

NATIONAL TUBERCULOSIS INSTITUTE BANGALORE

ANNUAL REPORT 2013-14



Government of India
NATIONAL TUBERCULOSIS INSTITUTE
(Directorate General of Health Services)
'Avalon', No.8, Bellary Road, Bangalore-560 003
INDIA

NATIONAL TUBERCULOSIS INSTITUTE
WHO Collaborating Centre
For
Tuberculosis Research & Training

ANNUAL REPORT
2013 - 14



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(Directorate General of Health Services)
'Avalon', No.8, Bellary Road, Bangalore-560 003
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LIST OF ABBREVIATIONS

AIIMS	All India Institute of Medical Sciences
ARTI	Annual Risk of Tuberculous Infection
BCG	Bacillus Calmette Guerin
BBMP	Bruhat Bangalore MahanagaraPalika
CMO	Chief Medical Officer
CPWD	Central Public Works Department
CTD	Central Tuberculosis Division
Dte.GHS	Directorate General of Health Services
DGNM	Diploma in General Nursing & Midwifery
DMC	Designated Microscopy Centre
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment Short course
DRS	Drug Resistance Surveillance
DST	Drug Susceptibility Testing
DTO	District Tuberculosis Officer
EQA	External Quality Assurance
HIV	Human Immuno deficiency Virus
HRD	Human Resource Development
IRL	Intermediate Reference Laboratory
JALMA	Japanese Leprosy Mission for Asia
LPA	Line Probe Assay
MDR	Multi Drug Resistance
M.TB	<i>Mycobacterium tuberculosis</i>
NDRS	National Drug Resistance Survey
NIRT	National Institute of Research in Tuberculosis
NRL	National Reference Laboratory

NTI	National Tuberculosis Institute
NTP	National Tuberculosis Programme
NFSG	Non-Functional Selection Grade
OSE	On-Site Evaluation
PPM	Public Private Mix
PPs	Private Practitioners
RNTCP	Revised National Tuberculosis Control Programme
SAARC	South Asian Association for Regional Co-operation
STDC	State Tuberculosis Demonstration and Training Center
STLS	Senior Tuberculosis Laboratory Supervisor
STO	State Tuberculosis Officer
STS	Senior Tuberculosis Supervisor
TAI	Tuberculosis Association of India
TB	Tuberculosis
TCC	Technical Co-ordination Committee
TUs	Tuberculosis Units
WHO	World Health Organization

FOREWORD

It gives me immense pleasure to present the Annual report for the year 2013-2014. This report highlights the major activities undertaken by the Institute during the year of report and has a blend of both administrative and technical activities.

The Technical Activities carried out at NTI include building the capacity of human resources for effective implementation of RNTCP, and also to undertake Operational Research to strengthen the roll out of services under RNTCP. The laboratory at NTI has been designated as one of the National Reference Laboratories, which assess the quality of the sputum smear microscopy, culture and drug susceptibility testing services in the laboratory network under RNTCP. Additionally, the Institute also provides technical support to WHO, SAARC, The Union and other Partners of Global TB Control. Being a technical arm of the Central TB Division, Director NTI is the member of most National Advisory Committees and Technical Working Groups on RNTCP.

A core activity of the Institute is to support human resources development and strengthen the capacity of programme managers through skill development activities relevant to RNTCP. The training courses are organized in close consultation with Central TB Division, New Delhi. The Institute shoulders the responsibility of training medical and paramedical personnel from various states in several facets of Tuberculosis control. Induction training in RNTCP for programme managers, Training in TB/HIV, Training of Master trainers in Epi- Centre, Training on procurement & drug logistics management, and several Laboratory based training programmes were some of the important courses held at NTI during the year. The ICELT at NTI imparts trainings on WHO endorsed Newer Diagnostic Techniques for TB. In order to establish a National Database on published Tuberculosis research in India an Open Access Repository of abstracts of published scientific papers from all major national institutes has been launched under the TB Net project. The Institute also provides one-day sensitization on TB Control Programme to medical and para-medical students pursuing life sciences and nursing courses.

The Revised National Tuberculosis Control Programme (RNTCP), in collaboration with the National Tuberculosis Institute, Bangalore; U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO); will carry out a National Anti-tuberculosis Drug Resistance Survey (NDRS) in a representative sample of both

newly diagnosed sputum smear-positive pulmonary TB cases and previously treated sputum smear-positive pulmonary TB cases. This survey is expected to provide information on the prevalence of anti-tuberculosis drug resistance among new and previously treated patients at national level and will contribute to a better understanding of the Epidemiological situation of drug resistance TB in the country.

Operational research is one of the prime functions of the institute. The studies undertaken during the period under report were, Challenges in implementation of diagnostic algorithm for patients having symptoms suggestive of pulmonary TB with Smear Negative report on initial sputum examination, Improving TB case finding efficiency and management of TB cases in private health care facilities in Bangalore city; Inventory study to find out 'Under reporting' of TB cases in Tumkur district of Karnataka state; Evaluation of diagnostic algorithm among registered new Smear Negative PTB patients under RNTCP in Karnataka state; Role of additional screening by chest X-ray among persons with symptoms suggestive of Pulmonary TB and smear Negative on initial sputum examination; Effectiveness of community based observation of treatment for tuberculosis in Bangalore city.

Several National level research protocols on tuberculosis were also drafted during the period. An Operational Research workshop to augment the capacity of programme workers to undertake operations research was conducted in collaboration with CTD, The Union, CDC Atlanta and WHO. It would be of interest to the readers to go through the summary of the research in progress and papers published which are presented in brief in this report.

The NRL trains laboratory personnel and is 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). Besides these activities it also supports State level Drug Resistance Surveillance (DRS) and DOTS Plus activities. NTI supervises and monitors the quality sputum smear microscopy network of nine states. The functions of NRL comprises of training laboratory personnel and accreditation of state level Intermediate Reference Laboratories (IRLs), Medical college and other private laboratories for the culture and Drug Sensitivity testing to detect Multi-Drug Resistant Tuberculosis (MDR-TB) apart from supporting Drug Resistant Surveillance (DRS) and DOTS Plus at the state level. The NRL is also responsible for Human Resource Development and capacity building of IRLs for the management of MDR-TB. Also, a training course in Culture & DST of

Mycobacterium tuberculosis was organized in collaboration with SAARC TB & HIV AIDS Centre, Nepal.

Participation of faculty and Technical staff in various meetings, training programmes, seminars, internal evaluation visits, conferences, workshops and continuing medical education have been highlighted in this report.

A fleeting reference has been made on the organizational set up of the institute and the staff position of the institute. The role of Administrative division in ensuring the efficient execution of technical activities cannot be overemphasized and their contribution finds a mention in the report. The five units under this Division are - Establishment, Accounts, Hostel, Stores and Transport. An important achievement

Amongst the visitors to the Institute were luminaries from the Government of India of the stature of The Joint Secretary, Sri Anshu Prakash, Min.of H&FW, GOI, Sandra Elizabeth Roel, the 1st lady of Georgia, and Shri P.K. Pradhan, former Union health Secretary, GOI & currently Hon. Member of CAT, Bangalore.

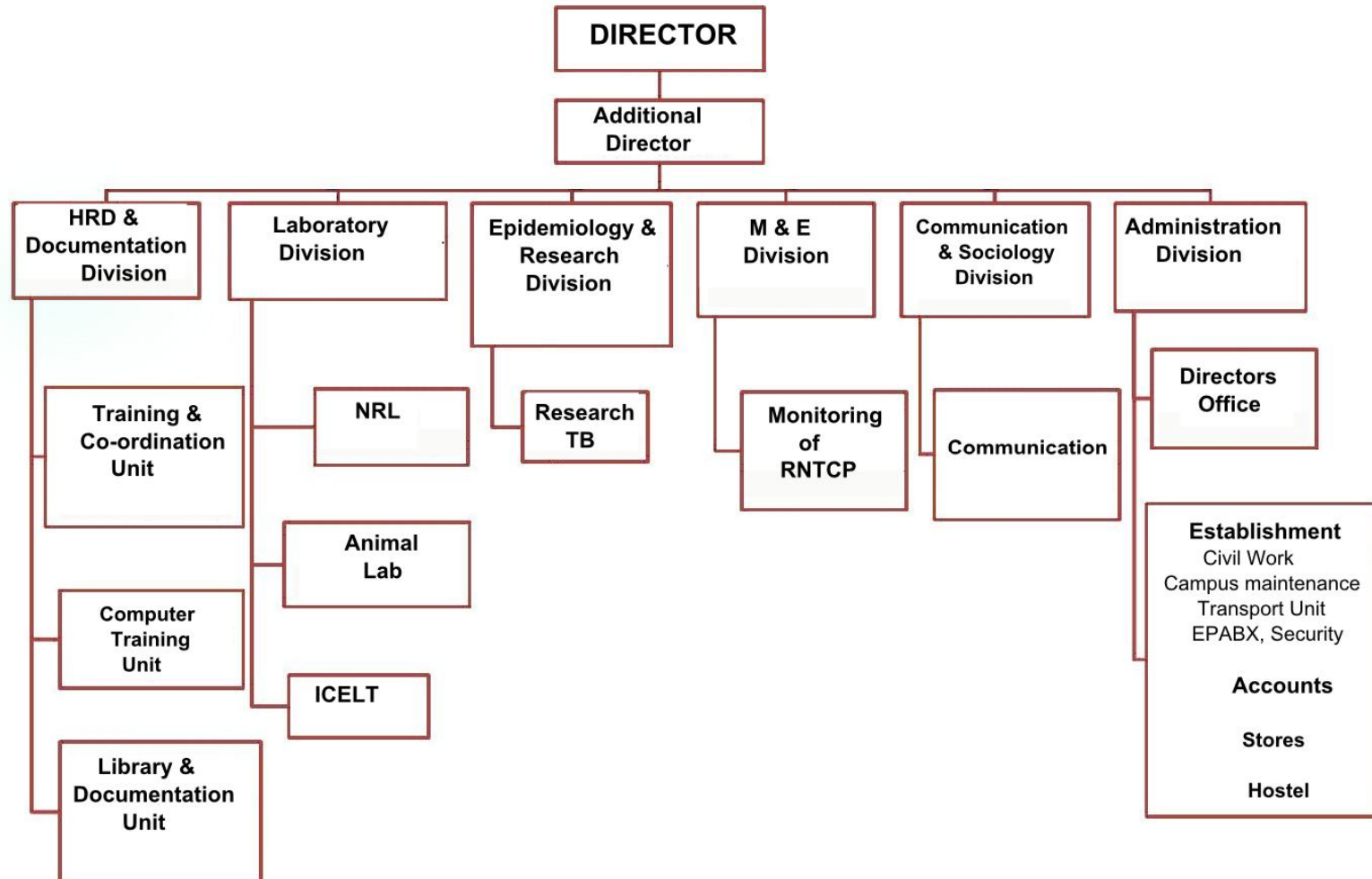
I acknowledge the co-operation, hard work and diligence of all the members of the NTI family and I solicit the same degree of motivation and dedication from all in times to come.

I also express my gratitude to the Director General Health Services and the Central TB Division for their continuous guidance, support and encouragement.

Dr. Prahlad Kumar
Director

Dated: 18th August 2014
Place: Bangalore

ORGANOGRAM



1. Human Resource Development & Documentation

A core activity of the Institute is to support human resources development and strengthen the capacity of programme managers through skill development activities relevant to RNTCP. The three units under this Division are Training and Coordination Unit, Computer Training unit and Library & Documentation Unit. As per the decision taken in the meeting of the officers of the Central TB Division and Directors of National Institutes in the month of January 2013, NTI has been assigned to play a lead role in Human Resources Development for RNTCP in the country which includes overall training need assessment, co-ordination and conducting training courses, post training evaluation, and strengthening of State TB Training and Demonstration Centers.

Training and Coordination Unit

The aim of RNTCP training programmes is to ensure that programme managers, teachers of medical colleges, medical officers and paramedical staff are equipped with the necessary skills and knowledge required to implement and sustain TB control activities including quality assured diagnosis of TB, management of TB-HIV co-infection, management of drug resistant TB, data management and forging partnerships with all sectors involved in TB control activities.

All RNTCP training activities at NTI are organized in coordination with the HRD unit at Central Tuberculosis Division (CTD). The proposed annual plan for training activities to be held at NTI is prepared for the ensuing year and sent to CTD. The CTD communicates the annual training plan to all State TB Officers. Prior intimation of the annual training plan ensures staggered nomination of candidates in appropriate batch sizes and also provides adequate time to secure release of participants from their offices for attending the training programmes. Also, the Training Unit works in tandem with the hostel, stores and transport units of the institute to facilitate smooth organization of training activities.

Training & Capacity Building

The Institute conducted several training courses and workshops on various facets of TB control during the year 2013 – 14 to cater to the ever-increasing demand of trained manpower, the details of which are briefly appended below.

1. Revised National Tuberculosis Control Programme (RNTCP) Modular Training

Sl. No.	Category of personnel	Period	No. of Participants
1.	State and District level programme Managers and faculty from Medical colleges	6 th – 18 th May 2013	23
2.		10 th – 22 nd June 2013	23
3.		29 th July – 12 th August 2013	29
4.		16 th – 28 th Sept 2013	25
5.		11 th – 23 rd Nov 2013	25
6.		20 th Jan – 1 st Feb 2014	33
7.		3 rd -15 th March 2014	19

2. Master Trainers training in NIKSHAY

Sl. No.	Category of personnel	Duration	No. of Participants
1.	STO, DTO, WHO RNTCP Consultants, Medical Officers, Statistical Assistants and Data Entry Operators	1 st -2 nd , 4 th – 5 th , 8 th – 9 th , 11 th – 12 th , 15 th – 16 th , 18 th – 19 th , 24 th – 25 th , July 2013	174
2.		19 th March 14	29
3.		21 st March 14	33

3. Training on Procurement and Supply Chain Management

Sl. No.	Category of personnel	Period	No. of Participants
1	State and district level programme managers	13 th – 16 th Jan 2014	35
2		24 th – 27 th Feb 2014	30

4. Training in External Quality Assessment

Sl. No.	Category of personnel	Period	No. of Participants
1	DTOs, Microbiologists, STLSs and LTs	27 th – 31 st May 2013	10
2		2 nd – 6 th Sept 2013	15
3		6 th -10 th Jan 2014	19

5. Quality Assurance of Sputum Smear Microscopy for Private Labs

Sl.No	Category of personnel	Period	No. of Participants
1	Lab personal's from Bangalore	4 th to 6 th Sep 2013	6

6. Training in Culture (solid) and Drug Sensitivity Testing

Sl. No.	Category of personnel	Period	No. of Participants
1	Microbiologist and LTs from IRLs	21 st – 31 st Oct 2013	12
2		9 th – 19 th Dec 2013	10
3		3 rd -13 th Feb 2014	13

7. Training in Line Probe Assay for Microbiologists & Laboratory Technicians

Sl. No.	Category of personnel	Period	No. of Participants
1	Laboratory technicians and Microbiologists	1 st – 5 th April 2013	03
2		7 th -11 th Oct 2013	11

8. MGIT Second Line Drug Susceptibility Testing

Sl. No.	Category of personnel	Period	No. of Participants
1	Microbiologists, Laboratory Technicians, Assistant Professors and Technical Officers	24 th – 28 th March 2014	09

9. Collaborative training activities with

- a. SAARC TB & HIV/AIDS Center* SAARC Regional Training of Trainers for Microbiologists on Culture and DST of M.tuberculosis

Sl. No.	Category of personnel	Period	No. of Participants
1	Microbiologists	23 rd – 29 th April 2013	10

- b. NTP Nepal Training on Tuberculosis Management*

Sl. No.	Category of personnel	Duration	No. of Participants
1	District TB Leprosy Supervisor, Laboratory Asst, Sr. Clerk, PHI	17 th – 21 st June 2013	10
2	ANMs, AHW, SAHW, LHLI	16 th -20 th Dec 2013	11

c. CTD-NTI- CDC- The Union Operations Research Capacity Building workshop and project mentorship for professionals working with the RNTCP

Sl. No.	Category of personnel	Duration	No. of Participants
1	Director STDC, WHO RNTCP Consultants,STO, DTO, Medical Officers and Microbiologists	24 th – 29 th June 2013	15

d. World Health Organization (WHO) - Training on Tuberculosis Management and TB Laboratory Quality Assurance

Sl. No.	Category of personnel	Duration	No. of Participants
1	WHO fellows from Sri Lanka	10 th – 28 th June 2013	02
2	Laboratory Personnel from Timor-Leste	16 th – 20 th December 2013	02

10. Sensitization on TB Control Programme for Undergraduate/ Post graduates / medical / paramedical students:

The Institute also provides one-day sensitization on TB Control Programme to medical (including Ayurvedic, Homoeopathy & Unani), para-medicals, under graduate and post graduate students pursuing life sciences and Nursing courses. The scientific gallery was visited by a total 2013 students in 47 batches from 34 educational institutions during the year under report. The details of the visits are furnished below:

Sl. No	Date	Category of students	No. of students	Organisation
1	01-04-13	Bsc(N) GNM	31 09	Sri Shantini college of Nursing Bengaluru.
2	08-04-13	PCBsc(N) GNM	07 31	Videhi college/ school of nursing, Bengaluru
3	09-04-13	Bsc(N) PCBsc(N)	52 03	
4	16-04-13	Bsc(N)	50	DevrajUrs college of nursing, Bengaluru
5	17-04-13	Bsc(N)	55	Global college of nursing, Bengaluru
6	18-04-13	Bsc(N) GNM	03 43	
7	30-04-13	Bsc(N)	24	Chinmaya college of nursing
8	02-05-13	Bsc(N)	58	Padmashree Inst. of nursing Bengaluru.
9	11-06-13	Medical Asst. Trainees	55	Airforce medical training centre, Bengaluru.
10	17-06-13	Bsc(N)	40	NIMHANS College of nursing, Bengaluru
11	18-06-13	Bsc(N)	34	Lakshmi memorial college of nursing, Bengaluru
12	24-06-13	Bsc(N)	18	Acharya college of nursing, Bengaluru
13	12-07-13	Bsc(N) GNM	29 07	St. Mary's Inst. of nursing Bengaluru.

Sl. No	Date	Category of students	No. of students	Organisation
14	15-07-13	CPHN Trainees	26	Health & F.W Dept, Govt. of Karnataka, Bengaluru
15	30-07-13	Bsc(N)	29	SSSIHMS College of nursing, White field ,Bengaluru
16	28-08-13	Students of MSW	20	Oxford college of Arts , Bengaluru.
17	06-09-13	Bsc(N)	46	Faith Inst. of nursing, Bengaluru
18	11-09-13	Medical Assistants	59	Medical Training centre, Air force Bengaluru
19	24-09-13	Bsc(N)	48	Govt. college of nursing, Calicut, Kerala
20	25-09-13	Medical P.G's	10	Armed forces medical college, Pune, Maharashtra
21	30-09-13	PC.Bsc(N) Bsc(N)	17 28	Narayana Hrudayalaya college of Nursing, Bengaluru
22	23-10-13	Msc Microbiology	35	Maharani science college for women, Bengaluru.
23	24-10-13	Bsc.Nursing	24	BhagawanMahaveerjain college of nursing, Bangalore.
24	06-11-13	Bsc(N)	47	Gautham college of nursing, Bengaluru
25	07-11-13	GNM	47	Gautham school of nursing, Bengaluru
26	08-11-13	GNM Bsc(N)	35 17	Gautham school /college of nursing, Bangalore.
27	29-11-13	Bsc(N)	60	Krupanidhi college of nursing, Bengaluru
28	04-12-13	Medical Assistants	53	Medical training centre, AirforceAgram, Bengaluru.
29	09-12-13	Msc(N)	02	Maruthi college of nursing, Bangalore.
		Bsc(N)	18	
		GNM	2	

Sl. No	Date	Category of students	No. of students	Organisation
30	18-12-13	Bsc(MLT)	60	Acharya Inst. Of Health science, Bangalore
31	19-12-13	Bsc(MIT)	35	
32	08-01-14	Bsc(N)	35	Dhanvantri college of nursing, Bengaluru
		GNM	25	
33	09-01-14	Msc(N)	10	City college of nursing, Bengaluru
		Bsc(N)	50	
34	17-01-14	Msc(N)	08	St.John"s college of nursing, Bangalore.
		Bsc(N)	41	
35	22-01-14	Bsc(N)	48	St.IgnatiusInst.of Health science, Honnavar,Karnataka
36	23-01-14	Bsc(N)	40	Chinmaya Inst. Of Nursing, Bangalore
37	28-01-14	Msc(N)	05	Garden city college of nursing, Bangalore
		Bsc(N)	55	
38	29-01-14	Msc(N)	25	Sri Ramakrishna Inst. Of Paramedical science, Coimbatore
39	31-01-14	Bsc(N)	50	St.John"s college of nursing, Bangalore.
40	03-02-14	Bsc(N)	60	St.Philomina's college of nursing, Bengaluru.
41	05-02-14	Bsc(N)	57	St.Martha's college of nursing, Bangalore.
42	10-02-14	Medical Assistants	20	Airforce Medical Training centre, Bangalore
43	13-02-14	Bsc(N)	58	DevrajuUrs college of nursing, Tamaka, Kolar
44	04-03-14	Bsc (Microbiology)	14	Vijaya college, Bengaluru

Sl. No	Date	Category of students	No. of students	Organisation
45	07-03-14	Msc (N) & BSc (N)	02 44	Dr. Shyamalareddy college of nursing, Bengaluru
46	12-03-14	Bsc(N)	54	Lakshmi memorial college of nursing, Bangalore.
47	19-03-14	Medical Assistants	55	Air force medical Training centre, Bangalore

11. To promote Advocacy Communication and Social Mobilization activities one day orientation/sensitization was conducted for students of the life sciences of various institutes as follows :

SL.NO	CATEGORY OF STUDENTS	NO. OF STUDENTS
01	Msc (Nursing)	52
02	Bsc (Nursing)	1320
03	DGNM	225
04	Msc/Bsc (Microbiology)	49
05	Bsc (MIT)	35
06	Bsc (MLT)	60
06	Post graduate Medical students.	10
07	Medical Assistants	242
08	MSW Students	20
Total number of students		2013

International Center of Excellence for Laboratory Training (ICELT)

International Center of Excellence for Laboratory Training, supported by FIND, RNTCP and UNITAID, was started in NTI Bangalore with the mission “to support the scaling up of laboratory capacity building in India and Asia by providing hands-on training courses in the diagnosis and monitoring of major infectious diseases such as TB, HIV/AIDS and Malaria”. Presently, ICELT is imparting trainings on WHO endorsed Newer Diagnostic Techniques for TB and its drug resistance. In addition to Line Probe Assay and Liquid Culture, this year training was also conducted on GeneXpert MTB/RIF, the latest technique in TB diagnostic armamentarium. GeneXpert MTB/RIF is a cartridge based nucleic acid amplification test (CB NAAT) that can diagnose TB and Rifampicin resistance in less than two hours.

The training activities held in ICELT during the year 2013-14 are given below:

Sl. No.	Name of training	Participating laboratories	Date	Number of participants
1	Liquid culture Training	IRL-Ranchi, Jharkand. IRL-Agra, U.P. IRL-Raipur, Chattisgarh. IRL-Kolkata, West Bengal. IRL-Odisha.	15 th – 26 th Apr, 2013	05
2	Line Probe Assay	BHU-Varanasi, UP. AMU-Aligarh, UP. STDC-Agra, UP. STDC- Kolkata, West Bengal. FIND- New Delhi.	26 th – 30 th August, 2013	05
3	Liquid culture Training	C&DST lab-Siliguri, WB. IRL-Agra, U.P. IRL-Patiala, Panjab. C&DST lab-KIMS, Hubli. BHU-Varanasi.	10 th – 20 th Sep, 2013	05
4	Line probe Assay	GMC-Aurangabad. IRL-Hyderabad. JJ hospital-Mumbai. North Regional Microbiologist, Kolkata.	27 th – 30 th 2014	05
5	Liquid culture Training	KIMS-Hubli, Karnataka. New Delhi TB center, Delhi. IRL-Chennai, Tamilnadu. JJ Mumbai Hospital-Mumbai.	10 th – 21 st Mar, 2014	05

Other activities conducted by the officers of the Training and co-ordination unit

- As a member of the internal evaluation team Dr. C. Ravichandra visited Sirmaur district (Himachal Pradesh) from 27th – 31st May 2013.

Administrative activities

- a. Dr. Preetish S. Vaidyanathan, CMO-NFSG discharged the duties as Division Head, HRD & Documentation Division, I/c Establishment and Chairman of Purchase Committee till 31st December 2013
- b. Dr. Preetish S. Vaidyanathan, CMO-NFSG was involved in preparation of Annual report of NTI, WHO CC report of NTI and was also involved in the preparation of NTI Bulletin.
- c. Dr. Ravichandra C, CMO-NFSG discharged the duties as Division Head, HRD & Documentation Division, I/c Hostel, Chairman of Condemnation committee and Local Purchase Committee

Computer Training Unit

The Computer Training Unit supports the following major areas:

- Facilitate in organizing need based training with relevance to programme and customized application related trainings
- To support Information and Communication Technology (ICT) Initiatives in the context of the Programme.
- To support Data Management and Statistical Analysis of research studies and other MIS.
- To cater to the maintenance of website / upkeep / up-gradation of IT infrastructure of the Institute.

I. ICT Related Project Initiatives:

a. National Drug Resistance Survey:

The Computer Training Unit has been entrusted with the responsibility of implementing the data management module for the forthcoming National Drug Resistance Survey. The Data management module for the survey would take the benefits of IT advancements like bar coding of OR Sputum samples to streamline the receipt of samples from over 120 Tuberculosis Units across the nation at NTI. The development of the said module has been initiated and currently under way

b. TB-Net Project - Establishing a National Database on Tuberculosis - Phase II:

The Phase II of the TB-Net project was initiated upon obtaining approval from the Department of Biotechnology, Ministry of Science and Technology, Government of India. An Open Access Repository of abstracts of published scientific papers from all major national institutes has been launched vide URL <http://tbresearch.ntiindia.org.in>. It attempts to collect, preserve and disseminate the intellectual output of these Institutes available in peer-reviewed journals. Another site <http://ntiresearch.ntiindia.org.in> facilitates archival of research protocols and other documents which are not published and are intellectual property of NTI Bangalore.

c. Website Update

Design & develop of NTI website is in progress. Discussion & meeting were conducted with the developers related to NTI website

d. Model DOTS Area

Currently efforts are underway to develop a Model DOTS district in Kolar which would incorporate all components outlined in the National Strategic Plan for TB control (2012-17) including Case based electronic recording & reporting.

A team of experts from CDC Atlanta consisting of Dr Miler, Dr Eric Carlson and three students Ms. Myschall, Ms Eric Kader & Ms. Lindzui from university of Texas visited NTI on 28th May to 7th June 2013. Discussions were held at NTI and Field visit to Karnataka STO Office, STDC and the proposed Model Dots Area of Kolar District including DTC Kolar, RL Jallappa Medical College Hospital, District Hospital, TB Unit, PHI & interview with Private Practitioners & TB Patients were conducted.

e. Mr. R Jitendra, I/c Computer Training Unit has co-authored in the following research papers:

- i. An article on "NIKSHAY- harnessing Information technology for delivery of enhanced TB care' to the NTI Bulletin Volume no 48(1 & 4) 2012 and the same has been published in NTI Bulletin.
- ii. An article on "Research Documentation Portal: A walkthrough from concept to Reality" to the NTI Bulletin Volume no 49(1 & 4) 2013 and the same has been published in NTI Bulletin.
- iii. Compilation & Consolidation of NTI Monthly, Quarterly & Annual reports.
- iv. Preparation of NTI annual report for the year 2012-13
- v. Compilation & Consolidation of NTI Bulletin Vol.47/1 & 4, 48 /1& 4, 49/1&4, hosted onto NTI website.

II. IT Support Services:

1. The unit also handles matters pertaining to the Annual Maintenance Contract of Computers and peripherals with a full time resident engineer and AMC of UPS.
2. Technical inputs pertaining to Internet/ Server / Softwares / Audio Visual Equipments and infrastructure expansion are entrusted to the unit.
3. Updated and installed the latest version R.21 of the mailing server. Feasibility for conversion of Broadband to Internet lease line with ISP providers is underway.
4. Periodic technical server configuration / proxy server configuration for Internet services & maintenance there off are being under taken regularly.
5. Involved in providing technical Inputs and discussions regarding furnishing of Kalaniketan Auditorium with Audio / Visual presentation and networking requirements.

III. Support to other workshops / Meetings/ CME

1. Mr.Jitendra I/c CTU facilitated the aforesaid 7 Nikshay trainings at Computer training Unit, NTI wherein over 185 Master trainers from all over India were trained.
2. Nikshay Training of Master Trainers was conducted in Seven Batches on 1st -2nd, 4th - 5th, 8th - 9th, 11th - 12th, 15th - 16th, 18th - 19th, 24th - 25th July 2013 at Computer Training Unit.
3. Attended National OR dissemination workshop organized by CTD, New Delhi on 25th& 26th Aug 2013 at New Delhi and the presentation were made on operations research carried out by NTI, PPM Project and research documentation of all the published research done at NTI.
4. Attended TB-Net meeting held at JALMA, Agra on 23 Aug '13 and presented NTI activity on <http://tbresearch.ntiinida.org.in>, the national repository of TB research. Meeting attended by Advisor DBT, GoI and other representatives from TB-net member institutions.

5. One day NIKSHAY training was conducted on 27th September 2013 in which staffs from ERD Division, 2 NTI Lab Technicians and Contractual Microbiologist & 3 officials from M&E division participated.
6. Attended meeting on 3rd July 2013 with Ms Rigveda and MrManjot from CHAI Foundation; DrNeerajKulshrestha, Director NTI,Dr V K Chadha NTI, DrKiranRade, DrMyankGhedia from CTD; to discuss Mathematical modeling.

Library and Information Services & Documentation

The institute has a specialized Category II health scientific library as per the guidelines of the library Review Committee report, Government of India New Delhi. The categorization is based on Resources, Services and Dissemination of Information & Automation activities. The collections include core periodicals on TB and Respiratory diseases and its back volumes, published books on TB and multi disciplinary aspects, reports, proceedings, souvenirs, WHO unpublished documents,, selected papers and non-print media viz., slides, cassettes, transparencies, CD-ROMS, etc.

Library & Information Service section holds the responsibility of building up the appropriate collection, its progressive development, and organization of information services to provide increased access to its resources. The library provides the information needs of the faculty, staff of the Institute besides Medical and Para-medical trainees and delegates / visitors from medical fraternity. The library also coordinates the activities of the Editorial committee and preparation of NTI Annual report. Assistance in printing was provided to the different divisions of the Institute.

Documents / Articles published:

1. NTI annual report for the year 2012-13
2. NTI Bulletin Vol.49 hosted onto NTI website.

Additional Activities:

- 1) The copies of the following documents were archived and database updated:
 - a) Research Protocol including work instructions endorsed by the Director.
 - b) Final cleansed data base in the format recommended by the documentation division.
 - c) Final analysis undertaken in terms of tables, figures etc.
 - d) Published article with Bibliography.
- 2) Initiated action for binding back volumes of periodicals and journals for future reference pending since 2005.

- 3) Dispatched letters to the existing suppliers of periodicals, journals calling to mail proforma invoice for renewal of subscription for the year 2014.
- 4) Renewed subscription of over 12 journals (inclusive of six online) & periodicals for the year 2014.
- 5) After receiving the approval from Director subscribed the following six journals online
 - a. INDIAN JOURNAL OF MEDICAL MICROBIOLOGY.
 - b. JOURNAL OF CLINICALMICROBIOLOGY
 - c. THE INTERNATIONAL JOURNAL OF TUBERCULOSIS AND LUNG DISEASES
 - d. INTERNATIONAL JOURNAL OF EPIDEMIOLOGY
 - e. TUBERCULOSIS
 - f. LANCET for the year 2014.
- 6) I/c library assisted the Nominated officer in physical stock verification of E & R Division and completed the assigned job.

The printing section took up printing of various research forms/schedules and forms required for HRD, Establishment, laboratory division, Hostel and Accounts.

2. LABORATORY

The laboratory at NTI has been designated as one of the National Reference Laboratories, which assess the quality of the sputum smear microscopy, culture and drug susceptibility testing services in the laboratory network under RNTCP. As an NRL, NTI supervises and monitors the quality of sputum smear microscopy in the network of laboratories in the nine states allocated viz., Bihar, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan and West Bengal.

The NRL trains laboratory personnel and is 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). Besides these activities it also supports State level Drug Resistance Surveillance (DRS) and DOTS Plus activities.

The NRL is also monitoring two new NRLs:

1. NRL at Bhopal Memorial hospital & Research Centre, Bhopal
2. NRL at Regional Medical Research Centre Bhubaneswar

The National Reference Laboratory is quality tested by WHO Supra National Reference Laboratory (SNRL) Prince Leopold institute of Tropical Medicine Antwerp, Belgium.

A. Quality Assurance System (QAS):

The Quality Assurance (QA) system for sputum smear microscopy in RNTCP consists of Internal Quality Control (IQC), External Quality Assessment (EQA) and subsequently Quality Improvement (QI) of the laboratory services.

B. External Quality assessment (EQA):

EQA is performed by an On-Site Evaluation (OSE) visit. The components of EQA include, infrastructure assessment, panel testing of the laboratory staff and analyzing data from the Random Blinded Re-Checking (RBRC) at the district level.

The OSE visit facilitated the STDC and STC in reviewing the implementation of EQA, especially the problems of non-availability of LTs/DTOs, staff structure in STDC, training, reagents quality, disposal of infectious materials and RBRC activities.

The annual EQA-OSE visits to IRL Karnataka, IRL Pune Maharashtra, Madhya Pradesh, Bihar and Jharkhand, West Bengal , Odisha and Rajasthan were conducted between 15-04-13 to 9-02-14 by Mrs. Reena K (Consultant Microbiologist) , Dr N. Selva Kumar (Consultant Microbiologist), Mr.George Sebastian (Junior Bacteriologist),Ms., Anupurba Roy Chowdhury (Sr. LT), Manjunath G (LT) and Mr.Ranganatham. A. (LT)

Accreditation of Laboratories

Accredited Mycobacteriology laboratories are a pre-requisite for the efficient diagnosis and follow-up of MDR-TB patients. Towards this objective, efforts are being made to establish IRLs to cater to the diagnostic and follow-up needs of DR-TB patients, in each state. Provision also has been made for inclusion of laboratories of Medical Colleges and the Private Sector, interested in participating in the diagnosis and follow-up of such cases.

The Microbiologists and Laboratory Technicians from such laboratories are trained by the NRL. Subsequently, a pre-assessment visit is undertaken by a central team, the objective of which is to assess the suitability of the laboratory infrastructure and installation of equipments.

Panel cultures are then exchanged between the NRL and the IRL for proficiency testing and retesting. A satisfactory performance is determined in terms of concordance of more than 90% for Isoniazid (H) and Rifampicin (R); more than 80% for Streptomycin(S) and Ethambutol (E). The laboratory carries out investigation of errors if any in case of an unsatisfactory performance in the proficiency testing and informs the NRL regarding the any corrective action taken.

A pre-accreditation visit is then undertaken by a central team to assess the laboratory's technical performance, prior to formal accreditation. Accreditation is initially for a period of two years. During this phase, the accredited laboratory is required to regularly and satisfactorily participate in proficiency testing exercises conducted by the NRL. The minimum number of participations in the proficiency testing is once prior to and twice within the first year of accreditation. Following this the laboratory is required to undergo proficiency testing at least once in every two years.

An onsite – evaluation of the laboratory, is undertaken within the first year of grant of accreditation. A re-assessment is performed before the lapse of two years of accreditation, for which the laboratory applies six months in advance. Thereafter, re-assessment of the accredited culture and DST facility is conducted every two years. The details of the accreditation visits made are as under:

Labs accredited for solid culture in 2013-14

- a. IRL Jammu
- b. IRL Srinagar
- c. BJ Medical college Pune

Labs accredited for liquid culture in 2013-14

1. **1st line drugs**
 - a. Metropolis Mumbai
2. **2nd line drugs**
 - a. P.D. Hinduja for secondline drugs

Labs accredited for LPA in 2013-14

1. KIMS Hubli
2. Metropolis
3. GTB Sewri Mumbai
4. DFIT Darbhanga

Proficiency Testing of accredited laboratories in LPA

Annual proficiency testing was conducted for the following thirteen labs by sending panel of 20 cultures in March 2013.

1. IRL Cuttack, Odisha
2. IRL Kolkata, West Bengal
3. IRL Ajmer, Rajasthan
4. IRL Nagpur, Maharashtra
5. IRL Ranchi, Jharkhand
6. JJ Medical college Mumbai, Maharashtra
7. Bhopal Medical Hospital & Research Centre, Madhya Pradesh
8. IRL Karnataka
9. SMS Medical College, Jaipur.
10. IRL Indore, Madhya Pradesh
11. IRL Patna
12. IRL Pune, Maharashtra

Proficiency Testing of accredited laboratories in Solid Culture

Annual proficiency testing was conducted for the following thirteen labs by sending panel of 20 cultures in March 2013.

1. IRL Cuttack, Odisha
2. IRL Kolkata, West Bengal
3. IRL Ajmer, Rajasthan
4. IRL Nagpur, Maharashtra
5. IRL Ranchi, Jharkhand
6. JJ Medical college Mumbai, Maharashtra
7. Bhopal Medical Hospital & Research Centre, Madhya Pradesh
8. Choithram Hospital & Research Centre, Indore, Madhya Pradesh
9. SMS Medical College, Jaipur.
10. IRL Indore, Madhya Pradesh
11. Mahatma Gandhi Institute of Medical Sciences, Sewagram, Wardha, Maharashtra
12. IRL Pune, Maharashtra
13. RMRCT Jabalpur, Madhya Pradesh

Proficiency Testing of accredited laboratories in Liquid Culture

Annual proficiency testing was conducted for the following four labs by sending panel of 20 cultures in March 2013.

1. SMS Medical College, Jaipur.
2. P.D. Hinduja Hospital Mumbai, Maharashtra
3. Super Religare Laboratories Ltd, Mumbai, Maharashtra
4. IRL Nagpur, Maharashtra

Mentoring of newly formed NRL's:

- a. A NRL Mentoring visit to NRL RMRC Bhubhaneshwar was conducted by Dr. Selvakumar from 17.2.14 to 19.2.14
- b. A NRL Mentoring visit to NRL BMHRC Madhya Pradesh was conducted by Ms. Reena K from 19.2.14 to 21.2.14

External Quality Assurance for Mycobacterial Culture and DST

Sl. No.	Proficiency tested for	Month of Reporting	Month of passing	Testing agency	Methods / Media Used	Proficiency Result
1	10 th round: Sputum smear microscopy	April 2013	September 2013	STAC, Kathmandu, Nepal	ZN Staining	100%
2	19 th round: Solid & Liquid Culture DST	February 2013	July 2013	Prince Leopold Institute of Tropical Medicine (SNRL), Antwerp, Belgium	DST by PPM and MIC method for First and Second Line by LJ and MGIT 960	Successfully Passed
3	20 th round: Solid & Liquid Culture DST	February 2014	Results awaited	Prince Leopold Institute of Tropical Medicine (SNRL), Antwerp, Belgium	DST by PPM and MIC method for First and Second Line by LJ , MGIT 960, LPA and Gene Xpert	Successfully Passed

Specimens received from various states & processed at NTI during the period April 2013-March 2014

Total number of specimens registered	1977
Total number of specimens registered from patients referred to NTI	66
Total number of sputum specimen of MDR suspects registered for DOTS Plus under Plan B	06
Total XDR suspect culture samples registered	1829
Total Cultures samples registered for Proficiency testing received	30
Total Cultures samples registered for 20 th round of Proficiency testing received from Belgium	20
Total number of specimens put up for the Primary culture	62
Total number of specimens subjected for Identification tests	825
Total number of sensitivity tests done by Proportion method both for first and second line drugs using LJ	585
Total no. of Drug Susceptibility test performed using MGIT	1058
Total no. of Line Probe Assay performed	648
Total no. of specimens subjected to Gene Xpert	27

Animal Model Research Unit (AMRU):

The main objective of the unit AMRU is to experiment in Laboratory Animals and their utility in TB Control. In 1979, Breeding wing became operational and breeding of laboratory animals, mainly albino guinea pigs, was started and maintained thereafter, ensuring homogeneity of the successive generation of the stock animals. In 1981, preliminary in-vivo tests started on a modest scale not only to get familiarized with the procedures, but also to standardize various techniques.

Animal Model Research Unit (AMRU) is registered under Breeding of & Experiments with the Committee for the Purpose of Control & Supervision of Experiments on Animals (CPCSEA), Ministry of Social Justice & Empowerment. Studies involving animal experimentation are subject to approval by the Institutional Animal Ethics Committee (IAEC) constituted as per the prescribed guidelines, which includes a nominee from CPCSEA. In this regard, all the guidelines of Government of India are complied with. In view of advancement in TB research, modernization and 'facility safeguards' a Bio-Safety Laboratory (negative pressure) facility & an open shelter for retired breeders have been established at NTI.

Status of laboratory animals

Breeding and maintenance of homogenous stock laboratory animals Guinea pigs

Major Activities

- A. Status of laboratory animals;
 - i. During the period of reporting under reference a total of 177 albino guinea pigs were raised in healthy condition. Appropriate preventative measures were taken to check outbreak of diseases among breeding stock. Outdoor shelter for Retired Breeders was maintained in good condition.
 - ii. Monthly and Quarterly reports on monitoring the experiment on animals in organizations / institutions under Dte.GHS were prepared in the prescribed format for timely submission to ADG (EPI) with a copy to DDG TB.

3. EPIDEMIOLOGY AND RESEARCH DIVISION

Research in TB control and related areas is one of the primary functions of the Institute. The Institute has put in place the mechanism of Technical Coordination Committee (TCC) for thorough technical discussion and exchange of information before finalization of the research protocol. The projects are also screened by the Institutional Ethics Committee for addressing the ethical issues. The progress of the project is monitored by the TCC at periodic intervals. The findings of the research studies are also discussed in the TCC before they are either presented in technical conferences or published in journals.

- The ERD conduct large scale community as well as facility based epidemiological, operational and implementation research in TB all over the country - preparing generic protocols, planning, organizing, implementing, monitoring, supervising, besides data collection, data management, analysis and report writing.
- Providing technical and operational support to STDC's, other state and central level health institutions in the country in conducting TB epidemiology studies and Operational Research (OR).
- Mathematical modeling in TB.
- Providing mentorship and training to state level officials in operational research.
- Monitoring and supervision of programme activities.
- Training to WHO fellows in TB epidemiology.
- Actively Participate in CTD sponsored activities including expert group meetings, workshops etc.
- Present research papers and deliver guest lecturers in conferences and workshops.
- Provide technical support to other countries in conducting TB epidemiology studies and in assessment of epidemiological situation.
- Maintaining a data base of OR studies carried out in the country.
- Assisting CTD in Internal evaluations

A. RESEARCH STUDIES

1. *Improving TB case finding efficiency and management of TB cases in private health care facilities in Bangalore city*

Objectives:

1. To sensitize private health care providers (PPs) about standard TB diagnostic procedures and treatment regimen including direct observation of treatment
2. To set up provider networks for TB case finding and treatment
3. To implement recording and reporting system in Private Health Care Facilities (PHCFs)
4. To describe the outcome of activities undertaken in terms of case finding, treatment outcome and lessons learnt.

Methodology in brief:

Major study procedures involved are (i) Mapping of PHCFs and public health facilities (ii) Networking of health facilities; private – private, private-RNTCP (iii) Sensitization of PPs in International / Indian Standards for TB Care (INDSTC) and proposed project (iv) sensitization of all RNTCP officials about the project (v) Establish and implement recording and reporting system in PHCFs : TB suspect card, treatment card, health facility TB register, TB notification format (vi) Training of private labs in sputum microscopy (vii) Collect and manage data.

Progress during the period of report:

Clearance from institutional ethics committee was obtained. Mapping of PHCF was done. Study formats and Project guide were prepared as per International Standards of TB Care during the period.

The Sensitization meeting involving STO - Karnataka, STDC-Director, BBMP Co-ordinator, WHO RNTCP Consultant, Ex - President of Family Physician Association, Bangalore & MOTC of Dasappa TU took place at NTI and minutes were circulated. Three day training in sputum microscopy for private lab technicians was conducted at NTI. A checklist was prepared to visit the Private labs for conducting on-site training for private LT's. All the private labs were

visited for situational analysis of the present status of sputum microscopy and onsite training. The field teams visited all the PP's, to complete the registration process and facilitated assigning HEID codes for TB notification. Relevant data entry was undertaken.

Status:

130 PP's were mapped. Project guide is under revision as per INDSTC. Study is under progress.

2. Role of additional screening by chest X-ray among persons with symptoms suggestive of Pulmonary TB and smear Negative on initial sputum examination

Objective:

To find out the proportion of patients having a normal chest X-ray out of smear negative PTB patients diagnosed by using X-pert MTB/RIF

Methodology in brief:

PTB suspects smear negative on initial sputum examination, 15 yrs and above in age comprised the study population. An additional spot sputum specimen was obtained from smear negative PTB suspects reporting at the study site, for subjecting to Gene X-pert. Chest X-ray PA view of the patient was taken on the same day. X-ray films were read by Chest specialist/Physician at the study site and later at NTI. Key variables were X-ray result (Normal/lung pathology other than PTB/tuberculosis inactive/tuberculosis active /technically inadequate/not done) and Gene Xpert result (Pos/Neg/Indeterminate/not done).

Progress during the period of report:

1. 353 patients were investigated during the year and their X-ray films read by NTI TB Specialist during visits to SVIRHC, Pavagada.
2. Data entry was done for lab records, X-ray readings of reader-1 & reader-2. After the completion of the data entry, the same was verified for its completeness and correctness. Information was obtained on each study participant whether put on ATT.
3. Analysis and report writing was undertaken. Paper was presented at the 68th NATCON Conference in New Delhi. Scientific paper was drafted & submitted for publication.

Results in brief:

Of 384 new smear negative PTB suspects, 164 (42.7%) had abnormal X-ray shadows. Xpert MTB/RIF showed 14 (3.6%, CI: 1.7, 5.5) positive results of which 13 (92.9%) had abnormality on X-ray and one had normal X-ray. None of the MTB/RIF positive patients was HIV reactive or resistant to Rifampicin; 10 (71.4%) were registered for ATT, 1 refused treatment.

3. Evaluation of diagnostic algorithm among registered new Smear Negative PTB patients under RNTCP in Karnataka state**Objective:**

To find out the proportion of patients diagnosed as per the RNTCP algorithm out of the registered new smear negative PTB patients.

Methodology in brief

Study was carried out in four districts namely Chikkabalapur, Tumkur, Uttarakannada and Belgaum from Karnataka state, selected by purposive sampling. In each district, 50 new smear negative patients registered during the period of 90 days prior to field visit by research team were recruited into the study. Pediatric TB suspects (<15 years), those not residing in the jurisdiction of the concerned TU and transfer-out cases were excluded. Data collection regarding the investigations undertaken, smear results, antibiotics prescribed/ consumed with duration, details of X-ray was done from TB register, Treatment card, DMC lab register, X-ray report and X-ray film if available and by patient Interviews.

Progress during the period of report:

1. Field work was undertaken in Uttara Kannada and Tumkur districts.
2. Data entry was completed. The data were verified for correctness and completeness. Analysis and report writing was done and the paper was presented in 68th NATCON conference in New Delhi. Scientific paper prepared and submitted for publication.

Results in Brief:

The algorithm was completed in 14 (8.0%, CI: 4.0, 12.0) out of 176 NSN PTB patients: one out of 154 patients with HIV status non-reactive or unknown and 13 out of 25 HIV reactive patients.

4. Effectiveness of community based observation of treatment for tuberculosis in Bangalore city in 2010-11

Objectives:

1. To compare the treatment outcome and sputum conversion rate of new smear positive (NSP) TB patients registered in Bangalore city from 4th quarter 2010 to 2nd quarter 2011:
 - a) To determine the treatment outcome and sputum smear conversion rate in NSP TB patients on institutional DOT
 - b) To determine the treatment outcome and sputum smear conversion rate in NSP TB patients on community DOT
 - c) To compare the rates between the two groups
2. To determine the proportion of NSP TB patients taking DOT under supervision of different types of community DOT providers during same period.

Methodology in brief:

This was a cohort study where the treatment cards of the patients were reviewed and relevant information was abstracted to data collection form. Further information was obtained for the same patients from the TB register and information on type of DOT provider was recorded from the list of DMC / PHI responsible for treatment of patient. The listed data variables were TB registration number, Age, Sex, sputum conversion at 3months, treatment outcome as per RNTCP guidelines with confounders as HIV, DM, Type of DOT provider (Community / Institutional), etc.

Progress during the period of report:

Data entry was completed. Analysis and report writing was undertaken and the paper was published in Public Health Journal in September 2013 edition.

Results in brief:

Treatment records of 1864 new smear-positive TB patients registered during this period were evaluated. Among those evaluated, 604 (32%) had been administered treatment by community DOT providers and the remainder by institutional DOT providers. The treatment success rate in those undergoing community DOT was 93% (n = 564) and that of those undergoing institutional DOT was 75% (n = 951; RR 1.23, 95%CI 1.19–1.28). The sputum smear conversion rate of patients who underwent community DOT was 92% and that of those who underwent institutional DOT was 71% at the end of 2 months.

5. Challenges in Implementation of Diagnostic Algorithm for Patients having Symptoms Suggestive of Pulmonary TB with Smear Negative report on initial sputum examination

Objectives:

1. To find out the proportions of smear negative symptomatic patients that completed the diagnostic algorithm under RNTCP in Karnataka state.
2. To find out health system and patient related barriers to completion of diagnostic algorithm for smear negative symptomatics.

Methodology in brief:

The study was carried out in 3 districts of Karnataka namely, Mysore, Chikkamagalur and Shimoga, selected by Simple Random Sampling (SRS), having ratio of notified smear positive to smear negative PTB cases < 1:0.7. In each district, 20% of the DMCs were selected using stratified random sampling; the strata were based on location in rural/urban area and availability of X-ray facility within the DMC. In each DMC, a line list of smear negative patients (both the sputum specimen negative on initial examination /one specimen examined and negative) during the month preceding the visit of research team by two months was prepared. Pediatric TB suspects (<15 years) and those not residing in the jurisdiction of the concerned TU were excluded. Interviews were conducted with patients and relevant RNTCP records were reviewed: Lab register, X-ray register, OPD register, pharmacy register. Patients found to have symptoms at the time of home visit by field staff was referred to nearest PHI. In order to understand the challenges and constraints in implementing the algorithm and relevant suggestions, In-depth interviews were conducted with 19 MOs randomly selected in each district.

Progress during the period of report:

Patients who had earlier been found to be symptomatic at the time of interview and were referred to nearest health center were re-interviewed during the period of report to find out the current health status. Field planning & formulation of Interview schedule in this regard were under taken. A total of 53 patients were re-interviewed during field visits to Mysore, Shimoga and Chikkamagalur. In-depth interviews were conducted with 7 M.O's.

Analysis completed and the paper presented at NATCON, New Delhi. Scientific paper prepared and submitted for publication.

Results in Brief:

Algorithm was completed in 5.4% study participants. Four participants were put on Anti-TB treatment - two after completing algorithm and two without.

In-depth interviews revealed that most MOs were unaware of algorithm, trained 5-10 years back, prescribed antibiotics for <10 days and advised X-ray without RE irrespective of number of days antibiotic consumed. Other major reasons for non-completion of algorithm were patients not reporting back to health centres and a proportion switching over to private sector.

6. *Inventory Study to find out 'Under reporting' of TB cases in Tumkur District of Karnataka State***Objective:**

To estimate the level of under reporting of TB cases in Tumkur district

Methodology in brief:

The study was carried out in Tumkur district of Karnataka. The information on private nursing homes/Polyclinics presently functional in the district was obtained from the District TB office and updated with the support of MOTC and IMA. The Medical College faculty and doctors of Private nursing homes/Polyclinics were sensitized on ISTC, operational strategy of RNTCP and purpose and procedures of the present study through meetings and personal visits by NTI officials and DTO. The data on diagnosed TB patients was thus collected from TB register of 6 TUs, Lab register of all 28 DMCs, 8 departments of Medical College and 83 nursing homes/Polyclinics.

The data collection formats used for recording the data on diagnosed TB patient were supplied to each of the private nursing homes/Polyclinics and each clinical department of the medical college. For the purpose of the study, any patient diagnosed to be suffering from TB and/or treated for TB by a Medical Officer was considered as a case. Key variables in respect of each TB patients diagnosed in all the selected sources were name, age (in completed years), sex, complete address, postal pin code, disease category (Pulmonary / Extra Pulmonary), Type of cases (New/Previously treated), date of starting treatment and telephone number. All MOTCs and in-charge PHIs were advised through a circular from DTO to ensure recording of the aforesaid variables in the treatment cards and TB register. The data recording by the participating facilities was undertaken prospectively from 1st January 2012 to 31st December 2012.

Progress during the period of report:

Correction of data base was undertaken for clarification of 3rd quarter DMC data for unmatched cases. The information on new/re-treatment cases for 2nd and 3rd Quarter of 2012 data, for those patients who might have been registered late in TB register of DMC data was updated. Updating of the information on nursing home data & verifying duplicate cases found within 2nd Quarter and 3rd Quarter 2012 data was undertaken by visiting Tumkur DTC.

The scientific paper on the study was presented in TCC meeting on 13.8.13 and submitted for publication. The manuscript was revised in line with comments received from the journal and the revised manuscript re-submitted for publication.

Results in brief:

About 83% of new cases recorded in the private medical college, 47% in nursing homes and 24.5% in RNTCP TB registers were extra-pulmonary. The proportion of re-treatment cases was 5.5%, 9.6% and 19.8% respectively. The proportions who were males and those in productive age group were similar in the three data sources.

About 94% of cases diagnosed in the medical college and 55% in nursing homes were registered for treatment under RNTCP and thus reported by the programme. About 11% of smear positive patients diagnosed in RNTCP were initial defaulters.

B. EPIDEMIOLOGICAL MODELING

- i. Developed a model for estimating incidence of childhood TB, results presented to the RNTCP National Technical Working Group on Paediatric TB.
- ii. Developed a model for estimating TB mortality rates.
- iii. Structure of a transmission model was prepared: work is under progress and when completed will be useful in estimating trends in TB burden.

C. COLLABORATIVE STUDIES:

Multi-centric cohort study of recurrence of tuberculosis among newly diagnosed sputum positive pulmonary tuberculosis patients treated under RNTCP

Objectives:

Primary Objective:

To estimate the recurrence of TB among newly diagnosed sputum positive pulmonary TB patients who have been successfully treated under RNTCP.

Secondary Objective:

1. To distinguish between relapse and re-infection among those who have recurrence of TB
2. To identify risk factors for unfavorable treatment outcomes (failure, default and death), and re-current TB among newly diagnosed sputum positive pulmonary TB patients who have been successfully treated under RNTCP

Progress during the period of report:

Division officials coordinated various aspects of the study including incorporating further modifications, translation of study formats into local language, putting up correspondences etc. Clearance from Institutional ethics committee was obtained. Mandya and Ramanagara districts are selected as NTI study area. The STO and DTO's of both the districts were informed about the study and information was sought regarding the TU's coming under these districts.

1. Treatment outcome of TB patient in a clinic of Bangalore city- a success story

For the work carried out in Subramanya Day Care Centre, support was provided in analysis and report writing regarding treatment outcome of patients treated in the centres during last 10 years.

2. Tobacco smoking: a major risk factor for pulmonary tuberculosis – Evidence from cross-sectional study in central India

Support was provided in analysis and preparing the manuscript for subsidiary analysis of the data from disease prevalence survey in Jabalpur carried out earlier by RMRC Jabalpur.

D. RESEARCH PAPERS PUBLISHED:

1: Abstract of NTI studies:

1. V. K. Chadha,, Sharada M. Anjinappa, UmadeviGowda,, Ramesh Srivastava,, J Ahmed, and Prahlad Kumar; "***Annual Risk of Tuberculous Infection in a rural population of South India and its relationship with prevalence of smear positive pulmonary tuberculosis***": Indian Journal of TB, 2013 vol 60/ 4, 227-232.

Background: We conducted a tuberculin survey to estimate the annual risk of tuberculous infection (ARTI) among children in a sub-division of rural Bangalore district. A TB disease survey was conducted in the same area around the same time and has already been published. DOTS strategy is being implemented in the study area since 2002.

Methods: The tuberculin survey was conducted during 2010-2011 among 3838, 5-9-year-old children attending 147 schools selected by simple random sampling. Children were tuberculin tested with 2TU PPD RT23 with Tween 80 and maximum diameter of induration was measured between 48-96 hours. ARTI was computed from prevalence of infection estimated by mirror-image technique. Prevalence of smear positive pulmonary TB estimated during the disease prevalence survey in 2008-10 was used to find out its relationship with ARTI.

Results: Using the observed mode of tuberculin reaction sizes at 19 mm, among surveyed children, prevalence of infection was estimated at 7.3% (CI: 6.5-8.1); ARTI was computed at 1.05%. Considering the mean age of children, estimated ARTI most closely approximated to the year 2008. Every one per cent ARTI was found to correspond to a prevalence of 103 sputum smear positive patients of PTB, which was similar to the ratio of 106 found in the same study area during 1960s.

Conclusion: There has been no change in the relationship between ARTI and prevalence of smear positive pulmonary TB from the pre-DOTS era and thus in the number of children infected by each adult point prevalent case of smear positive pulmonary TB each year suggesting the need for early case detection and treatment

2. S. K. Tripathy, P. Kumar, K. D. Sagili, D. A. Enarson; "***Effectiveness of community based observation of treatment for tuberculosis in Bangalore city in 2010-11***" published in Public Health Action Journal 2013; 3(3); 230-33 September edition

Setting: The Revised National Tuberculosis Control Programme in an urban setting of Bangalore City, India.

Objectives: To compare treatment outcomes and smear conversion rates among new smear-positive tuberculosis (TB) patients undergoing treatment administered by community directly observed treatment (DOT) providers with those undergoing treatment administered by institutional DOT providers in Bangalore City in 2010–2011.

Method: Cohort study of routine data recorded from treatment cards of TB patients undergoing treatment under the public health services from 1 October 2010 to 30 September 2011.

Result: Treatment records of 1864 new smear-positive TB patients registered during this period were evaluated. Among those evaluated, 604 (32%) had been administered treatment by community DOT providers and the remainder by institutional DOT providers. The treatment success rate in those undergoing community DOT was 93% (n = 564) and that of those undergoing institutional DOT was 75% (n = 951; RR 1.23, 95%CI 1.19–1.28). The sputum smear conversion rate of patients who underwent community DOT was 92% and that of those who underwent institutional DOT was 71% at the end of 2 months.

Conclusion: We conclude that community DOT for treatment supervision of TB patients is more effective than institutional DOT and that it should be reinforced.

3. **V.K. Chadha. My journey with epidemiology of tuberculosis.** Journal of Mahatma Gandhi Institute of Medical Science, March 2014/vol 19/issue 1 pages 44-50.

The article describes the outcome of various studies undertaken by the National Tuberculosis Institute, Bangalore during 1995 and how the results served as vital inputs for implementing TB control activities in the country. The results of studies supported in other countries are also summarized.

E. PUBLICATIONS

(I) Papers Under publication:

1. *Treatment outcome of TB patient in a clinic of Bangalore city- a success story*
2. *Tobacco smoking: a major risk factor for pulmonary tuberculosis – Evidence from cross-sectional study in central India*

(II) Papers submitted for publication:

1. Are smear negative pulmonary tuberculosis patients registered under revised national tuberculosis control program diagnosed as per recommended algorithm
2. Role of chest X-ray screening in optimum utilization of Xpert MTB/RIF for early diagnosis of smear negative Pulmonary Tuberculosis
3. A descriptive study of TB case finding in Private Health Care Facilities in a South Indian District
4. Implementation Efficiency of Diagnostic Algorithm in Smear Negative Pulmonary TB suspects
5. Recovery rate of mycobacterium tuberculosis by Bactec M.G.I.T. 960 liquid culture system in comparison with L.J. solid culture from sputum samples of Pulmonary TB suspects.

Other major activities

1. Wardha prevalence survey data was re-analysed based on the discussion Dr.V.K.Chadha had with MGIMS officials during his visit to Sevagram, Wardha and visit of officials from MGIMS to NTI on 16th Jan 2014. The manuscript was revised under his guidance.
2. Detailed report was sent by Dr. V.K.Chadha on “Comprehensive TB Epidemiological situation assessment in Timor- Leste” to Section Officers of IH and Ministry of External Affairs.
3. Dr. V.K. Chadha worked on “Costing options for diagnostic algorithms of smear negative TB patients”
4. A proposal for Mass Production of PPD received from MGIMS Wardha was reviewed and a letter to DDG (TB) in this regard was sent with concept note for his perusal and consideration.
5. Dr V.K. Chadha provided mentorship for operational research
6. The WHO fellows from Sri Lanka visited the ERD Division on 27.6.13. and interacted with Dr. V.K. Chadha

7. Mr. Sanjay Singh (F.I.) discharged the following duties as In-charge Research Documentation Cell:-
 - a. Web Administration of TB research portal www.tbresearch.ntiindia.org.in and NTI research portal www.ntiresearch.ntiindia.org.in
 - b. Correspondence with all the participating nodal centres.
 - c. Provided access of the full text of documents as and when received request from anyone.
 - d. Uploaded articles for the year 2013 published in Public Health Action, International Journal of TB & Lung Disease, Indian Journal of TB and articles received from Institute of Bio-informatics, Bangalore.
 - e. Created a list for Meta data for 400 articles published in NTI Bulletin, from the year 1963 to 2000 as these bulletins are not in electronic form. These articles will be digitized & to be uploaded.
 - f. Assisted Director for preparing a chapter on RNTCP for J.P Brothers Publication.
 - g. Digitization and uploading of articles for the year 2013 published in International Journal of TB & Lung Disease, Indian Journal of TB and NTI Bulletin.
 - h. About 400 articles published in NTI Bulletin, from the year 1963 to 2000 along with Meta Data was given to Informatics Limited, Bangalore for Digitization as per the work order.
 - i. He prepared a concept note on the NACO Collaborative project proposal "An Assessment of Implementation of Airborne Infection Control (AIC) Measures in HIV Care Settings of Karnataka State".
8. Presentations were prepared by Dr. V K Chadha on Data Management and analysis.
9. Dr. V.K. Chadha chaired the meetings regarding MACP of NTI officials.
10. 'Contribution of Epidemiology division in TB control programmes' was prepared by Mr. Lakshminarayana and Jameel Ahmed for NTI website.
11. 'Field experiences encountered during Disease Prevalence Survey' by Mr. Lakshminarayana, Mr. Sanjay Singh & Mrs. Uma Devi was submitted for its publication in NTI Bulletin.

Research Documentation Cell

Access to all the published TB research articles in India was always a big constrain for Indian researchers as there are numerous publications and the end users must subscribe each publication to get access to these research articles. Keeping this in mind, the National Tuberculosis Institute (NTI), Bangalore under the directives of DDG-TB, Central TB Division established a Research Documentation Cell at NTI during the month of November, 2011. The prime objective of the Cell is to promote and disseminate the TB research work carried out in India at a single platform and also to provide access to researchers, students, and programme & policy managers. After a great hardship and putting best efforts the Cell has developed a National Research Database of the published TB research in India. The database is operational and hosted online as National Research Documentation Portal- <http://tbresearch.ntiindia.org.in>

As on September, 2014 the database consists of 1651 published TB research articles from the year 1958 to 2014 by the following premier Indian research institutions and organisations:

1. National Tuberculosis Institute (NTI), Bangalore
2. National Institute for Research in Tuberculosis (NIRT), Chennai.
3. National Institute of Tuberculosis and Respiratory Diseases (LRS), New Delhi.
4. National Operations Research Committee, Central TB Division, Govt. of India
5. National Task Force, Zonal Task Force & State Task Force of Medical Colleges
6. Tuberculosis Association of India (TAI)
7. New Delhi TB Centre (NDTBC), New Delhi
8. State Tuberculosis Centres
9. Mahatma Gandhi Institute of Medical Sciences (MGIMS), Wardha
10. Institute of Bioinformatics, Bangalore.

4. MONITORING AND EVALUATION

The Division has been playing pivotal role as a service providing section to the various research studies undertaken by NTI since its inception (1959). It has provided statistical needs of all the research activities i.e. from the Planning stage of studies or surveys, Protocol development, Designing study schedules/forms, Sample size estimation, Collection and validation of data, Collation, Analysis of data, Generating tables and results and Interpretation of the results of various research studies. Further it shoulders the responsibility of documenting and archiving the various research protocols approved and studies conducted in the Institute. Statistical analysis was being carried out using statistical packages viz; Epi-info, SPSS etc.

The Division has experienced subordinate level manpower to maintain the standards of the statistical support for the research activities supervised by officers belonging to Indian Statistical Service (ISS) cadre.

Monitoring

Perusing of NTP performance reports received from the Library for the period 1990 to 2004 and summarized these reports w.r.t case finding and treatment activity. A detail report was submitted for all the published NTP reports for the period 1990-2004 received from the NTI Library for district wise and year wise as required by CTD for estimation of TB mortality in the country. However, as per instructions given by the Director data entry work of NTP reports for the period 1999-2004 was compiled and completed along with the HRD staff. The same was copied to CD and sent to the Director for onward transmission to CTD as required by CTD for the estimation of TB mortality in the country.

Research

RP/236 - "Effectiveness of Community based observations of treatment for tuberculosis in Bangalore city in 2010-2011"

Data entry work was completed for all TB Units in BBMP area and soft copy of the same was submitted to concern Research Investigator for further analysis.

A. Stock Verification

1. Verified all the items available room wise in the M & E Division and recorded these items in the Stock register for the Stock verification of M & E Division for the period 2012-2013.
2. M&E staff has sincerely assisted & cooperated for the Stock verification of M & E Division for the period 2012-2013 carried out by Stock verification Officers & Co.
3. The M & E officials carried out the Stock verification of AMRU and Laboratory Division for the period 2012-2013 and the detailed stock verification report was submitted to Stores section as well as concerned Units/Divisions for further n.a.

5. COMMUNICATION AND SOCIOLOGY

Scientific Gallery

As part of the ACSM activity, the institute has a scientific gallery which has rich repository of information on TB and its control. The visual display at the gallery leaves an indelible impression in the minds of the visitors on different aspects of Tuberculosis and its control, the evolution of TB control activities, and also on the role played by the Institute in the quest to control TB.

The ACSM materials include display boards, photographs of luminaries in the field of TB, milestones in the development of TB Control Programming the salient features of the National TB Control Programme. In addition, projection and information kiosk facilities have been installed for the benefit of trainees and visitors to the Institute who are on an education tour on tuberculosis. The projection materials are being updated periodically in tune with current policies of TB control.

The target group for the scientific gallery comprises of both undergraduate and graduate medical students, para-medical students and also those pursuing life sciences.

The Institute also provides one-day sensitization on TB Control Programme to medical (including Ayurvedic, Homoeopathy & Unani), para-medicals, under graduate and post graduate students pursuing life sciences and Nursing courses. The scientific gallery had a total 2013 students in 47 batches from 34 educational institutions during the year under report. The details of the visits are furnished below:

Under Advocacy Communication and Social Mobilization, we at NTI provided one day orientation/sensitization training for students of the life sciences of various institutes.

1. Total no. of students – 2013, Total no.of batches - 47, Total no. of institutes- 34
2. **Training:** Sri. Govindanarayananaswamy, X-Ray Technician, has successfully completed one day training on revised Website/Ticket module for AMC of NTI at NTI during the year.
3. **Research study:** Translation (English to Kannada) of study protocol, Work instructions, Consent form & Patient interview schedules for the Multi-centric cohort study on relapse was cried out during the year.
4. About 700 Pre-university & 200 Degree students were sensitized about TB Disease & program during the year.

6. ADMINISTRATION DIVISION

The Administration Division of NTI caters to all the administrative requirements of the institute. The five units under this Division are Establishment, Accounts, Hostel, Stores and Transport Units. The major activities of the units for the financial year 2013-14 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 VI 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 staff position as on 31-03-2014 is as under

Sl. No.	Category	Sanctioned	In position	Vacant
1.	Group 'A'	15	09	06
2.	Group 'B'			
	<i>Gazetted</i>	03	01	02
	<i>Non-gazetted</i>	29	24	05
3.	Group 'C'	98	93	05
Total		145	127	18

Recruitments

Sl. No	Name	Designation	Date
1.	Smt. Harmeet Kaur Saini	Statistical Assistant	27-12-2013
2.	Sri. Arjun Kumar Gupata	Statistical Assistant	30-12-2013

Promotions

Sl. No	Name	Designation	Date
1.	Nil	-	-

Retirements

Sl. No	Name	Designation	Date
Superannuation			
1.	Dr. B. Mahadev,	Sr. CMO (SAG)	30-04-2013
Voluntary Retirement			
1.	Sri. M. Anand	Statistical Officer	31-01-2014

Resignation from service

Sl. No	Name	Designation	Date
1.	Nil		

Transfers from NTI

Sl. No	Name	Designation	Date
1.	Dr. Preetish S. Vaidyanathan	CMO (NFSG)	31-12-2013

Transferred to NTI

Sl. No	Name	Designation	Date
1.	Dr. Uma Shankar	C.M.O (NFSG)	19-02-2014

Training of officers / officials in administrative matters

Sl. No.	Details of Training	Date	Venue	Name of the officer
1	Nil			

Events observed / celebrated

Republic Day, Independence Day and Hindi Day were observed.

Civil & Electrical works and Maintenance

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

A budget of Rs. 1, 00, 00,000/- under the head of account PLAN–Capital- Major Works and Rs. 5,00,000/- under Machinery & Equipment was allocated to the Institute during the financial year 2013-14 for carrying out maintenance and new works. An amount of Rs. 99,78,955/- was spent for Major Work.

The following Civil, Electrical and Horticultural works were executed during the period under report in addition to the routine repairs & Maintenance works.

Civil & Horticultural works

1. Miscellaneous works like providing size stone masonry retaining wall near stores Unit, Roof treatment work to arrest water seepage in the Dining, Wasing Room, Kitchen and Terrace of the Krishna Nivas, Providing after proofing treatment along the Northern strip of Avalon Building.
2. Reconstruction of compound wall with repair of damaged drainage system at NTI staff quarters.
3. Providing additional sewer line from Animal Lab Unit & Krishna Nivas to Residential Campus and Storm water drain behind stores.
4. Conversion of existing Reception room into Guest Room at Cauvery Nivas.
5. Horticulture work at Animal Model Research Unit.
6. Horticulture and Landscaping work at the surroundings of Stores Unit.

Electrical works

1. Running and Maintenance of 125 KVA DG Set and 1 No. Passenger lift.
2. Providing One time Charges for laying of OFC cable for ILL by BSNL BGTD, Bangalore.
3. Replacement of the existing fountain set and providing electrical points in the garden area around the campus.

Transport Unit

The Institute had fleet of 11 vehicles and the unit is responsible for the upkeep of the vehicles including in-house repair of vehicles, if feasible. The unit also provides vehicles for various activities undertaken by the Institute. The unit also maintains all documents pertaining to registration, insurance and condemnation of vehicles. Two vehicles were disposed after condemnation. Now, the Institute is having a fleet of 9 vehicles.

Accounts

The unit caters to the financial matters of the Institute. This includes:

- a. Preparation of annual budget and performance budget proposals.
- b. Drawing and disbursement of salaries, traveling allowances, medical reimbursement & other claims and advances related to the staff & officers
- c. Calculation and disbursement of MACP arrears, Pay re-fixation, and payment of arrears on account of grant of PCA from retrospective effect.
- d. Processing of payments pertaining to procurements made through stores and annual maintenance contracts services.

The details of Plan & Non-plan budget allocation and expenditure incurred for the financial years 2010-11, 2011-12 & 2012-13 are furnished below.

	PLAN	(Rs. in lakhs)
Year	Budget allocated (Rs.)	Expenditure (Rs.)
2011-2012	205.00	174.12
2012-2013	240.00	233.67
2013-2014	265.00	207.43

	NON PLAN	(Rs. in Lakhs
Year	Budget allocated (Rs.)	Expenditure (Rs.)
2011-2012	686.00	665.40
2012-2013	705.00	705.86
2013-2014	806.50	805.57

The revenue generated by the Institute for the year 2013-14 through various sources was credited to the consolidated fund of Government of India as given in the table below.

REVENUE GENERATED

Year	Amount (Rs.)
2013-2014	17,51,417-00

Stores

Stores cater to the logistic needs of various sections 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 sections and their compilation, calling for quotations/ tenders, arrangements for opening the tenders, preparation of comparative statements and submission of the same to the Purchase Committee for its recommendations for further necessary action. The other functions of the section include:

- i. Maintenance of stores /stock ledger.
- ii. Arrangement for Annual Maintenance of equipments held by different sections.
- iii. Arrangement for Annual Stock verification
- iv. Arrangement for condemnation and disposal of unserviceable items as per laid down procedure.

Hostel

The hostel of the institute caters to the accommodation needs of medical & paramedical trainees attending various training programmes and also officials visiting from head quarters and other Institutions/Offices. The Institute has two hostel blocks viz., Krishna Nivas and Cauvery Nivas. Krishna Nivas block has 27 rooms and Cauvery Nivas has 20 rooms. The Mess attached to the Hostel provides hygienic boarding facility.

7. PARTICIPATION IN CONFERENCES, WORKSHOPS, TRAINING PROGRAMMES, MEETINGS ETC.

The 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:

a. Conferences: Participation and paper presented

SI No	Particulars	Date	Participants	Paper / poster presented
1	5 th Global laboratory initiative partners meeting" at Annecy France.	15 th -18 th April 2013	Dr Prahlad Kumar, Director	<ol style="list-style-type: none"> 1. Held meeting with Dr Mario, Head of Stop TB Partnership HQ Geneva along with Dr Sachdeva and Dr Ranjani Ramachandran to discuss various issues viz., posting of Medical Officer to RNTCP India, strengthening technical support to RNTCP by providing more human resource, early initiation of DRS India, rolling out of new diagnostic tools & procurement, supply of anti-TB drugs and rolling out of PMDT, etc. 2. Meeting with Dr Khurshid Alam Hyder, Regional TB Advisor, WHO, New Delhi, regarding renewal of the status of NTI as WHO collaborating centre and strengthening collaboration between NTI and WHO in terms of HRD, research and social mobilization. 3. Meeting with Dr Sahu and Dr Paramasivan, HOD, FIND, Geneva, to discuss rolling out of newer diagnostic tools and PMDT India. 4. Meeting with Dr Gilpin regarding his observational visit to NTI lab and providing technical support by GLC for strengthening networking of labs in India.

SI No	Particulars	Date	Participants	Paper / poster presented
2	"Comprehensive TB Epidemiological situation assessment	21 st Oct-1 st Nov 2013	Dr. VK Chadha Public Health Consultant	As Consultant for WHO he undertook "Comprehensive TB Epidemiological situation assessment" in Timor- Leste
3	NAPCON -2013 at Chennai.	2013	Dr S K Tripathi TB Specialist	Participated and presented paper titled "Does sputum microscopy at end of intensive phase for monitoring treatment of TB predict outcome
4	68th NATCON conference at New Delhi	23 rd to 25 th Feb. 2014	Dr Prahlad Kumar, Director	1. Participated in the inaugural function of NATCON in Rashtrapathi Bhavan". 2. Chaired scientific session in the NATCON held at NITRD (LRS Inst.), where presentation on RNTCP was made by DDG and ADDG. 3. Made presentation on "Indian standard of TB care".
5		23 rd to 26 th Feb. 2014	Dr. VK Chadha Public Health Consultant	a. Delivered a guest lecture on "TB Impact measurement" b. Presented the scientific paper titled "Evaluation of diagnostic algorithm among new Smear Negative PTB patients registered under RNTCP".
6			Dr S K Tripathi TB Specialist	1. Presented poster titled "Community D.O.T. for HIV associated new smear positive TB patients in Bangalore city: a retrospective study" 2. Evaluation of RNTCP Diagnostic Algorithm for persons having Symptoms Suggestive of Pulmonary TB and Smear Negative on initial sputum examination
7	34 th Andhra Pradesh TB and Chest Diseases Conference at KIMS Medical College, Amalapuram, AP	3 rd & 4 th January 2014	Dr Prahlad Kumar, Director	Delivered Dr P.V.Benjamin Memorial Oration titled "Challenges in management of drug resistance TB in India".

b. AWARD

Awardee	Title of the Award	Date & Place	Organizer
Dr Prahlad Kumar, Director	Attended the 19 th NESCON 2013 at Hotel Retreat, Mumbai and delivered Prof Dr K.C. Mohanty Oration on the topic "Revolution in the field of diagnosis of drug resistant tuberculosis".	5 th May 2013, Mumbai, Maharashtra	Prof. Dr K.C. Mohanty oration award by the organizing committee
	"Dr P.V. Benjamin Memorial Award" in the form of a certificate and gold medal	3 & 4 Jan 2014 KIMS Medical College, Amalapuram, AP	Vice Chancellor of Andhra Pradesh Medical University.
Dr. VK Chadha Public Health Consultant	Receive PRJ Gangadhara Award for Life time contribution to TB Control at, to TB Control & delivered an Oration on "My journey with Epidemiology of TB"	12 th -14 th Sept 2013	Mahatma Gandhi Institute of Medical Sciences Sevagram, Wardha

C. OtherActivities

- a. Mr. Padmesh&MrsUmadevi attended RNTCP Modular Training at NTI on 6th to 18th May 2013.
- b. DrPrahlad Kumar, Directorattended Viva Voce examination, as an examiner for awardingthe degree of Doctor of Philosophy (Ph.D) to Mr. ShabirAhmad Mir of PGIMER, Chandigarh on 8th July 2013.
- c. Dr. V K Chadha, Dr S K Tripathi&Mrs.Praseeja attended the NIKSHAY Training at NTI from 24th - 25th July 2013
- d. DrPrahlad Kumar, Directoras nominated member of Selection Committee for recruitment of Scientist 'C' (Medical) by DG, ICMR, attended the selection committee meeting at NIRT, Chennai on 3rd Sep 2013.
- e. All ERD & M & E officials attended NIKSHAY Training at NTI on 27th Sept 2013
- f. DrPrahlad Kumar, Directormade a presentation on RNTCP was made at the GSL Medical College, Rajahmundry, AP, followed by Question & Answer session to sensitize and motivate medical college teachers and students for their greater contribution to RNTCP on 3rd Jan 2014.
- g. DrPrahlad Kumar, Directorparticipated as Chief Guest in the Institute Day celebration of Sri Venkateshwara Institute of Medical Sciences (SVIMS), Tirupati and addressed the participants on 26th Feb 2014.
- h. DrPrahlad Kumar, Director Participated in the selection committee meeting, as Member for the selection of the post of Scientist B (Medical) at NIRT, Chennai on 5th March 2014.

d. Participation in the ISS Training Programmes & Other Training Programmes

SI No	Participants	Date	Details of training
1	Smt. N.Sangeetha, Chief Statistical Officer (NFSG)	15 th to 19 th July 2013.	"Application of Remote Sensing & GIS for Natural Resource Management" at IIRS, Dehradun
2	Mr. George Sebastian, Jr. Bacteriologist	8 th to 12 th April 2013	Training course on tuberculosis laboratory Management at Mumbai
3	MrsReena K I/c NRL, Consultant Microbiologist	4 th December 2013	Visited PD Hinduja Lab, Mumbai for certification of II line DST
4	Dr. Selvakumar Consultant Microbiologist	17 th to 19 th Feb 2014	NRL Mentoring visit to NRL RMRC Bhubhaneshwar
5	MrsReena K I/c NRL, Consultant Microbiologist	19 th to 21 st Feb 2014	NRL Mentoring visit to NRL Bhopal Memorial College and Research centre

e. Workshops

At NTI

Sl. No.	Particulars	Date	Faculty
1	Facilitated the workshop on scientific report writing and also delivered a lecture "How to write Introduction and Objectives for a research paper"	24 th to 29 th June 2013.	Dr. VK Chadha Public Health Consultant
2	a. Chaired the CTD-WHO-NTI workshop held at NTI from for drafting standard operating procedure (SOP) regarding NDRS to be carried out by NTI. Also held meeting with DrRanjani Ramachandran to discuss the procurement of MGIT liquid culture machine and logistics for NDRS. b. Attended concluding session of aforesaid CTD-WHO-NTI workshop	5 th to 7 th March 2014	Dr. Prahlad Kumar, Director

Outside NTI

Sl. No.	Particulars	Date	Resource person
1	Attended orientation programme as resource person in "orientation programme on RNTCP for Civil surgeons and District TB Officers of Bihar"	16 th July 2013	Dr. S.K.Tripathy TB Specialist
2	Participated in the ZTF workshop, west zone, Chaired scientific sessions and facilitated group discussions on both the days and addressed the participants on the concluding day.	22 nd & 23 rd August 2013	Dr. Prahlad Kumar, Director
3	a. National OR dissemination workshop organized by CTD and The Union. Made presentation on operations research carried out by NTI and research documentation of all the published research done at NTI; b. Chaired scientific sessions and facilitated group discussion on both the days and addressed the gathering. c. Discussed during the workshop, with Shri Anshu Prakashji, Joint secretary, DDG (TB), Dr Sachdeva and Dr Kulshrestha, CTD about the research being carried out at NTI, Bangalore.	25 th & 26 th August 2013	Dr. Prahlad Kumar, Director

SI. No.	Particulars	Date	Resource person
4	<p>Attended the RNTCP South Zone II – ZTF Operational Research workshop for medical college faculties. He facilitated group work and plenary sessions also presented talks on the following:</p> <ol style="list-style-type: none"> 1. How to frame good research questions 2. How to write a protocol 3. Data management and analysis and facilitated development of three OR protocols at Thiruvananthapuram 	26 th – 28 th August 2013	Dr. VK Chadha Public Health Consultant
5	RNTCP TB X pert Project-Sensitization workshop at Chennai, Tamilnadu.	10 th & 11 th September 2013	Mrs Reena K I/c NRL, Consultant Microbiologist
6	Attended ZTF East zone workshop at Raipur, Chhattisgarh, addressed the participants in the inaugural session, which was attended by Vice Chancellor of Medical University, MD, NRHM, other health authorities of Govt. of Chhattisgarh and NTF & ZTF office bearers. Made presentation on “updates of RNTCP” on behalf of CTD, chaired scientific sessions, guided group discussion and participated in the concluding session, which was attended by the Hon.bleGovernor of Chhattisgarh.	18 th & 19 th Oct 2013	Dr. Prahlad Kumar, Director
7	Attended CME in Fortis Hospital, Bengaluru and delivered a talk on MDR TB.	20 th Feb 2014	Dr. Ravichandra C, CMO-NFSG
8	Attended CME in Rajarajeshwari Medical College, Mysore Road, Bengaluru	26 th March 2014	

f. Meetings

At NTI

Sl. No.	Meetings/CME	Date	Faculty
1	Participated in a meeting on Mathematical modeling with faculty of CAM-TIFR, GOI, Bangalore.	10 th April 2013	Dr. VK Chadha Public Health Consultant
2	Participated in the meeting to formulate / revise the guidelines for STDCs	15 th & 16 th April 2013	Dr. VK Chadha Public Health Consultant
3	Meeting of sub group for ORs related to TB burden estimation	12 th & 13 th May 2012	Dr Prahlad Kumar, Director Dr V K Chadha Public Health Consultant
4	Meeting to discuss regarding the development of model DOTS. 12 participants attended.	28 th & 29 th May 2013	Dr Prahlad Kumar, Director Members from NTI, CDC-Atlanta and Government of Karnataka
5	RNTCP National Review meeting of STOs	9 th & 10 th June 2012	Dr Prahlad Kumar, Director Dr V K Chadha Public Health Consultant, Dr. Preetish S. Vaidyanathan, CMO (NFSG)
6	RNTCP Regional Review meeting on Programmatic Management of Drug Resistant TB, South and West states	11 th - 12 th June 2012	Dr Prahlad Kumar, Director Dr. S. Anand, Consultant Microbiologist
7	Meeting to develop Mathematical models with CTD officials and RNTCP consultants. Presented a structure for Transmission Model developed.	3 rd July 2013	Dr. VK Chadha Public Health Consultant Members from NTI, CTD and CHAI Foundation
8	Meeting of sub-group for ORs related to TB burden estimation	18 th - 19 th July 2012	Dr Prahlad Kumar, Director Dr V K Chadha Public Health Consultant

Sl. No.	Meetings/CME	Date	Faculty
9	Chaired the meeting of 'development of case-based electronic monitoring system' at NTI, officials from CTD and experts from IRL Hyderabad.	20 th July 2012	Dr Prahlad Kumar, Director Dr. Preetish S. Vaidyanathan, CMO-NFSG Mr. Jitendra, Computer
10	Review Meeting of Regional Directors The meeting was chaired by Dr. Jagdish Prasad, DGHS	22 nd - 23 rd Oct 2012	Dr Prahlad Kumar, Director
11	Participated in the meeting of the National Drug Resistance Survey oversight group to discuss Operational Modalities of implementing the Survey	23 rd – 24 th Jan 2014	Dr. Prahlad Kumar, Director Dr V K Chadha, Public Health Consultant
12	Meeting with DrMayankGhedia, CTD consultant regarding monitoring of 2 newly created NRLs and the role to be played by NRL NTI.	6 th March 2014	Dr Prahlad Kumar, Director

Outside NTI

Sl. No	Meetings	Date	Resource person
1.	Attended meeting of the "TB-DR survey National Oversight Group" held at Nirman Bhavan, DteGHS, New Delhi	5 th April 2013	Dr Prahlad Kumar, Director Dr. VK Chadha Public Health Consultant
2.	Meeting with DrNeerajKulshrestha along with WHO Officers and other RNTCP consultants to discuss the CDC support to NTI for various activities viz., DRS, HRD, capacity building of OR, development of modal DOTS in the district of Kolar, Karnataka, etc		Dr Prahlad Kumar, Director
3.	National oversight group meeting at New Delhi.	5 th to 9 th April 2013	Dr. S. Anand Consultant Microbiologist
4.	Meeting for National DRS survey at New Delhi	9 th April 2013	Dr. S. Anand Consultant Microbiologist
5.	Discussion with DDG (TB), DrSachdeva, Joint Secretary, Sri Anshuprakashji, Mr K Srinidhi, Section Officer (IH), Min of H&FW, New Delhi, Deputy Director, Protocol and Officers in the Office of External Affairs for getting necessary papers cleared to attend the " 5th Global laboratory initiative partners meeting " meeting at Annecy, France	12 th April 2013	Dr Prahlad Kumar, Director
6.	Discussions held with STO and Microbiologist of Sikkim, it was suggested that a revised layout of the lab to be prepared as per the guidelines issued by CTD and the same to be submitted to CTD with a copy of NRL, NTI for further necessary action. Technical advice on some of the issues pertaining to RNTCP was discussed and necessary suggestions were provided	18 th May 2013	Dr Prahlad Kumar, Director

Sl. No	Meetings	Date	Resource person
7.	Discussions with the Principal, Medical College, Siliguri, RNTCP Consultant and Microbiologist, about various issues pertaining to culture and DST lab. It was suggested to expedite the work in the lab, since this lab is to play an important role in effective management of PMDT in the state of West Bengal and fullest technical support was assured from NRL, NTI for development of their lab. Director also assured that once the equipments are installed, team from NRL, NTI would visit to support the lab for making the lab operational.	20 th May 2013	Dr Prahlad Kumar, Director
8.	Participated in partners consultative meeting Organized by Abt associates and SHOPS TB initiative	23 rd May 2013	Dr. VK Chadha Public Health Consultant
9.	On the request of STO and STDC Director, Kolkata, a visit was made to State TB Cell, SwasthyaBhavan, Kolkata. Discussions were held on various components of RNTCP and a visit to IRL Kolkata was made, where the renovation work was taken place.	24 th May 2013	Dr Prahlad Kumar, Director
10.	Visited State TB Cell and STDC, Karnataka, along with CDC Atlanta team and discussions were held with the RNTCP officials of the State of Karnataka	29 th May 2013	Dr. S. Anand Consultant Microbiologist
11.	Interaction with DrSachdeva, Addl.DDG, Dr Malik Parmar and DrMayankGhedia, Consultants, on various components of RNTCP and modalities for strengthening the technical support from NTI to RNTCP was discussed at NirmanBhavan, New Delhi.	30 th May 2013	Dr Prahlad Kumar, Director Dr. S. Anand Consultant Microbiologist
12.	Meeting with DrRanjani Ramachandran, WHO Lab Focal Point to discuss the National DRS to be carried out by NTI, Bangalore at NirmanBhavan, New Delhi.	31 st May 2013	Dr Prahlad Kumar, Director
13.	Meeting with STO, Rajasthan and the RNTCP consultants to review the status of PMDT and lab support for PMDT by IRL, Ajmer and SMS Medical College, Jaipur. Discussions were also held regarding liquid culture facilities for follow-up samples.	1 st June 2013	Dr Prahlad Kumar, Director

Sl. No	Meetings	Date	Resource person
14.	Meeting with Prof. M.L. Gupta, HOD of TB & Chest Diseases Medical College, Jaipur & I/c DRS TB site.	2 nd June 2013	Dr Prahlad Kumar, Director
15.	Presentation made to the Director General of Health Services on DRS protocol in DG's Office.	5 th June 2013	Dr Prahlad Kumar, Director
16.	Meeting with Director, STDC, Andhra Pradesh (AP); IEC Officer; and Headquarters Consultant, in the State TB Cell of Hyderabad regarding sensitization on Nation-wide DR survey	17 th June 2013	Dr Prahlad Kumar, Director
17.	Discussion with DTO & RNTCP Consultants regarding sensitization on Nation-wide DR survey at DTC, Bijapur	20 th June 2013	Dr. S. Anand Consultant Microbiologist
18.	Meeting with Prof. Sadhana Sharma, HOD of Bio-chemistry and DrKullar, Prof. Emiratus, PGIMER, Chandigarh, to strengthen cooperation related to animal research, vaccine development and drug delivery system, involving NTI animal lab	8 th July 2013	Dr Prahlad Kumar, Director
19.	Meeting with DrKaushal, Consultant, Himachal Pradesh (HP) and STO, HP, in the State TB Cell, Shimla to discuss about conducting DR survey by NTI, Bangalore and collection & transportation of the samples from identified TUs for DR survey in the state of HP	9 th July 2013	Dr Prahlad Kumar, Director
20.	Interaction with the DTC, DrChawla at DRS TB site at Amrithsar	10 th July 2013	Dr Prahlad Kumar, Director
21.	Meeting with Director, STDC, DrJaikishanLPA and solid culture facilities at STDC, Patiala	11 th July 2013	Dr Prahlad Kumar, Director
22.	Discussion with DTO & STO Karnal, Microbiologist of IRL and Headquarter Consultants related to IRL lab facilities at STDC, Karnal, Haryana.	12 th July 2013	Dr Prahlad Kumar, Director
23.	Meeting with, STO, Chandigarh on Culture and DST lab functioning at PGIMER Chandigarh at State TB Cell Chandigarh.	13 th July 2013	Dr Prahlad Kumar, Director
24.	RNTCP National Technical Working Group on Paediatric TB" & presented preliminary estimates of "Incidence of TB in children" in the meeting based on epidemiological modeling at New Delhi.	15 th July 2013	Dr. VK Chadha Public Health Consultant
25.	Discussion with Vice-Chancellor, Director and Dean of the Institute on C&DST lab, effective management of PMDT and operations research at RGIMS, Rohthak	16 th July 2013	Dr Prahlad Kumar, Director

Sl. No	Meetings	Date	Resource person
26.	Meeting with ShriAnshuPrakashji, Joint Secretary, Min. of Health & FW, New Delhi, regarding various activities being carried out in the Institute & status of expenditure and lab activities for detection of MDR & XDR support being provided by NRL, NTI to various states at New Delhi.	20 th August 2013	Dr Prahlad Kumar, Director
27.	Meeting with DrRadhaMunje, Chairman, ZTF West Zone, about finalization of Agenda for the forthcoming ZTF West zone workshop and also progress of involvement of medical colleges in RNTCP in the west zone.	21 st August 2013	Dr Prahlad Kumar, Director
28.	Meeting with DrMaskita, Chairman, State Task Force as well as STO, Goa, about arrangements for the forthcoming ZTF workshop to be held at Goa.	21 st August 2013	Dr Prahlad Kumar, Director
29.	Meeting with Principal Secretary, Health, Government of Gujarat about status of RNTCP in their state and the role of medical colleges to support RNTCP	22 nd August 2013	DrPrahlad Kumar, Director
30.	Meeting with DrJaikishan, Director, STDC, about rolling out of PMDT support provided by STDC IRL Patiala.	25 th Aug 2013	Dr Prahlad Kumar, Director
31.	Meeting with Dr Anil Purty, Chairman, RNTCP, ZTF South II and DrBehera, session.	4 th Sep 2013	Dr Prahlad Kumar, Director
32.	Chairman, National Task Force for involvement of medical colleges under RNTCP, at Puducherry to finalise the Agenda of the ZTF meeting scheduled on 5 th & 6 th Sept. 2013.	5 th & 6 th Sep 2013	Dr Prahlad Kumar, Director
33.	Attended ZTF South II at Puducherry, chaired scientific sessions, guided group discussions on both the days and addressed the gathering in the concluding		
34.	Attended "First meeting of the committee to examine the issue of the type of drug regimen to be used under RNTCP" at Nirman Bhavan, New Delhi.	12 th Sep 2013	Dr Prahlad Kumar, Director
35.	RNTCP review meeting of STOs and Consultants at Kolkata. Participated in group discussions, chaired scientific sessions and addressed the gathering on all three days	16 th – 18 th Sep 2013	Dr Prahlad Kumar, Director
36.	meeting of National Research Committee at National Institute of TB & Respiratory Diseases (NITRD) (Former LRS Institute), New Delh and participated and provided suggestions on the protocols discussed	30 th Sep 2013	Dr Prahlad Kumar, Director

Sl. No	Meetings	Date	Resource person
37.	Meeting with ShriAnshuPrakashji, Joint Secretary (JS), Min. of H&FW, New Delhi, regarding administrative and technical issues of NTI and functioning of the Institute.	17 th Oct 2013	Dr Prahlad Kumar, Director
38.	a. Attended First meeting of sub-committee for diagnostic algorithm under RNTCP" in NirmanBhavan, New Delhi and actively participated in the discussion. b. Meeting with DrSachdeva, Addl. DDG; DrSreenivasan, Dr Malik Parmar, WHO National Programme Officers; DrRanjani Ramachandran, WHO Lab Focal Point; and DrMayankGhedia, DrAnand, WHO Consultants, CTD to discuss the budgetary issues of DR survey protocol.	11 th Dec 2013	Dr Prahlad Kumar, Director
39.	Meeting with DrRanjani Ramachandran, DrMayankGhedia and DrSachdeva about strengthening EQA and PMDT lab component in the 9 states supervised by NTI.	12 th Dec 2013	Dr Prahlad Kumar, Director
40.	Attended meeting of TB-DR survey National oversight group, chaired by DDG (TB), held in NirmanBhavan, New Delhi. Detailed deliberations were held about modalities to be followed to implement DR survey protocol	2 nd Jan 2014	Dr Prahlad Kumar, Director
41.	Attended DTO review meeting of Maharashtra held in Mumbai, which was chaired by the Union Secretary, Health and attended by Principal Secretary, Govt. of Mah.; Addl. Municipal Commissioner of Mumbai; Sri Anshu Prakash, Joint Secretary, GOI; Sr. TB Experts and DTOs of Mumbai	16 th Jan 2014	Dr Prahlad Kumar, Director
42.	Attended the PMDT review meeting of west zone states, chaired by DGHS, GOI and attended by DDG (TB), ADDG, HQ Consultants, STOs and STDC Directors, Microbiologists and Consultants of State of Mah., MP, Raj, Gujarat and Goa.	17 th Jan 2014	Dr Prahlad Kumar, Director Mrs Reena K I/c Consultant Microbiologist

Sl. No	Meetings	Date	Resource person
43.	<p>a. Meeting with DrSreenivasan, Dr Malik Parmer, NPO, WHO; DrKiranRade, CTD, regarding SOPs of DRS to be carried out by NTI and also priority areas identified for NTI to render appropriate support to CTD for effective management of RNTCP and PMDT.</p> <p>b. Chaired the meeting of WHO-CTD and NTI officials to discuss detailed action plan for conducting DR survey by NTI.</p>	23 rd Jan 2014	Dr Prahlad Kumar, Director
44.	Sensitization was done on DR survey and the role to be played by the DTO, MOTC, STLS and LTs in DR survey at Indore in the state of Maharashtra	24 th Jan 2014	Mr. George Sebastian, Jr. Bacteriologist
45.	Attended research committee meeting held at Hotel Surya, New Delhi. Addressed the gathering in the inaugural session, chaired scientific session, guided group discussion and addressed in the concluding session.	5 th Feb 2014	Dr Prahlad Kumar, Director
46.	Participated meetings in organised by the Union at New Delhi: To formulate a plan & modalities to improve Operational Research capacity under RNTCP	5 th Feb 2014	Dr V K Chadha Public Health Consultant
47.	Participated in a meeting held at ICMR Head Quarters, New Delhi regarding Treatment regimen for HIV Co-infected TB patients	6 th Feb 2014	Dr V K Chadha Public Health Consultant
48.	<p>Participated in a meeting with CTD and WHO officials at New Delhi to present the following OR studies and Costing of 5 different case finding strategies in PTB diagnosis</p> <p>a. Role of Chest X-ray in early detection of smear negative pulmonary Tuberculosis by using Gene X-pert.</p> <p>b. Evaluation of diagnostic algorithm among registered new smear negative PTB patients under RNTCP in Karnataka state.</p> <p>c. Challenges in implementation of diagnostic algorithm for patients having symptoms suggestive of pulmonary TB smear negative report in initial sputum examination.</p>	6 th Feb 2014	Dr V K Chadha Public Health Consultant

Sl. No	Meetings	Date	Resource person
49.	Attended National Task Force meeting at Bhubaneswar, which was inaugurated by Hon. Governor of Odisha. Chaired scientific session, guided group discussion and addressed the participants in the concluding session	3 rd & 4 th March 2014	Mrs. HemaSundram Consultant Microbiologist
50.	Meeting with Dr Ramesh, MO, DOTS Centre, DevarajUrs Medical College, Kolar.	13 th March 2014	Dr Prahlad Kumar, Director
51.	a. Attended National Research committee meeting at NirmanBhavan, New Delhi. b. Meeting with DGHS to appraise him the progress report of NDRS; discussion about Admn. & technical issues of NTI, Bangalore	19 th March 2014	Dr Prahlad Kumar, Director
52.	a. Meeting with DrRohitSarin, Director, NITRD to discuss collaboration between the two National institutions. b. Meeting with DrRanjani Ramachandran, DrSreenivasan and DrSachdeva regarding action plan for NDRS.	20 th Mar 2014	Dr Prahlad Kumar, Director
53.	a. Attended second meeting of sub-committee for the diagnostic algorithm under RNTCP at AIIMS, New Delhi. b. Meeting with DrSachdeva, DrRanjani Ramachandran, DrSreenivasan, DrMayankGhedia and Dr Amar Shah regarding NDRS sensitization workshop to STOs, STDC Directors and Headquarters consultants to be organized on 24-25 April 2014 at NTI	22 nd Mar 2014	Dr Prahlad Kumar, Director Dr V K Chadha Public Health Consultant

g. Central Internal Evaluation & EQA Onsite Evaluation (OSE)

The faculty of the Institute assisted the Central TB Division in Internal Evaluation with the objective of assessing the achievements and constraints encountered in implementation of RNTCP and to provide recommendations for necessary corrective actions. The details of such visits are as under:

Sl. No.	Name & Designation of the officer participated	Period	Place of conducting
1	Mr. N.Sangeetha Chief Statistical Officer (NFSG)	17 th -21 st June 2013	Participated in Central Internal Evaluation at Punaloor TU, Kollam DTC,STO Trivandrum, Kerala
2		29 th July - 2 nd Aug 2013	Participated in Central Internal Evaluation at Rander, TU & SMC DTC, STDC Ahmedabad, Gujarat
3	Dr. S.K.Tripathy	26 th to 30 th August 2013.	Participated in Central Internal Evaluation AT Chhattisgarh
4	Dr. Selvakumar and Mr. Raghunandan. N	2 nd & 3 rd Jan 2014	Karnataka IRL for OSE

h. INSTITUTIONAL ETHICS COMMITTEE MEETING

Meeting	Participants	Date & Place
Institutional Ethics Committee meeting to finalize two research protocols.	Dr. Prahlad Kumar, Director Dr. Preetish S. Vaidyanathan, CMO-NFSG	25 th April 2013at NTI, Bangalore

8. VISITORS

During the year the Institute had the privilege of having the following dignitaries as visitors.

Sl. No.	Name of visitor	Date	Details of visit
1.	Dr Ravindra Pattar, Director, Internal Finance	8 th April 2013	To discuss the reply to be framed on the audit para made by Audit Party and financial issues pertaining to the annual plan and recruitment of professionals during the financial year. I/c Admn. and I/c Accountant participated in the discussion.
2	Dr Suresh Rathi, Sr. Medical Research Officer from Centre for Global Health Research, Bangalore,	6 th May 2013	Regarding collaboration on operational research between NTI and their Centre.
3	A team of experts from CDC Atlanta, STO & STDC Director, Head Quarters Consultants and DTO, Kolar,	28 th May 2013	To discuss various components of development of Modal DOTS in the district of Kolar, Kar., based on the approved new strategic plan of RNTCP Phase III. The Model DOTS team members of NTI took part in the discussion. Discussions were also held on the modalities of strengthening various components of RNTCP in the districts. Agenda of the field visit by the Team to RNTCP facilities, State TB Cell, STDC, Karnataka, DTC, Kolar, Treatment Units, etc., in consultation with RNTCP Karnataka team was prepared.
4	Dr Martin Colla from Cepheid, Geneva,	12 th June 2013	To discuss regarding utilization of Gene Xpert machine for early detection of MDR cases.
5	Sandra Elizabeth Roelof 1 st lady of Georgia, visited along with WHO focal point Dr. Ranjini Ramachandran, to NTI laboratory	20 th June 2013	The 1 st lady of Georgia, was briefed about the various activities carried out in the Laboratory
5	A team of experts from CDC Atlanta and WHO	28 th June 2013	To discuss preparation of action plan for initiating the pilot of DR survey and to finalise the SOPs. Concerned officers from NTI also participated in the meeting.

Sl. No.	Name of visitor	Date	Details of visit
6.	DrNeerajKulshrestha	2 nd July 2013	To discuss pending administrative issues viz., filling up of vacant posts of Group 'A' and 'B'; recruitment of Group 'A' posts approved in the 12 th V year plan and other administrative issues. I/c E&R Division and I/c Admn. & HR Division participated in the meeting.
7.	Ms Rigveda and MrManjot from CHAI Foundation; DrNeerajKulshrestha, DrKiranRade, DrMyankGhedhia from CTD;	3 rd July 2013	To discuss mathematical modeling, Dr V.K. chadha, Dr Preetish S Vaidyanathan, DrSomashekar, MrJitendra from NTI; DrAnand, Reena from NRL, NTI; also attended the meeting, which was chaired by Director.
8.	DrKohli, Consultant from CTD,	31 st July 2013	To discuss the research documentation and the data base of operational research being developed by NTI to support the state zonal OR committee. I/c HRD also took part in the discussion.
9.	State TB Officer, Director, STDC, Karnataka and BBMP Coordinator	6 th August 2013	Regarding a project involving BBMP to be carried out by NTI. This meeting was chaired by Director and attended by I/c E&R, Sr. Statistical Officer, Sr. TB Specialist and staff of E&R Division.
10.	DrParamsivam.	8 th August 2013	To discuss various activities to be supported by FIND to the labs developed in IRLs supported by NTI and the activities to be carried out by ICELT
11.	Prof. Vijaya of Indian Institute of Science, Bangalore,	13 th August 2013	To discuss the joint research project to be taken up by IISc., and NTI involving animal lab of NTI.
12.	Dr Anil from Samridhi.	28 th August 2013	To discuss modalities to develop negative pressure area in the institute. I/c NRL, Jr. Bacteriologist and I/c ICELT participated in the discussion
13.	DrMayankGhedhia, RNTCP Consultant, CTD,.	1 st Oct 2013	To discuss technical activities of the Institute, concerning lab
14.	Shri P.K. Pradhan, former Union health Secretary, GOI & currently Hon. Member of CAT, Bangalore,	28 th Oct 2013	About functioning of the Institute. The Hon. Member visited various sections of the Institute.

Sl. No.	Name of visitor	Date	Details of visit
15.	Members of high level committee constituted by Min. of H&FW, GOI	11 th Nov 2013	To review the existing structure, responsibility and administration of DteGHS and various Institutes under it. The members DrNerges Mistry from Mumbai and Dr John J from Vellore were received and a presentation on NTI structure and functioning was made, which was followed by visit to various Divisions of the Institute, as per decisions of the members of the committee.
16.	The world bank team lead by Dr Sayed GulamDastagir and DrShikhaDhawan, CTD Representative	14 th Nov 2013	Visited the Institute. A presentation on the activities of NTI and technical support provided by NTI to the CTD & state TB control programme units and STDCs for effective management of RNTCP & PMDT was made. An interaction was also arranged with other officials as desired by team members.
		18 th Nov 2013	Second meeting was held about functioning of NTI and its support to CTD and other units of RNTCP in the country
17	Two Microbiologists from NIRT, Chennai	19 th Dec 2013	To discuss strengthening coordination between NRL NTI and NIRT. Deliberations were held at length on some of the identified issues to strengthen coordination between the labs of these two premier institutes.
18	DrSahai, former STO, Bihar, currently posted at ICMR lab, Patna,.		To discuss strengthening of lab component of PMDT in Bihar
19	The Joint Secretary, Sri Anshu Prakash, Min. of H&FW, GOI	22 nd Jan 2014	A brief presentation on the activities of NTI was made and the JS visited various divisions of the Institute and had interaction with the staff. He also addressed the faculty of NTI and participants of the on-going RNTCP modular training, emphasizing greater role of NTI in supporting HRD; NRL; OR and capacity building of programme managers and teachers of medical colleges to render appropriate support to RNTCP.
20	Prof. Vijaya, Indian Institute of Science, Bangalore	11 th Feb 2014	Regarding collaborating studies between IISc., Bangalore and NTI.

Sl. No.	Name of visitor	Date	Details of visit
21	Dr Namita Singh and Dr Prabhakar from Clinton Foundation,	12 th Feb 2014	Regarding collaboration between the two Institutions on new TB diagnostic tools.
22	Dr Balaji Naik, RNTCP Consultant, Karnataka,	20 th Feb 2014	Regarding "TB-HIV air borne infection control study" to be undertaken jointly by NTI and NACO in the state of Karnataka. And also about packaging material to be used for collection and transportation of samples for the National DRS and information about vendors to supply these materials. I/c CTU and I/c RDC also participated in the discussion.
23	Dr Anil, STDC Director, Karnataka	6 th Mar 2014	Regarding NTI support for initiating C&DST lab at Hubli to support PMDT Karnataka.
24	Dr Reuben Swamickan, Project Management Specialist (TB) and Dr Sheila Desai, Senior Science and Technology Advisor, USAID India Health Office, New Delhi	12 th Mar 2014	To discuss collaboration between NTI and partners supporting RNTCP in India.
25	Dr Moonan Patric from CDC Atlanta.	24 th Mar 2014	Regarding progress of NDRS and also collaboration between CDC and NTI
26	Dr Moonan Patric from CDC Atlanta	27 th Mar 2014	About collaboration between CDC & NTI. Also visited negative pressure area at NRL, NTI and ICELT where samples would be processed for NDRS.

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