extensive procedures viz., receipt of indents from individual Units and their compilation, calling for quotations/tenders, BOQ bids, arrangements for opening the tenders, technical evaluation, preparation of comparative statements and submission of the same to the Purchase Committee for its recommendations for further necessary action. The other functions of Stores Unit includes:

- All major procurements are made through GeM.
- Maintenance of Stores and Stock Registers.
- Arrangement for Annual Maintenance of equipment held by different units/Divisions.

Details of purchases and other activities undertaken during 2023-24

1. Items purchased against Annual Indent 2023-24 as decided and approved by the director and issued to various Units.
2. Stationery Items, General Stores Items and Sanitization items are purchased Through GeM & issued to various Units.
3. Laboratory chemicals, consumables etc., purchased and issued to Laboratory Unit.
4. Purchase of Smart board to Training division.
5. Purchase of CBNAAT cartridges and Truenat Micro PCR MTB Test kit for issuing to Laboratory division.
6. Purchase of Centrifuge for Laboratory division.
7. Purchase of Desktop Computers for issuing to CTU.
8. Purchase and installed EPABX System and its accessories at various divisions.
9. Stationery, General stores items, Pen drives and Training bags are purchased for Training unit and issued for their various Training activities.

10. Work order issued for repair of Tata Nexon Car.
11. Circular issued and correspondence made for Annual Physical Stock verification.
12. Bilingual self-ink rubber stamps purchased and issued to officers.
13. Process for initiation of Calibration work for laboratory instruments to NABL activities.
14. Annual Maintenance Contract for computers, printers etc., renewed.
15. Annual Maintenance Contract for online UPSs renewed.
16. Annual Maintenance Contract for laboratory Instruments/Equipment's were renewed.
17. Disposal of Bio-medical waste contract renewed.
18. Repair and servicing of Laboratory Instruments held by Laboratory Unit.
19. Repair and servicing of Air conditioners held by this institute.
20. Repair and servicing of water purifiers held by this institute.
21. Servicing and refilling of Fire extinguishers held by this institute is initiated.
22. Stationery items and miscellaneous items purchased and issued for
23. POD Vaccine Trial.
24. Deep Cleaning of Hostel and office wash rooms.

ACCOUNTS

The unit caters to the financial matters of the Institute. Details of Budget received under Non Plan and Plan and Expenditure in the F.Y. 2023 -2024 is as follows:

| | Budget Estimate | Expenditure |
|----------------|----------------------------|----------------------------|
| Revenue | Rs. 18,40,00,000.00 | Rs. 16,42,73,000.00 |
| Capital | Rs. 03,77,00,000.00 | Rs. 02,28,39,000.00 |
| Total | Rs. 22,17,00,000.00 | Rs. 18,71,12,000.00 |

**7. PARTICIPATION IN MEETINGS / PROGRAMMES / SEMINARS /
CONFERENCES / WORKSHOPS / CME ETC.**

The Director, faculty and technical staff of NTI participated as facilitators, resource person / delegate in Conference / workshops / training programmes conducted in both at NTI and outside. The details are furnished below:

| Sl. No. | Particulars | Date | Resource person/Participants |
|----------------|--|------------------|-------------------------------------|
| 1. | Truenat EQA sensitization program to Karnataka | 03.04.2023 | Dr. Mamatha H G |
| 2. | Vaccine trial progress update meeting with the ICMR experts every fortnight | Every fortnight | Dr. S. Uma Shankar |
| 3. | Virtual meeting for discussion on TB Modelling Protocols with SSSIHL-NTI-ESI | 05.04.2023 | |
| 4. | DLSS update online meeting with NIRT – ICMR (sponsors) Chennai for carrying out Sentinel Surveillance for TB burden in India 2023-2024 | On Every Fridays | |
| 5. | Zonal Task Force (ZTF) meeting for the ZTF-South 1 (Karnataka, Andhra Pradesh, Telangana) at Trivandrum | 12.04.23 | Dr Somashekar N |
| | Zonal Task Force (ZTF) meeting for the ZTF-South 1 13th April 2023 at Hyderabad, Telangana | 13.04.23 | |

| | | | |
|-----|--|--------------------------------|--|
| 6. | NRL Cordination Committee Meeting at NIRT Chennai | 17.04.2023 to 18.04.2023 | Dr Somashekar N Dr. Reena K Dr. Mamatha H G Mrs. Vinutha Mrs. Shilpa, Ms. Pooja |
| 7. | Virtual 1 st consultative meeting for revising EQA for smear microscopy with CTD and IDDS | 24.04.2023 | Dr Somashekar N Dr. Reena K Dr. Mamatha H G |
| 8. | Virtual Nikshay Analytics Training by CTD to all states | 26.04.2023 | Ms. Pooja Ms. Sudha |
| 9. | Chaired the National workshop for disseminate the updated guidelines and norms for STDC 2003 held at Lalit, New Delhi organized by USAID IDDS Project in collaboration with NRLs under the Leadership of CTD, MoHFW, New Delhi | 25.04.2023 | Dr Somashekar N |
| 10. | Dissemination event for releasing Technical Guidance documents by CTD and IDDS at New Delhi | 28.04.2023 | Dr Somashekar N Dr. Mamatha H G |
| 11. | Assessment visit to IRL Pune for root cause analysis of higher contamination rates in IRL Pune | 02.05.2023 to 04.05.2023 | Mrs. Vinutha U Mr Somashekarya |

| | | | |
|-----|--|-------------------------------|------------------------------------|
| 12. | Participated as guest speaker,Virtually in CME On Tuberculosis conducted by AIIMS Jodhpur and presented a topic on “Programmatic Diagnosis of TB under NTEP” | 03.05.2023 | Dr. A. Poornima Dr. Mamatha H G |
| 13. | Workshop for the Master Trainers on Modernized Training System in NTEP at NITRD,New Delhi | 03.05.2023 | Dr Somashekar N |
| 14. | Stakeholder Consultation on Findings of Training Needs Assessment and discussion on draft Competency Framework at NITRD New Delhi. | 04.05.2023 | Dr Somashekar N |
| 15. | National Training of Trainers on “Post Treatment Follow up (PTFU) of TB patients” at, New Delhi. | 17.05.2023 | Dr. A. Poornima |
| 16. | Consultative meeting for EQA for sputum smear microscopy | 29.05.2023 | Dr. Reena K, Dr. Mamatha H G |
| 17. | Zonal Task Force meeting of NE Zone at Guwahati | 29.05.2023 - 30.05.2023 | Dr Somashekar N |
| 18. | As speaker, delivered a lecture on the “Overview of Current Guidelines for diagnosis & Management of DR-TB held at during the CME on Clinical | 07.06.2023 | |

| | | | |
|-----|---|--------------------------------|--|
| | updates on DR-TB held at SDS Sanatorium & Research Centre & Rajiv Gandhi Institute of Chest Diseases , Bengaluru | | |
| 19. | Zonal Task Force meeting of West Zone at Ahmedabad | 08.06.2023 - 09.06.2023 | Dr Somashekar N |
| 20. | Zonal Task Force meeting of North Zone at Srinagar, J & K State | 18.06.2023 - 19.06.2023 | |
| 21. | Virtual meeting with CDC Atlanta & FIND officials for discussion on Heat Validation method for preparing NAAT EQA panels. | 27.06.2023 | |
| 22. | Virtual Zoonotic TB study Dissemination meeting | 03.07.2023 | Dr. Reena K |
| 23. | Virtual Post CBNAAT EQA Meeting- Jharkhand | 05.07.2023 | |
| 24. | Virtual Post CBNAAT EQA Meeting- Himachal Pradesh | 06.07.2023 | |
| 25. | Microneedle Meeting with IISC Officials at Directors Chamber | 10.07.2023 | Dr Somashekar N Dr Ravichandra C Dr. A. Poornima Dr. Reena K Dr. Mamatha H G |
| 26. | OSE visit to KIMS Hubli and RIMS Raichur | 10.07.2023 to 14.07.2023 | Mrs Vinutha U Mrs Pooja Ms Lathashree Ms Benzir |

| | | | |
|-----|---|-------------------------------|---|
| 27. | WHO Regional Review Research meeting on South-south collaboration on research and innovation in TB held at NIRT, Chennai on 11th & 12th July 2023 organized by WHO | 11.07.2023 - 12.07.2023 | Dr Somashekar N |
| 28. | Virtual Meeting with NIRT Chennai for establishing CyTB Testing at NTI | 14.07.2023 | Dr. Mamatha H G |
| 29. | Consultative Workshop for Modernized Training System at NITRD Delhi | 18.07.2023 | Dr Somashekar N Dr Ravichandra C Dr. A. Poornima Dr. Mamatha H G |
| 30. | Participated as key note speaker to deliver a talk on Drug resistant Tuberculosis- Present & Future,during the Tropical Medicine Intercommand CME : TROPICON-2023 themed Tropical Medicine - Multispecialty Approach held at TG Jones Auditorium, Command Hospital Air Force, Bangalore | 21.07.2023 | Dr Somashekar N |
| 31. | CBNAAT post EQA desk review of Orissa | 21.07.2023 | Dr. Reena K |
| 32. | CBNAAT post EQA desk review of Karnataka | 21.07.2023 | Dr. Mamatha H G |
| 33. | Echo session STDC Telangana | 24.07.2023 | Dr. Reena K Dr. Mamatha H G |

| | | | |
|-----|--|-------------------------------|---|
| 34. | Truenat post EQA desk review of Karnataka | 24.07.2023 | Dr. Reena K Dr. Mamatha H G |
| 35. | Virtual meeting on Difficult to Treat TB organized by the Telangana State TB Cell besides being Guest of Honour for the 25th Clinical Session. | 25.07.2023 | Dr Somashekar N |
| 36. | Regional review meeting of IRLs and TB C&DST labs under NRL NTI at Jaipur, Rajasthan | 27.07.2023 & 28.07.2023 | Dr Somashekar N Dr. A. Poornima Dr. Reena K Dr. Mamatha H G Mrs. Vinutha U Mrs Pooja |
| 37. | Participated in the Mini course on Monitoring & Evaluation of Health Programme organized by the Division of Bio-statistics & population health, St. Johns Research Institute, Bengaluru. | 01.08.2023 - 02.08.2023 | Dr Somashekar N |
| 38. | Participated in the administrative meeting with Jt. Secretary (NTEP) at New Delhi for reviewing the activities of NTI & NITRD in enhancing the role of these institute. | 11.08.2023 | |
| 39. | Programme Managers Executive course conducted by CETI as Co-faculty | July 2023- Feb 2024 | Dr Somashekar N Dr Ravichandra C Dr. S. Uma Shankar Dr. A. Poornima |

| | | | |
|-----|---|--------------------------------|--|
| 40. | Onsite training of DTCO's on POTBs of Telangana State at STDC, Hyderabad | 21.08.2023 to 24.08.2023 | Dr. S. Uma Shankar |
| 41. | Assessment visit to BMHRC, Bhopal | 31.08.2023 | Dr. Reena K Mrs Pooja |
| 42. | Truenat Post EQA Meeting- Telangana | 01.09.2023 | Dr. Reena Dr. Mamatha |
| 43. | Truenat EQA Sensitization- West Bengal | 07.09.2023 | Dr. Reena K Dr. Mamatha H G |
| 44. | Meeting with LTs and STLS of Mumbai Division for Annexure 15A filling | 12.09.2023 | Dr. Mamatha, |
| 45. | Post assessment visit to IRL Pune | 13.09.23 to 15.09.23 | Mr. Somashekharayya Mrs. Vinutha Umashankar |
| 46. | PI meeting for the POD vaccine Trial and presented the consolidated 4-year Trial Progress Report at ICMR HQs, New Delhi | 15.09.2023 | Dr. S. Uma Shankar |
| 47. | Truenat EQA Sensitization- Jammu & Kashmir | 27.09.2023 | Dr. Reena K |
| 48. | Meeting with Dr. Rajendra Prasad, NTF Vice Chair | 06.10.2023 | Dr. Reena K Dr. Mamatha H G |
| 49. | Annual NRL EQA OSE Visit to STDC Nagpur, Maharashtra. | 09.10.2023 to 13.10.2023 | Dr. Mamatha H G, |
| 50. | NRL Review Meeting at New Delhi | 16.10.2023 to 17.10.2023 | Dr.Reena K |
| 51. | Mumbai Session ECHO, CBNAAT | 26.10.2023 | Dr. Reena K, Mrs Pooja |

| | | | |
|-----|---|--|---|
| 52. | Annual EQA OSE Visit to STDC/IRL Pune | 25.10.23 to 27.10.2023 | Dr. Reena K Ms. Lathashree S Ms. Nandini Priya BK |
| 53. | Delivered a talk on the recent updates in TB under NTEP during the PULMOCON 2023 held at Bangalore Medical College | 28.10.2023 | Dr Somashekar N |
| 54. | Truenat EQA Sensitization - Assam | 01.11.2023 | Dr. Mamatha H G |
| 55. | Truenat EQA Sensitization – Orissa (2 Batches) | 02.11.2023 | |
| 56. | Lab assessment visit to C & DST Labs at JJ Hospital and GTB Sewree | 02.11.2023 | Dr. Reena K Ms. Pooja D |
| 57. | Participated as Board member along with NIRT officials in DLSS Contractual Staff Recruitment at NTI during | 9.11.2023- 10.11.2023 & 8.02.2024- 9.02.2024 | Dr. S. Uma Shankar |
| 58. | National Training of Master Trainers on “Management of Extra pulmonary TB” on 6th November to 8th November 2023 at AIIMS, New Delhi | 01.11.2023 - 03.11.2023 | Dr Somashekar N |
| | | 06.11.2023 -8.11.2023 | Dr Somashekar N Dr Ravichandra C Dr SK Tripathy Dr A. Poornima Dr Parvathi Anil |
| 59. | Meeting with Sathya Sai Institute researchers. | 15.11.2023 | Dr. Reena K |
| 60. | Virtual DRTB Review meeting of Karnataka | 17.11.2023 | Dr. Mamatha H G |

| | | | |
|-----|--|-------------------------------|--|
| 61. | Pre conference workshop facilitator on Diagnosis of TB in different scenarios at JSS Medical College Mysore. | 22.11.2023 | Dr. Mamatha H G |
| 62. | Celebration of JAN JATIYA GAURAV DIWAS 2023 at Anganwadi Kendra, Gowripura near Bidadi, to sensitize the tribal community about TB | 23.11.2023 | Dr. A. Poornima, Mrs. Suganthi. P Mr. Jameel |
| 63. | Was the speaker for two scientific session during the International Tuberculosis Conclave on “Accelerating Progress Towards a TB-Free World: Innovation, Challenge & Solutions” held at JSS Medical College, Mysuru and delivered lectures on “Tuberculosis: the path travelled from ‘control to the ambition of ‘elimination” and “Extra-pulmonary Tuberculosis: challenges and solutions”. | 23.11.2023 - 24.11.2023 | Dr Somashekar N |
| 64. | As resource person, facilitated the State-level Training (TOT) for Medical Colleges Task Force Mechanism to accelerate ending TB held at NTI and delivered talk on “National Policy Update – Expectations from Medical Colleges” and “Treatment of DR-TB (including pre-treatment | 28.11.2023 - 29.11.2023 | Dr Somashekar N |

| | | | |
|-----|---|--------------------------------|--|
| | evaluation, treatment, monitoring, adverse drug reaction, and special situations)". | | |
| 65. | Annual EQA OSE Visit to STDC/IRL Rajasthan | 11.12.2023 to 15.12.2023 | Mrs. Vinutha Umashankar Mr. Manjunath Ms. Benazir |
| 66. | Facilitator for Virtual Echo Session Chhattisgarh – Diagnostic Care Cascade | 14.12.2023 | Dr. Mamatha H G |
| 67. | Annual EQA OSE Visit to STDC/IRL Karnataka | 15.12.2023 | Dr. Mamatha H G Dr. Kishore Ms. Pooja Mrs. Pushpa |
| 68. | NATCON | 02.02.2024 to 04.02.2024 | Dr Somashekar N Dr Ravichandra C Dr. S. Uma Shankar Dr. Mamatha H G |
| 69. | Attended 7 th Batch DTOs in person Workshop conducted by CETI in Indore, MP | 20.02.2024 to 21.02.2024 | Dr. Preetish S Vaidyanathan Dr. S. Uma Shankar Dr Ravichandra C |
| 70. | Virtually Participated in the & Inaugural CME in Commemoration of World TB Day 2024 and delivered an online guest lecture on Respiratory topics for the benefit of PGs and faculty of Department of Pulmonary Medicine, Mahatma Gandhi Medical College and Research Institute, Puducherry | 22.02.2024 | Dr Somashekar N |

| | | | |
|-----|--|--------------------------------|--|
| 71. | Attended virtual inauguration of IPHL/MCH centres by the Hon'ble Prime Minister of India during visit to Vijayapura, Karnataka | 24.02.2024 to 26.02.2024 | Dr. S. Uma Shankar |
| 72. | Awareness on Tuberculosis at Mahalakshmi Ammanni College for Women | 06.03.2024 | Dr. Preetish S Vaidyanathan Mrs. Suganthi.P |
| 73. | Mumbai Kasturba visit | 12.03.2024 to 13.03.2024 | Dr. Kishore Reddy, Ms. Pooja D |
| 74. | Visited Maddur, Mallavalli, Mandya, Saligrama and Mysore for retrieval and follow- up of V15 participants, POD Vaccine Trial. | 17.03.2024 to 19.03.2024 | Dr. S. Uma Shankar |
| 75. | Sensitization on TB at MVJ College of Nursing | 25.03.2024 | Dr. A. Poornima |
| 76. | Delivered talk on NTEP at Shridevi Medical College, Siddhartha Medical College and IMA, Tumkur | 27.03.2024 | Dr. S. Uma Shankar |

INSTITUTIONAL ETHICS COMMITTEE MEETINGS

During the period under report, the 29th NTI-IEC meeting was held in the Institute on 5th August, 2023 under the Chairmanship of Dr. Srigiri S Revadi.

- Brief presentation on one protocol submitted for ethical clearance was made by the Principal Investigator/Presenter and ethical issues pertaining to the protocol were discussed in detail. Progress of previously approved protocols were also reviewed by the NTI-IEC committee.
- The research protocol presented in the meeting was approved by the Chairman and committee members of NTI-IEC.

8.RESEARCH DOCUMENTATION CELL (RDC)

The Research Documentation cell is carrying out the responsibility to digitize and upload the published TB research in Indian context as a nodal centre of NTI. The uploaded research articles are available in the research documentation portal [**www.tbresearch.ntiindia.org.in**](http://www.tbresearch.ntiindia.org.in).

The portal includes the published TB research from the following institutions/organization:

- Indian Institute of Science (IISC), Bangalore
- Institute of Bioinformatics, Bangalore
- Mahatma Gandhi Institute of Medical Sciences (MGIMS), Wardha
- National Institute for Research in Tribal Health (ICMR), Jabalpur
- National Institute for Research in Tuberculosis (NIRT), Chennai
- National Institute of Tuberculosis and Respiratory Diseases (LRS), New Delhi
- National JALMA Institute of Leprosy and other Mycobacterial Diseases, Agra
- National Operations Research Committee, Central TB Division, Govt. of India
- National Task Force, Zonal Task Force & State Task Force of Medical Colleges
- National Tuberculosis Institute (NTI), Bangalore
- New Delhi TB Centre (NDTBC), New Delhi
- State Tuberculosis Centre's.
- Tuberculosis Association of India (TAI)

The following activities were undertaken by the Research Documentation Cell during April 2023 to March 2024:

(A) Research Documentation Cell:

- Web Administration of TB research portal www.tbresearch.ntiindia.org.in
- Correspondence with all the participating nodal centers.

- Processed access request to the documentation portal as & when requested.

(B) Institutional Ethics Committee (NTI - IEC)

- Assisted Member Secretary in organization of 29th NTI IEC meeting held on 05/08/2023 by actively involving in preparation of Minutes of the meeting and issue of IEC clearance certificates for ethically approved research protocols.
- Maintaining the records and correspondence between NTI IEC and researchers.

(C) Technical Assistance to Director's Office

- Assisted Director's office in official and technical correspondence.
- Assistance in preparation of NTI progress and achievements.
- Assisted publication section in compilation of annual reports (2021-2022) of the Institute.
- Undertaken compiling/drafting of annual reports (2022-2023) of the Institute
- Assistance in compilation of annual report of MoH&FW 2023-24.
- Compilation of material for TB India Report 2024.

(D) WHO CC Activities

- Compiled and submitted Annual Report of NTI as WHO CC pertaining to approved work plan for the period 2022-2023.
- Recirculated the approved work plan activities and revised the concept notes and tentative dates in co-ordination with respective Division Heads and HRD.
- Assistance in preparation of presentation on progress of approved work plan activities for WHO CC meeting held at Chennai.
- Coordination with respective divisions in correspondence with WHO SEARO.

(E) Miscellaneous

- Support to NTI Website Committee.