

**Other Health
Institutions**

Chapter

16

16.1 ALL INDIA INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION (AIIPMR), MUMBAI

All India Institute of Physical Medicine and Rehabilitation, established in 1955, is an apex institute, well recognized for its commitment to provide comprehensive rehabilitation services to persons with severe and permanent locomotor disabilities.

Mission: To optimally enable persons with locomotor disability by quality interventions that go beyond their medical needs, so as to achieve social and economic independence, train Rehabilitation Professionals and undertake Research.

Objectives:

- To create and provide comprehensive medical rehabilitation services for all categories of Neuro-musculo - skeletal disorders including chronic disorders.
- To create and provide services through interdisciplinary approach with emphasis on Disability Prevention and Rehabilitation.
- To train Rehabilitation Professionals through short term orientation courses and long term Graduate and Post Graduate Courses.
- To train Health Functionaries at community level.
- Fabrication of aids and appliances.
- To conduct research in the field of Physical Medicine and Rehabilitation.
- Collaboration and co-ordination with government and NGOs for providing consultative services for formulating improvement and monitoring of rehabilitation services from time to time.

Statement showing different parameters (April, 15– March, 16

Sl No.		OPD	Physiotherapy	Occupational Therapy	Radiology	Pathology	P&O	Speech
1.	No. of PWD (Assessed & Intervened)	35599	18560	19208	X ray 6296 USG - 1497	22620	-	2636
2.	No. of Certificates issued	2523	-	- Driving - 384-	-	-	-	-
3.	Surgeries performed (Major & Minor)	2991	-	-	-	-	-	-
4.	No. of Aids & Appliances delivered	-	-	386	-	-	Orthoses -2794 Prostheses -392	-
5.	Clinics	700	-	-	-	-	-	-

16.1.1 Vocational Training Workshop:

- Number of candidates assisted for self & Open employment-97
- No. of physically disabled for job environment evaluation and suitability for the job- 25
- Number of physically disabled enrolled for Vocational Training in various trades-12
- Placement of the PWD's done in the various private sector organizations with the help of NGO's and local Employment Exchange-30
- Fabrication of Mobility Aids and Seating Devices-97

16.1.2 Medical Social Work Department:

- Augmentation of capacity: Digitization of important records pertaining to Disability Certificates, Establishment, Academic and Account section.
- High Power LASER Therapy, Extra-corporeal Shockwave Therapy, Virtual Reality Therapy, Pulsed Shortwave Diathermy, Computerized treadmill with Body support system, Rehabilitation treadmill, Pressure Bio-feedback unit and Hot and Cold Therapy for physiotherapy department.

- As per RCI guidelines, this Institute established a new computer laboratory with 7 state of the art computers so that the students of III-B.P.O. and I-M.P.O. classes can benefit from the setup of this laboratory.
- A special casting apparatus was developed in Prosthetics and Orthotics department with the help of students to improve the quality of fitting of custom made spinal orthoses.
- Acquisition of latest technology for the manufacture of aids and appliances:
 - 1) Heavy Duty Drilling machine
 - 2) Multifunctional All Round Oscillating Cutter- Light and Heavy Duty
 - 3) Blades for Oscillating Cutters
- 897 trained in Wheelchair gym for spinal cord injury patients.
- 1265 patients with disabilities were treated by physiotherapy unit.

Special Services provided

- **Physical Medicine & Rehabilitation** in collaboration with radiology department started interventional pain management services and Ultra sound guided various interventions like Nerve blocks, Intra articular injections and Steroid and Botox injections.
- **Speech Therapy Department:** Hearing screening programme for children with age group 0 to 3 years using OAE and BERA screener started from 2014. In the year 2015-16 – 56 babies were screened and 09 were referred for further evaluation as they did not passed on OAE & BERA. Pure tone Audiology for adults – 23 cases was assessed.
- This Institute established a new computer laboratory for PwD with 7 state of the art computers so that the PWD students can benefit from the setup of this laboratory.

- **Sports and Recreation:** Prepared the physically challenged candidates to participate in various sports and recreation activities.
- **Squatting Prosthesis** for Trans-Tibial Amputees considering suitability for Indian amputees.
- **New Knee Braces for Osteo-Arthritis** is being provided to the patients as per requirement.

16.1.3 New Academic Activities

- Commencement of fellowship courses in Rehabilitation Physiotherapy & Occupational Therapy affiliated to MUHS, Nashik.
- Institute library has access to NML and ERMED consortium of journals.
- **In-service Training:** As a part of capacity building activities staff of Institute is sent on various administrative and academic training programme.

In-service Training for Medical and Paramedical	Hindi Training	Administrative Training
12	04	09



Amputee Rehabilitation on Treadmill

16.2 ALL INDIA INSTITUTE OF SPEECH AND HEARING (AIISH), MYSORE

The All India Institute of Speech and Hearing (AIISH), Mysore, established in 1965, is a leading Institute in the country providing training, research, patient care and public education in communication disorders. The major activities carried out by the Institute from 1st April to 31st October 2016 are given below.

Academic Activities

The institute offered 17 academic programmes and 512 students were admitted to various programmes. National level entrance examinations were held for B.ASLP, M.Sc. (Audiology) and M.Sc. (SLP) programmes. Totally, 114 short-term training/orientation programmes and 14 workshops/seminars on various aspects of communication disorders were conducted during the period. The workshops/seminars conducted include International Workshop on Advancements in Audiometric Calibration, National Conference on Clinical Aphasiology, and the National Seminar on Newborn Screening. Also, an Assistive Technology Hackathon was held in collaboration with the IEEE Special Interest Group on Communication Disability. In addition, activities such as guest lectures by eminent personalities, departmental peer evaluation, journal club and clinical conference presentations were organized during the period.

Research Activities

Totally, 69 research projects were progressing in different departments of the institute during the period. The funding for the research projects was sponsored by organizations such as the Department of Science and Technology, Govt. of India and Indian Council of Medical Research, in addition to the funding given by the Institute. A Facility for Advanced Auditory Research (FAAR) was also launched in the Department of Audiology.

Clinical Activities

The institute offered a wide variety of clinical services to a total number of 41218 persons with

communication disorders. The clinical services offered include assessment and rehabilitation pertaining to speech, language and hearing disorders, psychological and otorhinolaryngological disorders related to communication disorders. In addition, specialized clinical services were also rendered on augmentative and alternative communication, autism spectrum disorders, cleft lip palate and other craniofacial anomalies, fluency, learning disability, listening training, motor speech disorders, neuropsychological disorders, professional voice care, swallowing disorders, voice disorders and vertigo.

A Clinical Data Management Software was launched during the period. The major clinical statistics for the period are given below.

Clinical Services	No. of Clients	Therapy Sessions / Surgery
Speech and language assessment	4872	24967
Hearing evaluation/ listening training	8609	1731

Hearing Aid and Ear Mould Services

Totally, 4897 clients were evaluated for hearing aids and 774 hearing aids were distributed under the scheme of Assistance to Disabled Persons (ADIP) for purchase/fitting of aids/appliances of the Ministry of Social Justice and Empowerment, Govt. of India and 1153 hearing aids under the AIISH Hearing Aid Dispensing Scheme. In addition, 4056 ear impressions were taken and ear moulds were made.

Educational Rehabilitation of Special Children

Totally, 213 children with hearing impairment, cerebral palsy and mental retardation underwent pre-school training. 91 parents of special children attended the parent empowerment programs. Pre-school graduation ceremony was held for the children attending the pre-school of the institute and a one-month summer camp for special children was organized. In addition, an innovative programme for special children named Special Use of Music for Educational Readiness and Up-building (SUMERU) was inaugurated.

Outreach Services

Various outreach activities were carried out for the early identification and prevention of disabilities related to speech and hearing during the reporting period. The major ones are given below:

- Totally, 30 communication disorders screening camps were conducted in various localities of Karnataka in which 2359 persons were evaluated and provided therapeutic services.
- 517 employees were evaluated for hearing disorders as a part of Industrial Screening program.
- Neonatal and pediatric screening of communication disorders were conducted for 25921 neonates and infants at 19 hospitals/immunization centres in Mysore, the six outreach service centers of the Institute located in different parts of Karnataka and the six newborn screening centres of the institute at JIPMER, Puducherry, JLNMCH, Ajmer, NSCB, Jabalpur, RIMS, Imphal, RIMS, Ranchi and SCBMC, Cuttack.
- Speech and hearing diagnostic and therapeutic services were given to 1598 persons residing in the nearby areas of the four outreach service centers of the institute located in Mysore, Mandya and Chamarajanagar districts.
- Preparation and distribution of communication disorders related public education materials like manuals, brochures and pamphlets both in print and CD/DVD-ROM formats were carried out.
- Seven public lectures by experts on various issues in disabilities were organized to create awareness among the public.
- Tele-diagnostic and rehabilitation services were delivered to 163 persons with disabilities at distant places.

16.3 ALL INDIA INSTITUTE OF HYGIENE & PUBLIC HEALTH (AIHH&PH), KOLKATA

All India Institute of Hygiene & Public Health

established on 30th December 1932 in Kolkata, is a Pioneer Institute of its kind dedicated to teaching, training and research in various disciplines of Public Health and Allied Sciences. The teaching, training, and research at AIHH&PH have the unique support of its field laboratories, namely, Urban Health Centre, Chetla and Rural Health Unit & Training Centre, Singur. The Institute has two campuses at Kolkata.

The institute has been providing teaching and training in various disciplines of public health through its regular and short term training programs. Details of various courses by the Institute are given below:

Sr. No.	Department	Course
1.	Preventive & Social Medicine (PSM)	MD (Community Medicine)
2.	Environmental Sanitation and Sanitary Engineering	Short courses and assistance to other courses
3.	Microbiology	Master of Veterinary Public Health
4.	Epidemiology	Postgraduate Diploma in Public Health Management. (PGDPHM)
5.	Biochemistry & Nutrition	M.Sc. in Applied Nutrition, Diploma in Dietetics. (Dip. Diet)
6.	Public Health Administration	Diploma in Public Health (DPH)
7.	Maternal and Child Health	Short courses and assistance to other courses
8.	Occupational Health	Short courses and assistance to other courses
9.	Department of Health Promotion & Education	Diploma in Health Promotion & Education (DHPE)
10.	Statistics	Diploma in Health Statistics, Short Courses & Assistance to other courses
11.	Public Health Nursing	Short Courses and assistance to other courses.

New Initiatives and Activities

- A new course on public health, namely, MPH (Epidemiology) has been introduced under the Postgraduate Medical Education Regulations 2000.

16.4 CENTRAL LEPROSY TEACHING AND RESEARCH INSTITUTE (CLT&RI), CHENGALPATTU

16.4.1 Introduction

Central Leprosy Teaching and Research Institute (CLT&RI), Chengalpattu was established in 1955, (by taking over Lady Wellington Leprosy Sanatorium established in 1924).

It has separate wings of Epidemiology and Statistics, Clinical, Medicine, Microbiology and Biochemistry laboratories with Animal House facilities, Surgery and Physiotherapy.

This institute caters to both indoor and outdoor patients. The hospital has a bed capacity of 124 patients. This Institute is also recognized as one of the nodal center by the Central Bureau of Health Intelligence (CBHI), DGHS, Government of India for conducting Health Statistics training course for Medical Officers.

Objectives:

- To undertake research in basic problems relating to the occurrence and spread and complication of leprosy.
- To train manpower necessary to implement NLEP.
- To provide specialized services for diagnosis of leprosy, reaction, relapse and Reconstructive surgery.

- To monitor and evaluate the NLEP.
- To function as a pivotal center for promoting anti leprosy work in the country.

16.4.2 Training:

The institute is actively providing training to State/ District Leprosy officer (5 days) Medical Officer (5-days), post graduates Physiotherapy Technician (9 months course), Non-Medical Supervisor (2 months), Skin Smear Training (5 days), Skin Smear Refresher Training (2 days), NLEP training for PGs (Dermatology, SPM, Microbiology) Biotechnology Students, Master Public Health Students and CRRI. Academic visit training Programme for various Medical, Paramedical and Biotechnology Institutions.

Sl. No.	Name of Training Course	Duration of the Course	Participants per Batch	No. of Batches conducted
1	NLEP Training for State / District Leprosy Officer	5 days	14	01
2	NLEP Training for District Leprosy Consultant	3 days	6	01
3	Tertiary Care Management of Leprosy	15 days	4	02
4	NLEP Training for PG Community Medicine	5 days	7	02
5	NLEP Training for Non-Medical Health Supervisor's	2 months		
6	In plant Training in Bio-Technology	10 days	1	01
7	Skin Smear Technician Training	2 / 5 days		--
8	NLEP Training for Health Supervisors	5 days	4	01
9	NLEP Training for Field Investigators	5 days	24	01
10	Internship for CRRI Training	4 / 5 days	67 / 45	15 / 39
11	NLEP Training for Medical Officer	3 days		--
13	Physiotherapy Technician Course	9 months		--
14	Observational Visit for Medical Student	1 day	158	07
15	Observational Visit for Nursing Students	1 day	40	02
16	Observational Visit for Bio Technology	1 day	02	02

16.5 REGIONAL LEPROSY TRAINING AND RESEARCH INSTITUTE (RLTRI), RAIPUR

RLTRI, Raipur was established in the year 1979 with the aim to provide training, research and treatment for the leprosy affected persons under administrative control of Central Leprosy Division of DGHS.

The Institute is having 60 bedded indoor patient services and is providing daily OPD services. It is also having well equipped laboratory and well trained technical manpower in the laboratory for skin smear examination and other laboratory investigation. The institute is also having well equipped Operation Theatre and an expert Orthopaedic Surgeon to undertake various kind of Re-constructive surgery for leprosy related deformity. The institute also carries out Polio Surgery and provide technical guidance as and when required.

The institute organizes following Training Programs routinely in the field of leprosy.

1. Senior Regional Directors Training (3 Days)
2. National Level SLO/DLO/BMO Training (1 week)
3. Skin smear Technician Training from Chhattisgarh and other states (1 week)
4. Physiotherapist Training from Chhattisgarh and other states (1 week)
5. NMS/ NMA/ Supervisory Staff from Chhattisgarh and other states (5 Days)
6. Final year MBBS/AYUSH Students orientation training in Leprosy (1 day)
7. BPT Interns training (1 week duration)
8. MSC/BSC Nursing/ ANM Students orientation training in Leprosy (1 Day)

The institute has been assigned additional responsibilities of Regional Office of Health and Family Welfare (ROHFW) for the State of Chhattisgarh to monitor various National Health Programs including NLEP at state and district level

and cross checking of beneficiaries like JSY, immunization status of children, ANC/PNC follow up, eligible couple using different contraceptive methods, work of ASHA (Mitanin) at different level.

16.6 REGIONAL LEPROSY TRAINING AND RESEARCH INSTITUTE (RLTRI), ASKA

Established in the year 1977, the institute is a 50 bedded hospital and average bed occupancy is about 44.247%. The Institute provides both outdoor and indoor services to leprosy patients. The Institute also works as a referral center for management of difficult to diagnose leprosy cases and problematic, complicated and intractable cases of reaction and ulcers. Thalidomide is also given to intractable recurrent ENL reaction cases. Physiotherapy measures and MCR chappals are provided to needy patients. Amputation and various other surgical procedures are carried out regularly and RCS (reconstructive Surgery) camps have been done in the past. It also works as a nodal training and research center for the cause of leprosy elimination.

Brief activities performed by this Institution :- (1st April, 16 to 30 November, 16)

1. OPD Attendance- 1104 (Leprosy-828, Non-leprosy-276)
2. Indoor admission: 151.
3. Reaction cases managed (OPD) - In 213 episodes of reaction Type I – 168 & Type II -45 out of which 3 patients has given Thalidomide.
4. Major surgeries - 17 & Minor Surgeries-125.
5. DPMR- MCR Chappals –41.
6. Lab.:- Total Inv.- 246.
7. Training: - Faculty of this Institute participated as resource person to impart modular training in NLEP to doctors and paramedical staffs of state and also participated in NLEP review and planning meetings of state. A total of 154 MO's /DLO/DLC were trained in three batches and

123 AYUSH M.O.s in four batches. Also participated as resource person in CMT training on Leprosy and as central monitor Level-II LCDC for the state of Karnataka, Uttarakhand, Uttar Pradesh and Odisha.

16.7 REGIONAL LEPROSY TRAINING AND RESEARCH INSTITUTE (RLTRI), GOURIPUR

Regional Leprosy Training and Research Institute, Gouripur, Bankura, West Bengal is a 30 bedded leprosy hospital set up in 1984 with the objectives:

- to create sufficient trained man-power different categories including Medical Officers, for better implementation of NLEP in different Indian states, especially, of the North Eastern region of India to eradicate/eliminate leprosy and
- to carry out operational research on leprosy.

The institute has been conducting Training of Trainers (TOT) course on NLEP for Senior Medical Officers (DLOs & BMOs), MOs Training on NLEP of three days duration and PMW Training on Leprosy of five days duration throughout the year as per schedule which is available in NLEP Website also. The institute also arranged one day orientation training on leprosy for M.Sc/B.Sc/GNM Nursing Students as well as AYUSH students from different Govt./Non-Govt. Institutes. In addition, OPD services, mainly referral, 03 days a week for the public afflicted with leprosy.

Activities up to November, 2016

1. Indoor: Admission - 118 nos. Discharge- 130 nos. Bed Occupancy Rate 58.77, Bed Turn Over Rate - 4.33.
2. O.P.D.: -New Case 09 nos. Other Cases - 05, Old Cases - 1339, MDT given - 143, Referred Patient - 371, General patient attended - 662, RFT- 10 nos. Relapse - 04,
3. Field /IEC Activities: Group Discussion 219, Leaflet distribution -1910 Nos, IEC programme - 43, Village Covered - 43
4. Laboratory Unit: - Slit skin smear - 545 nos. Bio-chemistry - 492 nos. Clinical Pathology - 254.

5. Physio Unit: Exercise - 2562, Muscle stimulation - 13, Infra Ray - 103, Wax therapy - 42.

6. Training: One PMW training programme on Leprosy conducted. 28 nos. candidates attended the programme. One Day Orientation Training on Leprosy given to 107 nos. GNM Nursing Students & B.Sc. Nursing students

16.8 VALLABHBHAI PATEL CHEST INSTITUTE (VPCI), NEW DELHI

The Vallabhbhai Patel Chest Institute (VPCI) is a unique research institution devoted to the study of Chest Diseases and allied sciences and is funded by MoHFW.

The Institute continues to conduct postgraduate courses [Diploma in Tuberculosis & Chest Diseases (DTCD) MD, DM in Pulmonary Medicine, MD in Biochemistry, Microbiology, Pharmacology, Physiology and Ph.D in Pulmonary Medicine, Microbiology, Pharmacology, Physiology, etc.] in chest diseases in India. The Institute continues to organize Conferences/Symposia/CMFs and Public Lecture programmes to disseminate medical education to its students and general public of the society.

The Institute continues to conduct research on basic and clinical aspects of chest medicine, in Pulmonary Medicine and allied subjects.

The Viswanathan Chest Hospital (VCH), the clinical wing of the Institute, is a tertiary care Chest Hospital with state-of-the-art patient-care facilities. This 128 bedded Hospital with 24 hours Respiratory Emergency services, continues to treat almost 70,000 OPD patients and 5000 Indoor (General and Emergency Wards) patients annually. The Institute also continues to provide diagnostic facility for the pandemic influenza H1N1 virus. The National Center of Respiratory Allergy, Asthma and Immunology (NCRAAI), Allergy Clinic, Tobacco Cessation Clinic, Cardio-pulmonary Rehabilitation Clinic, Sleep Lab., Yoga Therapy Research Centre, National Tobacco Quit Line service, Multi-Disciplinary Research Unit (MRU) continues to play their important roles in effective VCH functioning. Thus, the Institute continues to provide excellent diagnostic and treatment services including critical care management to patients from Delhi, other parts of the country and neighboring countries suffering from Respiratory Diseases.

Workshop on Sleep Study was conducted by the Institute on July 6, 2015; Symposium on Nitric Oxide: from Research to Applications on April 6, 2015.

PATIENT CARE

1. Diagnostic tests carried out in pathology department for patients in OPD, IPD, Emergency and ICU of VP Chest Institute.

• Hematology and	34743
• Coagulation pathology	1783
• Histopathology	217
• Cytopathology	610
• Clinical pathology	4671

2. Performed various serological (Rheumatoid factor (RA), HBsAg, CRP, Widal etc.) tests as prescribed for patients.

3. Manage chronic respiratory clinic – enrolled patients in supervised rehabilitation program, breathing retraining and education to patients, provide physiotherapy to patients in ICU and ward.

4. Patients attendee to the Cardio-pulmonary Rehabilitation Clinic, VPCI

• Supervised Rehabilitation Sessions	235
• Explained Breathing exercises	148
• Chest physiotherapy	821

5. Total admissions (inclusive of in-patient & out-patient admissions)

• New Patients OPD	12143
• Old Patients OPD	60334

6. Patients attendance in the wards

• General Wards	2411
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• Emergency Ward	2383
• I.C.U.	429
• Emergency treatment provided	21905

7. A number of routine and specialized investigations done at VCIH during the year:

• Pulmonary function tests	24351
• Arterial blood gases	13903
• Bronchoscopy	322
• Bronchoalveolar lavage	114
• X-Rays	26287
• CT scans	3688
• Electrocardiogram	6655
• Polusomnogram	266
• HIV testing	1007
• Clinical biochemistry	64191
• Serum Ig E test performed	5210
• ANA	476
• c-ANCA	476
• p-ANCA	269
• SCL-70	292
• HBsAG	327
• HCV	321

16.9 NATIONAL INSTITUTE OF THE TB AND RESPIRATORY DISEASES (NITRD), NEW DELHI

National Institute of Tuberculosis and Respiratory Diseases (NITRD) is an apex institute well recognized for diagnosis, treatment, teaching, training and research in the field of tuberculosis and respiratory diseases. The Institute has 16

Departments and 11 Sections/Centres.

The Department of Microbiology, which has a National Reference Laboratory, provides quality diagnostic care to both indoor and outdoor patients through the availability of state of art facilities like Line Probe Assay, MGIT system, Gene Xpert and BSL-III facility and has been recognized as a National Centre of Excellence by the World Health Organization (WHO) and the Global Laboratory Initiative (GLI) for the WHO/ GLI TB Supranational Reference Laboratory Network. Other departments like Paediatrics, Respiratory Critical Care and Thoracic Surgery facilitate management of TB and Respiratory Diseases respectively in children, critical patients and those requiring thoracic surgeries.

The Institute runs a daily OPD for diagnosis of TB and various non-tubercular respiratory diseases. The Institute has been implementing DOTS and Programmatic Management of Drug Resistant TB (PMDT) strategies in the management of TB and multi-drug resistant (MDR) TB respectively. The Public Health Dept. of Institute runs the Revised National Tuberculosis Control Programme (RNTCP) in 8 lac population of South Delhi through 8 Designated Microscopy Centres (DMCs) and 8 DOT Centres. Special Clinics like Sleep Clinic, Lung Cancer Clinic, Thoracic Surgery Clinic, Allergy Clinic, Tobacco Cessation Clinic, Pulmonary Rehabilitation Clinic and Laser Therapy clinic, and Pre-Anesthesia Check-up Clinics focus on various Non-tubercular Respiratory Diseases. The Institute provides indoor treatment to the seriously ill patients of Tuberculosis and Respiratory Diseases through 470 beds in wards and ICU. Availability of a 24-hour Respiratory Emergency facilitates critical care delivery to these patients. Diagnostic services are mainly provided by the Departments of Microbiology, Pathology, Biochemistry and Radiology, in addition to, the Pulmonary Function Test (PFT) Lab, Bronchoscopy Lab and Sleep Lab.

The Institute has an infrastructure to provide trainings in various fields of TB and Respiratory Diseases to the trainees from within and outside the country. It is a WHO Collaborating Centre for Training. Further, Institute is a recognized centre for post-graduate DNB (Respiratory Diseases) degree course since 1999 and is now admitting 18 DNB students in the Course during the year. In addition, two students are being

admitted to a 3-year DNB Course in the sub-specialty of Thoracic Surgery. Teaching and research activities are carried out regularly within the Institute.

During the period from April 2016 to September 2016, a total of 29402 new chest symptomatics attended the NITRD-OPD with an average of 196 new registrations per day. The total OPD attendance was 1.1 lacs averaging 738 patients daily. 4513 cases were diagnosed to have TB and were referred out from NITRD-OPD to NITRD-DOTS Centres, to other Chest Clinics in Delhi and to neighbouring states. A total of 39953 Smear Microscopy tests were carried out by the Department of Microbiology. Conventional cultures were applied for 2584 pulmonary and 1853 extra pulmonary specimens, while MGIT liquid cultures were applied for 5587 pulmonary and 1743 extra-pulmonary specimens. Drug susceptibility tests were done for first and second line drugs by Conventional and MGIT methods in a total of 156 and 1637 tests respectively. Line Probe Assay for early molecular diagnosis of resistant TB was done for 2475 samples. Following were other main investigations carried out during the year.

- 92424 Haematology Tests
- 154591 Biochemistry Tests
- 2938 Cytology Tests
- 421 Histopathology Tests
- 42177 X-rays
- 2095 Ultrasounds
- 4681 PFT
- 270 Bronchoscopies with 405 procedures
- 2397 ECGs
- 35 Sleep studies

Hospitalisation and treatment of patients in the Institute were as under:

- 4023 In-door admissions
- 5796 patients attended Emergency ward
- 325 ICU admissions
- 344 Major Thoracic surgeries
- 799 patients alive on Anti-Retroviral Therapy (ART) among those registered with the ART Centre.

16.9.1 Teaching and Training:

The Institute is actively involved in the training of various medical and paramedical personnel from other states of our country, in implementation of strategies under RNTCP. The Institute also provides teaching and training facilities to the post-graduate (M.D./Ph.D) courses of various Universities. Training is also imparted in the management of tuberculosis to the nursing students from Rajkumari Amrit Kaur College of Nursing and the trainee health visitors from New Delhi TB Centre. During the period, about 500 participants (including nursing students) from various areas of health care attended the trainings within the Institute.



Shri Bhanu Pratap Sharma, the then Secretary, MoHFW, Chief Guest, lighting the lamp on the occasion of World TB Day in the august presence of Dr. Soumya Swaminathan, Secretary to Govt. of India, Department of Health Research, MOHFW & DG, ICMR, Shri Anshu Prakash, Joint Secy., MOHFW, Dr. Sunil Khaparde, DDG TB, Central TB Division, MOHFW, Director, Dr. Rohit Sarin and other dignitaries.

16.10 NATIONAL TUBERCULOSIS INSTITUTE (NTI), BENGALURU

16.10.1 Introduction

National Tuberculosis Institute (NTI), Bengaluru established in 1959, is the nodal centre for operational research related to RNTCP. The major activities as a nodal centre is to organize workshops, prepare the research agenda and dissemination of research data through publications.

Some of the important activities carried out by the institute:

Activities carried out during the period 2016-2017

Name of the training	Nos. of Training	Nos. of participants
Revised National Tuberculosis Control Programme (RNTCP) Modular Training	1	29
Training in External Quality Assessment	2	29
Training in Culture (solid) and Drug Sensitivity Testing	2	9
Comprehensive Training Course for Laboratory Personnel (Solid Culture, LPA & CBNAAT)	1	5
PMDT (Programmatic Management of Drug Resistant TB) Training	1	26
Training of Trainers (ToT) on RNTCP Technical and Operational Guidelines for TB Control in India - 2016	2	69
Brain Storming Workshop for e-training module development	1	14
TOT on RNTCP TOG for TB Control in India	1	47
Procurement and Supply Chain Management (Cartridge)	1	32
Training in Liquid Culture MGIT 960 (First line and Second line DST)	1	11

16.11 NEW DELHI TUBERCULOSIS (NDTB) CENTRE, NEW DELHI

New Delhi TB Centre was established as a model TB clinic in 1940 to provide free diagnosis and treatment for TB patients of Delhi and neighboring states. In the year 2005, Central TB Division declared New Delhi TB Centre as State TB Training & Demonstration Centre (STDC) and Intermediate Reference Laboratory (IRL) for Delhi State in addition to its activities as referral Centre for TB and respiratory diseases case of Delhi and neighboring state.

In the year 1997, New Delhi TB Centre joined hands in implementation of Revised National Tuberculosis Control Programme services in Delhi State, and provided DOTs to the patients residing in Old Delhi area.

An insight on New Delhi TB Centre's activities during 2016-2017.

A. Outpatient attendance

Parameters	Upto September, 2016
New out patient registered	5244
Revisits	5015
Total	10259

B. Patients attendance for utilizing various diagnostic/treatment facilities available at New Delhi TB Centre.

Parameters	Achievement upto September 2016
Attending for Laboratory tests	18373
Attending for Mantoux test	4354
Taking treatment under DOT Centre of NDTB Centre	65
Radiological Examinations	762
Attending special clinics (Diabetes, HIV, COAD)	270

Training/IRL Visits/Publications

Parameters	Achievement upto September 2016
Personnel trained	1122
IRL Visits for EQA	11
Supervision & monitoring of chest clinics	15
Research and publications	01

16.12 NATIONAL CENTRE FOR DISEASE CONTROL (NCDC)

Delhi based NCDC has its headquarters in Delhi and has 8 branches located at Alwar (Rajasthan), Bengaluru (Karnataka), Kozhikode (Kerala), Coonoor (TamilNadu), Jagdalpur (Chhattisgarh), Patna (Bihar), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh). The technical Centers/Divisions at the headquarters of the institute are: Centre for Epidemiology and Parasitic Diseases (Dept. of Epidemiology, Dept. Parasitic Disease), Division of Microbiology (including Centre for AIDS & related Diseases and Biotechnology), Division of Zoonosis, Centre for Medical Entomology and Vector Management, Division of Malariology and Coordination. In addition, 3 more centers/divisions (Centre for Non-Communicable Diseases, Centre for Environmental & Occupational Health and Division of Climate Changes & Health) were formed in January, 2015.

Participation by the Centre during the year:

- Organized 2 central teams in July, 2016 to review JE/AES situation in Gorakhpur (UP) and Assam. The report and recommendations for action were presented and submitted to DGHS.
- A team from NCDC visited Jaipur on 1 & 2 May, 2016, to investigate episodes of water/ food borne disease in Government-run institution for the different abled children.

- A team from NCDC & Immunisation Division, MOH&FW investigated Diphtheria Outbreak in the State of Kerala.
- Participated in the India International Trade Fair from 14-27 November, 2016. Material and information on important public health areas were disseminated by the NCDC stall.

Report on Disease/epidemic outbreaks:

- Hepatitis C outbreak in Saharanpur, Shamli; H1N1 outbreak in Punjab were thoroughly investigated by the Institute.
- Dengue & Chikungunya viruses: A total of 24 serum samples were processed for RNA isolation followed by Duplex Reverse Transcriptase Polymerase Chain Reaction (D-RT-PCR) of dengue (511 bp of cPreM gene) and chikungunya (205 bp of E1 gene) viruses, out of which 8 samples were found to be positive for chikungunya virus. Eight chikungunya virus positive samples (RT-PCR of E1 gene) were sequenced on 3130XL genetic analyzer. After analyzing the sequencing data, it was found that all of these samples belonged to East Central South African (ECSA) genotype.

16.12.1 Divisions and Programmes of NCDC:

A. The Integrated Disease Surveillance Programme (IDSP):

The Integrated Disease Surveillance Project (IDSP), launched in November 2004, is now called Integrated Disease Surveillance Programme under National Health Mission. The budget outlay is Rs 640.40 crores. The programme components include:

- Integration and decentralization of surveillance activities through establishment of surveillance units at Centre, State and District level.
- Human Resource Development – Training of State Surveillance Officers, District Surveillance Officers, Rapid Response Team

and other Medical and Paramedical staff on principles of disease surveillance.

- Use of Information Communication Technology for collection, collation, compilation, analysis and dissemination of data.
- Strengthening of public health laboratories and
- Inter-sectoral co-ordination for zoonotic diseases

Human Resources and Training: The recruitment of trained professionals under National Health Mission (NHM) to strengthen the disease surveillance and response system by placing one epidemiologist each at State/District headquarters, one microbiologist and entomologist each at the State headquarters has been approved. The recruitment of 417 epidemiologists, 122 microbiologists, 25 entomologists and 9 veterinary Consultants has been completed under IDSP till October 2016. Training of State/District Surveillance Teams (Training of Trainers) and Rapid Response Teams (RRTs) has been completed in all 36 States/UTs. Need based special two-week disease surveillance and Field Epidemiology Training Programme (FETP) have been initiated for the District Surveillance Officers.

The IT network has been established at 776 sites (connecting all the State/UTs and District headquarters, medical colleges, Infectious Disease Hospitals (IDHs), and premier health institutions) for data entry, data transference, analysis and video conferencing with the help of National Informatics Centre (NIC). IDSP has started one stop portal (<http://www.idsp.nic.in>). Currently, HR module has been added to IDSP portal.

Strategic Health Operations centre: The Centre has been established under IDSP to strengthen the outbreak detection and response capacities of the States and Districts by utilizing state-of-the-art information technology. An infectious disease outbreak plan has been prepared along with 47 standard operating procedures (SOPs) encompassing all the divisions and technical activities of NCDC that pertain to utilization of SHOC during a response to an infectious disease outbreak.

Data Management: Under IDSP, data are collected on epidemic prone diseases on weekly basis. Presently, about 96% districts in the country report weekly surveillance data on epidemic prone diseases through e-mail or portal. The states and districts have also been asked to notify the outbreaks immediately to the system. In 2016, 2369 outbreaks have been reported till 9th October, 2016. IDSP established surveillance system for Simhastha 2016 during May- June 2016, Ujjain, to support the State in surveillance of acute infectious diseases and prevent the occurrence of outbreaks.

Media scanning and verification cell: IDSP has reported and verified 490 media alerts from 1st January 2016 till 31st October 2016.

Strengthening of Laboratories: District laboratories are being strengthened for diagnosis of epidemic prone diseases in a phased manner. Till date 117 labs in 29 States have been made functional. Presently this network is functional in 24 states involving 107 labs. In addition, a network of 12 laboratories has been developed for Influenza surveillance in the country. These Laboratories are testing clinical samples of Influenza A H1N1 in different regions of the country.

B. Division of Parasitic Diseases:

(i) **Yaws Eradication Programme (YEP):** The disease has been declared eliminated on 19th September, 2006. WHO in May, 2016 conveyed that India has achieved interruption of transmission of yaws. India is the first Member State to achieve this important milestone.

(ii) **Guinea Worm Eradication Programme (GWEP):** The last guinea worm case in India was reported in July 1996 in Jodhpur district of Rajasthan. World Health Organization certified India as guineaworm disease free country in February 2000. Routine surveillance is being continued till the disease is eradicated globally.

C. Zoonosis Division:

The objectives of the division is to provide technical support for outbreak investigations, conduct operational research and trained manpower

development in the field of zoonotic diseases and their control in the country. Diagnostic support is provided to State Governments for laboratory diagnosis of zoonotic infections of public health importance. The Division has a reference Laboratory for Plague. It has also been recognized by the World Health Organization as WHO Collaborative Centre for Rabies. Currently the work is being carried out on following Zoonotic diseases: Plague, Rabies, Kala-azar, Arboviral infections (Dengue, JE, Chikungunya, CCHF & Zika) Toxoplasmosis, Brucellosis, Leptospirosis, Rickettsiosis, Hydatidosis, Neurocysticercosis and Anthrax.

Ongoing Programmes under Zoonosis Division are the National Rabies Control Programme and the Programme for Prevention and Control of Leptospirosis. For strengthening Inter-sectoral coordination for prevention & control of zoonotic diseases, the activities conducted in Jan-Oct 2016 are:

- The Manual for Zoonotic Diseases of Public Health Importance publication has been reviewed and updated.
- Coordination of Joint orientation training course (IVRI & NCDC) on zoonotic diseases of public health importance for medical and veterinary professionals being organized at NCDC from 28 November- 2 December, 2016.

D. Division of Microbiology (including CARD and Biotechnology):

Broad activities:

- Referral diagnostic services for viral, bacterial and mycotic diseases like Influenza, Polio, Hepatitis, Measles, Cholera and acute gastroenteritis, Meningococcus etc.
- National laboratory for Polio surveillance (AFP; acute flaccid paralysis) and environmental (sewage) poliovirus surveillance
- Laboratory support to outbreak investigations and Integrated Disease Surveillance Programme (IDSP)
- Microbiological analysis of environmental samples

- Training on laboratory aspects of communicable diseases.
- Procurement /Preparation and supply of reagents; culture media; diagnostic kits to the Country network of collaborating laboratories and for outbreak investigations.

The ongoing Projects is a Diarrhoeal Diseases Laboratory (DDL) for the study of acute gastroenteritis cases in paediatric population of Aruna AsafAli Hospital.

Two New Initiatives were undertaken under the 12th Five Year Plan (2012-2017):

- (i) **National Programme on Containment of Anti-Microbial Resistance** with an allocated budget of Rs. 30.00 crores. The National Action plan for AMR containment (NAP-AMR) will be rolled out before May, 2017. A National training workshop on use of WHO Net software for strengthening AMR surveillance, organized by WHO in coordination with MoHFW & ICMR for AMR Surveillance network labs under NCDC and ICMR was held during 27 – 29 July, 2016. The draft National Infection control guidelines are in the process of finalization. A CME programme on rational use of antibiotics for General practitioners of Delhi was also held on 25th May 2016 at NCDC, Delhi. An Antibiotic awareness programme was also organized in coordination with LHMC and WHO India on 17th November as part of World antibiotic awareness week (14-20 November, 2016). An antibiotic use study was initiated at Safdarjang Hospital, Delhi in November, 2016.
- (ii) **National Programme on Prevention and Control of Viral Hepatitis in India** was sanctioned under the 12th Five Year Plan (2012-17) with an estimated budget of 30 crores. A network of laboratories is being set up for carrying out surveillance of different types of Viral Hepatitis (A, B, C, D and E). 3 laboratories have been assessed to be included in the Viral Hepatitis Surveillance Network Laboratory. The process of procurement of equipment and reagents to be supplied to these laboratories, manpower hiring etc. has also been initiated. “Viral Hepatitis-The silent disease: Prevention,

Control and Treatment guidelines” have been published.

The Centre for AIDS and related Diseases carried out a total of approximately 12,500 tests in this evaluation. The internal audit of the Centre as per ISO 15189:2012 was conducted by NABL trained auditor on 20/10/2016.

The Influenza Laboratory is responsible for testing samples for H1N1 and other types of Influenza viruses sent from hospitals in and around Delhi. It carries out routine referral testing as well as surveillance work from the sentinel surveillance sites. Testing is done by real time RT- PCR for H1N1 and other Influenza viruses using CDC approved protocol and reagents.

The Diarrhoeal Diseases Laboratory received 41 samples /isolates from different States from which 11 *Vibrio cholerae* O1 and 25 *E.coli* were isolated. 110 antimicrobial susceptibility testing and 70 stool microscopy was also carried out by DDL

The Medical Mycology Laboratory received a total of 28 specimens of CSF, sputum, tissue etc. These were processed during the period in question and 1 *Cryptococcus neoformans* and 1 *Actinomyces* species has been isolated.

The Viral Hepatitis laboratory received 602 samples during the year. The No of tests performed on these samples marker wise: - Anti HAV IgM 538; Anti HEV IgM 536; Anti HCV 60. Another 60 samples were also tested for Anti HCV during outbreak investigation from suspected cases at Samli, UP.

The Bacteriology Laboratory processed a total of 386 specimens for bacterial culture.

The Environmental Laboratory received a total of 288 samples which were processed for bacteriological analysis by Most Probable number method. Under the National Polio Surveillance programme, 342 sewage water samples were processed for polio virus.

The Central Media Supplies: A total of 16053 numbers of media of culture plates and tubes prepared and supplied to the different laboratories for diagnosis, surveillance and outbreak/field investigations.

The virology laboratory has been providing diagnostic support for diseases like measles, mumps, Epstein Barr virus, Parvo virus, varicella zoster virus and enteroviruses. The laboratory plans to strengthen facilities for diagnosis of enteroviral diseases. It also plans to establish diagnostic tests for cases of acute viral encephalitis and help in outbreak management of the same.

The Virology-1 Laboratory (National Polio Laboratory) is the WHO accredited lab for Polio Virus isolation typing and intratypic differentiation. The laboratory tests around 70 AFP samples per day.

The National Polio laboratory supports Environmental Polio virus surveillance (EPS).

NCDC is also a part of Measles Elimination Project in collaboration with WHO. NCDC has started surveillance of measles outbreaks in and around Delhi from November 2014 under this project.

E. Division of Biotechnology:

The Biotechnology division provides molecular diagnostic services, molecular epidemiology, specialized training and applied research on various important epidemic-prone diseases of public health importance for Molecular Diagnostic support for confirmation of microbial pathogens, to identifying new, emerging and re-emerging pathogen, for Genotyping and Sub-typing of strains and for characterizing drug-resistant strains.

Ongoing Research activities:

- **HIV-2:** Peripheral Blood Mononuclear Cells (PBMCs) were isolated and DNA was extracted from 6 HIV-2 positive patients. These DNA samples were amplified by diagnostic nested PCR for HIV-2 specific 5`LTR region (140 base pairs) and all the six samples were found to be positive for HIV-2. These DNA samples were also amplified for Gag (781 bp) and Reverse transcriptase gene (995 bp) of HIV-2. Nucleotide sequencing was carried out for all the six samples for these three genes.
- **Influenza:** A total of 306 nasal/throat samples of pandemic and seasonal influenza belonging to year 2015 and 2016 were studied for Oseltamivir

Resistance of Influenza A virus (NA gene). Out of the samples tested, 70 gave the amplification results by MAMA-PCR (NA gene & CAC/CAT->TAC/TAT mutation).

Workshops/Trainings/Tours:

- Foundation for Quality India (FQI) 150th NABET accredited certificate course in ISO 15189:2012.
- Internal Auditors and Quality Management System 8-11 August 2016 at NCDC, Delhi, India.
- A National meeting of Task Force (Microbiology) from 29 – 31 August, 2016 for finalization of training modules for microbiology and its assessment tool at Delhi was organized.
- A hands on training of Microbiologists (Teaching and Non-teaching Specialists) on outbreak prone emerging and re-emerging diseases was organized at NCDC during 16-19 March 2016
- Training on 'Biosafety practices in Public Health Laboratories' was organized on 28.06.2016 at NCDC.

F. Centre for NCD & Biochemistry Division:

The Centre for Non-communicable Diseases was established in Feb 2015 to monitor & evaluate the NPCDCS programme, for the development of training plan & curriculum for all category of staff under NPCDCS by partnering with professional bodies, for planning and participation in the internal and external evaluation and review meetings of the NPCDCS programme, for the development of surveillance mechanism & tools in coordination with national institutes e.g ICMR and for advocacy with policy makers and NPCDCS programme managers.

G. Epidemiology Division:

The activities of the division are to organize and coordinate training courses in Epidemiology to develop trained health manpower. It also develops teaching materials such as Modules, Manuals etc. on disease surveillance and outbreak investigation of epidemic prone communicable diseases. It investigates outbreak of diseases of known/ unknown

etiology and recommend measures for its prevention and control to the States/UTs of the country. It also supervises the three branches of the Institute viz., Alwar (Rajasthan), Jagdalpur (Chhattisgarh) and Conoor (Tamil Nadu). It also provides technical support to various National Health Programmes in the form of developing guidelines for control, manpower development, evaluation of different components/indicators and carry out field research on different aspects of communicable diseases.

NCDC is also a WHO Collaborating Center for Epidemiology and training. The division of Epidemiology conducts regular training programmes and various short-term training activities for the States/Union Territories of India. Trainees from neighboring countries like Nepal, Bhutan, Sri Lanka, Thailand, Timor-Leste, Maldives and Indonesia also participate in some of the programmes. A Regional Field Epidemiology Training Programme course for medical personnel of South East Asia Region was conducted from 1st August to 29th October 2016. The 12th batch of MPH (FE) was inaugurated on 1st Aug 2016. Ten officers are attending training in the 4th cohort of the India EIS training which started on 5th October 2015.

H. Centre for Medical Entomology and Vector Management:

Centre for Medical Entomology and Vector Management undertakes research, provides technical support and develops trained manpower in the field of vector-borne diseases and their control. The centre provides technical guidance, support and advice to various states and organizations on outbreak investigations and entomological surveillance of vector-borne diseases and their control. The Centre carried out outbreak investigation of Malaria in Dhalai District from Agartala. It also carried out the Aedes surveillance from 10 international airports/seaports. In addition, it also evaluated the plant extract of Agava spp plant against mosquito larvae and initiated evaluation of DuraNet LLIN at three location i. e. Alwar, Jagdalpur & Rajahmundry. Vector surveillance activities carried out in NCDC Campus also.

Towards Capacity Building, a curriculum for 2 years MPH (Medical Entomology & Vector Management) and one year Post Graduate Advanced

Diploma in Public Health Entomology have been prepared. The course is likely to be commence from the academic year 2017–18. The ongoing research project is for the development of a protocol for entomological surveillance and for detection of early warning signals for Dengue outbreak in Delhi.

I. Division of Malariology & Coordination:

Targets:

- To provide technical support for outbreak investigations, conduct operational research and trained manpower development in the field of malarial diseases and their control in the country.
- Diagnostic support is provided to state Governments for laboratory diagnosis of malaria infection.
- Coordination & conduct of the short term orientation/training visits & conference etc. of under and post graduate medical, nursing and homeopathic students & other professionals
- Contribute academically/ technically in various meetings, seminars, and symposium and review meetings/missions when invited as participant

Achievements of the Division: A total of 1226 (From 1st April, 2016 to November 2016) blood slides were examined and 64 were found positive (Pv -61, Pf -03 and Pm -0). 962 slides were received from Government hospitals and 247 from private hospitals. 17 slides were received from NCR (Ghaziabad, Sonapat, Bagpat, Uttarpradesh, Haryana and Faridabad)

The division extends regular short term orientation/training to the visiting under and postgraduate medical, nursing and homeopathic students. 318 students from different institutes viz: Hospitals, Veterinary Army officers, MBBS Students of Army, Medical officers of AFMC, Senior Medical officers of BSF, MD (CHA) & DHA Final Year students, M.Phil, MPH and Ph.D students, Nursing students from various Nursing Institutions, Post Graduate students of Community medicine of Medical Colleges, CGHS & CHS Officers, BHMS students and DNB were given short term training

J. Statistical Monitoring & Evaluation Cell:

The Cell provides professional statistical support to the various Divisions of NCDC.

Since 2005 NCDC is offering a 2 years Master in Public Health (MPH (FE)) course in affiliation with GGSIPU, Delhi. Total annual intake for the course is currently 20 seats.

16.12.2 Other activities at NCDC:

Upgradation of National Centre for Disease Control, Delhi:

The proposal for upgradation of NCDC was approved with a total cost estimates of Rs.382.41 crores for construction of civil and services work (Rs. 326.19 crores), procurement of equipments/machinery with latest technology (Rs. 47.00 crores) and for creation of additional posts (Rs. 9.22 crores). 103 new Scientific & Technical posts and 11 administrative posts have also been created under upgradation of NCDC. The Hon'ble HFM inaugurated the newly constructed buildings of the Administrative Block, Type II Residential Complex and Epidemiology & Disease Control Complex on 30.9.2016.

Establishment of 30 Branches (including 8 existing branches) of NCDC in all States and 1 UT.

Under 12th five year plan, the "Strengthening of existing branches and establishment of 27 branches of NCDC" was approved with a total outlay of Rs.400.00 Crore. A SFC for "Establishment of 30 branches (including 8 existing branches) of NCDC in all States and one UT" for a total cost of Rs.367.60

crore was approved on 24.04.2015. The State Governments of Himachal Pradesh, Gujarat, Uttarakhand, West Bengal, Arunachal Pradesh, Maharashtra, Mizoram, Chhattisgarh, Nagaland and Jharkhand have agreed to provide land/building to NCDC. The proposal for creation of 601 Posts has also been submitted for approval.

16.13 CENTRAL RESEARCH INSTITUTE (CRI), KASAUJI

The Institute was established on 3rd May, 1905 as Pasteur Institute for North India. It is a subordinate office of Directorate General of Health Services, under the Ministry of Health & F.W. of India. The Institute has a huge complex which is divided in seven sub-sections i.e. Establishment, Academic, Auxiliary Facilities, Production Division, Quality Control Division, Animal House and Research & Surveillance Division. It has a network of large number of laboratories engaged in manufacturing of vaccines/sera and research activities.

Present Activities

(i) Bacterial and Viral Vaccines & Sera on large scale
(ii) Production & Supply of diagnostic reagents. (iii) Research and Development in the field of Immunology and Vaccinology (iv) Teaching and Training in Vaccinology and Microbiology.

Manufacturing and Supply of Vaccines and Anti-sera:

During the year, (2016-17) (up to 31/10/2016) the Institute has supplied different life saving product i.e. Sera & Vaccine manufactured in the Institute as follows:

Sl. No.	Name of Vaccine	Production 01.04.2016 to 31.10.2016	Supply 01.04.2016 to 31.10.2016	Demand 01.04.2016. to 31.04.2016
1	2	3	4	5
1	DPT(Doses) (UIP)		17,98,610*	18,17000
2	DT (Doses)	--	---	--
3	TT (Doses) (UIP) TT (Doses) (Non -UIP)	400	36,00,000 46,200	88,00,000 69,900
4	Yellow Fever VACCINE (Doses)	1,67,400*	1,08,502	1,13,467
5	ARS (Vials)	16,570	8,975	46,025
6	ASVS (LYo)(Vials)	-	-	-
7	ASVS (Liq)(Vials)	1,071	622	1,852
8	DATS (LYO)(Vials)	-	-	-
9	DATS (Liq)(Vials)	2,110	2,142	7,442
10	NHS (Vials)	51	22	18
11	DIAG. AG. (ML)	20,250	14,000	28,250

*imported through WHO.

In addition to manufacturing of vaccines and antisera, the institute is also engaged in a large number of other activities such as National Salmonella and Escherichia Coli Centre, National influenza surveillance centre, Rabies research centre, National Polio Laboratory for Surveillance; Experimental animal house and Medical treatment centre & diagnostic laboratory.

16.14 NATIONAL INSTITUTE OF BIOLOGICALS (NIB), NOIDA

One of the main functions of the NIB is to undertake research, establish linkages and exchange personnel with different institutions in India and abroad for furtherance of its mandate. Other subjects forming part of its mandate are (i) developing and validating

standards for quality control testing; (ii) developing linkages with other National / International institutions and keeping abreast with worldwide scientific research and technological developments; (iii) providing training facilities in quality control of biologicals; (iv) assessing from time to time, the availability of qualified manpower; and (v) implementing and co-ordinating activities of Haemovigilance Programme of India.

NIB has constituted 19 Expert Committees to strengthen scientific activities and technical knowledge in the Quality Control of Biologicals and Biotherapeutics. These Committees also advise in the capacity building initiatives, infrastructure expansion and developing linkages with other scientific institutions to cope up with the regulatory

challenges posed by the advent of newer biological products and bio-therapeutic with increasing complexities. These are working in areas such as Diagnostics, Therapeutics, Allergens, Ethics, Equipment specification, Research & Development, and Haemo-vigilance programme of India.

The National Institute of Biologicals is the National Coordinating Centre (NCC) for the Haemo-vigilance Programme of India (HvPI), at the national level. The aim of this programme is to track Adverse Reactions associated with Blood Transfusion and Blood Donation.

16.15 BCG VACCINE LABORATORY, GUINDY

The BCG Vaccine Laboratory, Guindy, Chennai was established in 1948. The major activities of the Institute are: production of BCG Vaccine (10 doses per vial) for control of childhood Tuberculosis and supply to Expanded Programme of Immunization (EPI); and production of BCG Therapeutic (40 mg.) for use in Chemotherapy of Carcinoma Urinary Bladder.

16.15.1 Performance of Laboratory at Present:

- The facility was revived with a cost of Rs.64.72 crore cGMP as cGMP compliant and carried out cleaning activities.
 - Manufacturing activities started for trial batches from 12.8.2016, after drug licence received from concerned authorities for trial batches.
 - Renewal of registration of Animal House approved w.c.f. 08.08.2016 for further period of 5 years by CPCSEA, New Delhi.
 - Undertaken water system validation and facility validation
 - Seed revival and propagation of culture for trial batches carried out.
 - Internal training on cGMP standards, documentation, SOP is being imparted to BCGVL staff. Documentation is required and for cGMP compliance is being undertaken and is at advance stage of competition.
- The new cGMP compliant has installed capacity of 500 lakh doses of BCG Vaccine.

16.15.2 Significant Achievements:

After validation of new facility, trial batches of BCG Vaccine and process validation is being carried out, followed by regular production of BCG Vaccine as per cGMP, after getting commercial licence.

16.16 PASTEUR INSTITUTE OF INDIA (PII) COONOR

Pasteur Institute of India, Coonoor has been primarily involved in the production and supply of DPT group of vaccine to UIP and Anti Rabies Vaccine.

Present Activities

1. Establishment of GMP facility for manufacturing DPT group of vaccines.
2. Anti-Rabies Clinic to cater the need of the general public.
3. Rabies Diagnostic Laboratory
4. Research and Development activities.
5. Academic activities.
6. Breeding of Mice and Guinea pigs.

Establishment of Green Field Manufacturing GMP (Good Manufacturing Practices) Facilities for Production of DPT Vaccine

- The Civil work of the Green Field GMP facility for manufacturing DPT group of vaccines at PIIC is ready. HLL Lifecare Ltd., Trivandrum is the Project Consultant. Proposed annual supply from the new facility will be: DPT – 60 million doses, TT – 55 million doses and DT – 15 million doses (total – 130 million doses).
- Animal breeding being continued for the testing product developed and for Ph.D and post Graduate student programme work. As on 31.10.2016, 1066 nos. of Mice and 50 nos. of Guinea pigs are in stock of the Lab. Animal Division.

Rabies Treatment Clinic

This clinic offers 24 hours services for rabies vaccination of Rabies bite cases. About 720 patients attended the centre as on 31.10.2016 for Anti Rabies treatment and Tissue Culture Anti Rabies vaccine was administered.

Rabies Diagnosis LAB

Blood samples, both from Human and domestic animals are received for the detection and quantification of Anti Rabies Neutralizing antibodies. About 102 serum samples were received for quantification of rabies neutralizing antibody testing as on 31.10.2016 to assess post-vaccination sera conversion for the protection against rabies infection.

Academic Activities

The Institute has a well stocked library with 4259 books and 12737 bound volumes, 7 International journals, 11 Indian Journals and WHO publication. 10 scholars registered in Ph.D. program, affiliated to Bharathiar University, Coimbatore in the faculties of Biotechnology, Microbiology and Biochemistry under 4 guides. One day Industrial visit for students of different Colleges and Universities are organized to enrich their scientific knowledge and to create awareness in vaccine production; immunization procedures, etc. In addition to this, one week - in plant training and 3 months projects are also carried out for the college students. As on 31.10.2016, 48 batches of students from different colleges have visited this Institute for Industrial visit.

Research & Development Activities

- Different laboratories are involved in the R&D activities concerned with their process development. R & D activities are involved in Ph.D. studies.
- R& D lab is strengthened with analytical and molecular biological instruments. Bioreactors are utilized to standardize tissue culture based viral vaccines production.
- Molecular tools for research works related to newer development in vaccines, characterization of vaccine strains, rabies diagnostic testing, etc. are available.

Rabies Awareness Activities

On World Rabies Day, an awareness rally on Rabies and its prevention was organized on 28th Sep. 2016 followed by drawing, essay writing competitions and quiz competition were organized for school children.

16.17 INSTITUTE OF SEROLOGY, KOLKATA

The Institute established in 1912 as imperial Serologist's Department, is sole manufacturer & supplier of VDRL Antigen, Antisera against animal species including human & Anti- H Lectin to Govt. Medical Institutions & State & Central Forensic Laboratories all over India. Regional STD Reference Laboratory for East Zone under NACO has been functioning from 1983 which helps WBSACS for diagnosis of STD and Training of Laboratory Technicians of ICTC of West Bengal in various fields of serology and Sexually Transmitted Diseases. The V. D. Serology Section provides service in determining syphilis to Govt. Medical Colleges & Hospitals of Kolkata. National Measles Laboratory for detection of Measles from Eastern and part of Jharkhand, Bihar. Isolation of Polio Virus from stool samples of AFP cases from Eastern & NE Region and part of Bihar, Jharkhand by National Polio Laboratory under the WHO and NPSP. Isolation of Polio virus from environmental samples (sewage water) from some municipal corporation areas in Kolkata is being done for surveillance and intratypic differentiation of Polio Virus by ITD Laboratory using PCR technique.

16.17.1 Activities:

- In VD Serology Section 1758 Nos. blood samples were tested for syphilis.
- In Forensic Serology Section 2416 Nos. exhibits were tested for species origin and group determination.
- In BGRC Section 1400 mls. Anti H Lectin was produced and supplied to different Forensic Laboratories.
- In Antibody Production Section 2473 mls. of antisera were produced and 1709 mls. supplied to different State & Central Forensic Science Laboratories.

- 576 Nos. of samples were received and tested for Measles and Rubella.
- 38 Lots. of Cases were received and tested.
- 10375 Nos. stool samples were tested for NPV and VDPV and 121 Nos. samples tested for environmental surveillance.
- VDRL Antigen Production unit produced 1458 mls. antigen and supplied 1855 mls. Antigen to different hospitals and STD Clinics throughout India.
- 12,500 Nos. of tests were done for diagnosis of different types of STIs from STI Clinics of Medical Colleges of Kolkata.

16.18 INTERNATIONAL INSTITUTE FOR POPULATION SCIENCES (IIPS), MUMBAI

Established in 1956, the International Institute for Population Sciences (IIPS), Mumbai was declared as a 'Deemed University' in 1985

16.18.1 Teaching

During the year 2015-16, the Institute offered the following regular courses: (a) Diploma in Health Promotion Education (D.H.P.E.), (b) Master of Arts/Science in Population Studies (M.A./M.Sc.), (c) Post Graduate Diploma in Community Health Care, (d) Master of Science in Biostatistics and Demography (M.Sc.) (e) Master of Population Studies (M.P.S.), (f) Master of Philosophy in Population Studies (M.Phil.) and (g) Doctor of Philosophy in Population Studies (Ph.D.). Apart from these programmes, the Institute also offers Master of Population Studies (M.P.S.) and Diploma in Population Studies (D.P.S.) through distance learning.

During 2015-16, 23 students qualified for award of Diploma in Health Promotion Education, 29 students qualified for award of degree in Master of Arts/Science in Population Studies, 11 students qualified for award of Master of Science in Biostatistics & Epidemiology, 36 students qualified for award of degree in Master of Population Studies,

25 students qualified for the award of degree in Master of Philosophy in Population Studies, 1 student qualified Master of Philosophy in Biostatistics and Epidemiology, 11 students had qualified for the award of Doctor of Philosophy in Population Studies, 26 students qualified for award of degree in Master of Population Studies (Distance Learning) and 1 student had qualified for the award of Diploma in Population Studies (Distance Learning).

16.18.2 Research and Publications

Institute conducts research programme using its own resources and also through external funding. The externally funded projects are usually initiated at the request of the concerned agencies. The completed and ongoing projects at the Institute are given below.

A. Research Projects Funded by the Institute

(i) Continuing Projects

- Population Scenario in India: Long Term Prospective.
- Magnitude, Causes and Consequences of Kala-azar in India: A Study of Eastern Bihar.
- Use of verbal autopsy for Assessing the Causes of Death in Amravati district of Maharashtra.
- Estimation of Vital Rates for Mumbai Presidency in the Colonial Period.
- Changes in House hold Amenities and Assets in India : A Census Based Study.
- Follow-up of Comprehensive Nutrition Survey in Maharashtra Amravati and Nasik Divisions.
- Historical Trends and Patterns of Population and Development in India: A District Level Analysis.

(ii) New Projects

- Causes and Consequences of Out-Migration from Middle Ganga Plain.
- Health Infrastructure and MCH Care in the Rural Areas of India.

- Indirect Study of Survival from a Disease: An Empirical Evaluation Modification and Application of Methodological Developments.
- Post Assessment of Malnourished Children in Amravati, Aurangabad and Nashik Divisions Surveyed Under CNSM Project in 2012 (Follow up CNSM)

16.18.3 Research Projects Funded by External Agencies

a) Continuing Projects

- Longitudinal Aging Study in India (LASI) Main Wave (2014-19)
- Study of Global Ageing and Adult Health (SAGE)-India, Wave-2, 2014-16
- Family Health and Wealth Study (FHWS)
- Enhancing Capacity to Apply Research Evidence in Policy Making
- National Family Health Survey-4
- Unintended Pregnancies and Abortion in India (UPAI)
- Population Environment and Settlement (Pop-ENVIS)
- Impact Assessment of Dumping Ground Fire on Health : A Case Study in Mumbai
- Comprehensive Nutrition Survey in Gujarat.
- Counting Women's Work

16.18.4 Publication Unit: IIPS has a well established publication unit. Periodically IIPS publishes Newsletters, Research Briefs and Working papers.

16.18.5 Library

The International Institute for Population Sciences library has a collection of resources taking into consideration the course contents and

research needs of the Institute. It holds about 84,2 books, 16,450 bound volumes of periodicals, 16,533 Reprints and 620 audio-visual materials and subscribes to over 300 journals, more than 75 journals received in the library by the way of gift and exchange. More than 25,500 research articles from the core journals and edited books have been indexed and made available through OPAC.

16.18.6 Major Events

The National Seminar on “Population and Development: Issues and Challenges in 21st Century” was held in Nagpur, organized by the Institute during 18-19 March, 2016.

16.19 MAHATMA GANDHI INSTITUTE OF MEDICAL SCIENCES (MGIMS), SEVAGRAM MAHARASHTRA

The Mahatma Gandhi Institute of Medical Sciences (MGIMS), Sevagram, Wardha established in the year 1969 is the first Medical College in the country located in rural surroundings and administered by Kasturba Health Society.

As regards funding pattern of the Institute, the annual recurring expenditure is shared by the Government of India, Government of Maharashtra and the Kasturba Health Society in the ratio of 50:25:25 respectively. The Government of India released Grants-in-Aid of Rs. 55 crore to meet recurring expenditure and Rs. 5.00 crore for creation of capital assets to meet the non-recurring expenditure of the Institute during the financial year 2015-16.

The Hospital attached to the Institute comprises 690 teaching beds 100 service beds and 32 private rooms. The Hospital provides 62 beds in different intensive care units (ICU) for critically ill patients. The Institute also runs 50 bedded Dr. Sushila Nayar Hospital, in the tribal area of Utawali, in Melghat in Amravati District. In 2015-16, 826808 patients attended the hospital as outpatients and 47304 patients were admitted for various ailments.

MGIMS has established a modern simulation lab to train doctors and paramedical staff in life saving skills. The project called by the acronym MIST, which stands for MGIMS Institute for Simulation

Based Training. The project funded by KHS, has already procured mannequins to teach participants CPR, AHA accredited basic life support skills (BLS) and advanced cardiovascular life support skills (ACLS) courses, which are in line with the latest 2015 training guidelines of the American Heart Association (AHA).

Kasturba Hospital introduced No-Q Card, as the name suggests, is a card which seeks to minimize long hours of waiting in queues and thus help patients enjoy a hassle-free experience at Kasturba hospital. No-Q Card is a unique ATM-like card (with pre-deposited cash) that can be easily and effectively used at various counters across the hospital to save time. On an average, the No-Q card helps patients save 90 minutes whenever they revisit the hospital, get tested and buy drugs. The card has been designed to provide patients efficiency, security and flexibility of digital payments.

MGIMS launched Alcohol and Tobacco Awareness Activity through its White Coat Army of undergraduate medical students of 2012, 2013 and 2014 batch of MGIMS which conducts campaigns to spread awareness about the hazards of alcohol and tobacco.

The Department of Radiology bought a state of the art ultrasound machine, Affinity 70, in March 2016 that makes imaging technically difficult patients easy. The machine facilitates imaging of a wide range of patient types with few artifacts and enhanced penetration. Elastography, a key function of the machine can help detect fibrosis in patients presenting with liver diseases, with an impressive diagnostic accuracy.

The Institute has consistently implemented community-based programmes to enhance health care services. The Department of Community Medicines of the Institute has adopted three primary health centers and developed a model of decentralized healthcare delivery at village level through Community-Based Organization and the Panchyati Raj Institutions. It has formed 275 Self-Help Groups (SHG), 10 Kisan Vikas Manch and 89 Kishori Panchayats in the adopted villages. Through, innovative strategies, family life education are provided to adolescent girls in all the programme villages.

16.20 CENTRAL BUREAU OF HEALTH INTELLIGENCE (CBHI)

16.20.1 Introduction

Central Bureau of Health Intelligence (CBHI), established in 1961, is the Health Intelligence wing of the Director General of Health Services in the Ministry of Health & FW, GOI with the vision to have "A strong Health Management Information System in entire country". CBHI has three divisions viz. (i) Policy, Training and Co-ordination, (ii) Information & Evaluation, and (iii) Administration. It also consists of six Health Information Field Survey Units (FSUs) at Bengaluru, Bhopal, Bhubaneswar, Jaipur, Lucknow & Patna and Regional Health Statistics Training Centre (RHSTC) of CBHI at Mohali, Punjab.

16.20.2 The Objectives of CBHI are:

- i. To collect, analyze & disseminate health sector related data of the country for evidence based policy decisions, planning and research activities;
- ii. To identify & disseminate innovative practices for health sector reforms;
- iii. To develop human resource for scientifically maintaining medical records in both Government & private medical institutes in India;
- iv. To carry out need based operational research for efficient implementation of Health Information System & use of Family of International Classifications in India;
- v. To sensitize & create a pool of master trainers in health sector for implementation of Family of International Classification in India;
- vi. To collaborate with National & International Institutes for imparting knowledge & skill development;
- vii. To Collect & disseminate indicators for health related Sustainable Development Goals;
- viii. To function as collaborating centre for WHO-FIC in India & SEARO countries.

16.20.3 Activities under taken by CBHI:

- CBHI collects primary as well as secondary data on various communicable and non-communicable diseases, human resource in health sector and health infrastructure from various Government organizations/ departments to maintain and disseminate Health Statistics through its annual publication “National Health Profile” which highlights most of the relevant health information under 6 major indicators viz. Demographic, Socio-economic, Health Status, Health Finance, Health Infrastructure and Human Resources.
- CBHI collects the information on reform initiatives for Health Sector Policy Reform

Option Database (HS-PROD). [www.hsprodindia.nic.in]. It is a web-enabled database that documents and further creates a platform for sharing of information on good practices, innovations in health services management while also highlighting their failures that are very important for the success of NRHM.

- For capacity building and human resources development in health sector, CBHI conducts in-service training programme for the officers and the staff working in various Medical Record Department & health institutions of the Central/State governments, ESI, Defence and Railways as well as private health institutions through its various training centres. Following are the in-service training conducted:

Sl. No.	Name of the Training	Batch	Duration	Training Centre
1	Medical Record Officer	2 (at each training centre)	1 Year	1. Medical Record Dept. & T.C at Safdarjang Hospital in New Delhi. 2. JIPMER, Puducherry
2	Medical Record Technician	4 (at each Training centre)	6 Months	1. Medical Record Dept. & T.C at Safdarjang Hospital in New Delhi. 2. JIPMER, Puducherry

- CBHI Provides Internship and Health Management Programmes for the students of National Universities and Institutes.
- CBHI publishes a concise information/data on Goal 3 of Sustainable Development Goal (SDG) i.e. Maternal Mortality Ratio, Proportion of births attended by skilled personnel, Under Five Mortality Rate (per 1000 live Birth), Infant Mortality Rate (per 1000 live birth), TB incidence per 1000 persons per year, Malaria incident cases per 1000 persons per year and Health workers density and distribution in its annual publication “National Health Profile”.
- Function as WHO Collaborating Centre on Family of International Classifications (ICD – 10 & ICF) in India with the following major objectives:-
 - To promote the development & use of the WHO

Family of International Classifications (WHO-FIC) including the International Statistical Classification of Diseases and Related Health Problems (ICD), the International Classification of Functioning, Disability and Health (ICF), and other derived and related classifications and to contribute to their implementation and improvement in the light of the empirical experience by multiple parties as a common language.

- ✓ Contribute to the development of methodologies for the use of the WHO-FIC to facilitate the measurement of health states, interventions and outcomes on a sufficiently consistent and reliable basis to permit comparisons within and between countries at the same point in time by:
- ✓ Supporting the work of the various committees

and work groups established to assist WHO in the development, testing, implementation, use, improvement, updating and revision of the member components of the WHO-FIC.

- ✓ Participating in the quality assurance □ procedures of the WHO-FIC classifications regarding norms of use, training, data collection and application rules.
- Networking with current and potential users of the WHO-FIC and act as reference centre by:
 - ✓ Assisting WHO Headquarters and the Regional Offices in the preparation of member components of the WHO-FIC and other relevant materials. Participating actively in updating and revising the member components of the WHO-FIC.
 - ✓ Providing support to existing and potential users of the WHO-FIC and of the data derived in India and SEARO region. Linkage will also be made with other countries of Asian Pacific Region for seeking status on FIC implementation.
 - Work in at least one related and/or derived area of the WHO-FIC: Specialty based adaptations, primary care adaptations, interventions/procedures, injury classification (ICECI).
 - National Health Resource Repository (NHRR) project: CBHI is developing the methodology and tools for data collection under NHRR project which would be launched nationwide soon with the aim to create a web-based and geo-mapping enabled single platform of all the health resources both government and private which inter-alia includes, hospitals, diagnostic labs, doctors and pharmacies, etc. and will comprise the data on health infrastructure, human resource (mainly specialized doctors) and the availability of medical facilities in each health establishment in the country. The NHRR project has been approved by the Ministry with estimated cost of Rs. 99.46 Crores.

Before the nationwide rollout of the project, a WHO sponsored pilot study will be undertaken in the current Financial Year under the aegis of CBHI with an estimated cost of Rs. 94 Lakh (approx.) so as to test

and validate the methodology and data collection tools developed for the project.

16.21 CENTRAL HEALTH EDUCATION BUREAU (CHEB)

The mandate of CHEB is to plan and formulate programmes for the promotion of Health Education in the country; conduct behavioural research in the field of Health Education; provide training to health professionals and school teachers and to produce various kinds of printed, electronic and mass media material for creating health awareness.

16.21.1 Major achievements during 2016-17

The Health Magazine: “Healthy India Initiative” Central Health Education Bureau has published first ever quarterly Health Magazine from Ministry of Health & Family Welfare titled “Healthy India Initiative” in Hindi & English. The Hon’ble Prime Minister of India, Shri Narendra Modi has extended his best wishes for success of the magazine and has expressed his confidence that the magazine will provide authentic health related information to common man. The magazine was released by the Hon’ble Union Minister for Health & Family Welfare, Shri Jagat Prakash Nadda. The January, 2017 issue of the magazine will be published in the thirteen Indian regional languages in addition to Hindi & English. It has circulation across all the States and UT’s of India. “e-Healthy India initiative” has also been launched and is hoisted at CHEB website <http://cheb.nic.in/>.



Health Magazine: “Healthy India Initiative” released by the Hon’ble Union Minister for Health & Family Welfare, Shri Jagat Prakash Nadda

- CHEB prepares material about all 'National Health Days' and develops twitter messages for these occasions.
- CHEB participated in India International Trade Fair-2016 from 14th to 27th November, 2016 at Health Pavilion of Ministry showcasing the telemedicine consultation for health education, preventive health and curative health. Copies of 'Healthy India initiative' the health magazine were also distributed to the general public which was well appreciated.
- The Bureau conducted fifteen orientation training sessions sensitizing 626 students from Medical/Nursing Colleges/ ANM Training Centres from different parts of country about generation of health awareness through Health Education & Health Promotion.
- CHEB developed the draft of Risk Communication plan and communication strategy for Zika Virus disease, Yellow fever for emergency preparedness in coordination with ICMR WHO, UNICEF etc.
- The Bureau also provided technical support to National Centre for Disease control in developing the IEC materials on Vector Borne Diseases, Vector Prevention Measures, Zika Disease, Yellow Fever, Crimean Congo Hemorrhagic Fever, Kaysanur Forest Disease.
- CHEB has facilitated development of IEC plan of National Iodine Deficiency Disorders Control Programme and Revised National Tuberculosis Control Programme for the year 2016-17. Campaign on Diabetes Mellitus and Hypertension through Digital Cinema Screen display in State of Bihar has been created by CHEB.

16.22 REGIONAL OFFICE OF THE HEALTH AND FAMILY WELFARE, NEW DELHI

There are 19 Regional Offices of Health & Family Welfare functioning under the Directorate General of Health Services, located in the various State Capitals. The essential units of the ROH&FWs are (i) Malaria Operation Field Research Scheme (MOFRS), (ii)

Entomological Section (iii) VBDC Section (iv) Health Information Field Units (HIFU) and (v) Regional Evaluation Teams (RETs)

16.22.1 Roles and Responsibilities:

- Liason of Centre-State activities for implementation of National Health Programmes.
- Cross-checking of the quality of the malaria work, running free malaria clinic in the office premises and review/analysis of the technical reports related to National Vector Borne Disease Control Programme (NVBDCP).
- Checking of the records in respect of beneficiaries of Family Welfare services and other registers maintained during filed visits, and provide feedback related to Family Welfare programme activities.
- Organizing training for laboratory technicians, medical and para-medical staff as well as other categories of staff on orientation on various National Health Programmes.
- Specified responsibilities are undertaken by Regional Evaluation Team (RET), Health Information Field Unit (HIFU) and Malaria Operation Filed Research Scheme (MOFRS).
- Monitoring and Supervision of Centrally sponsored schemes

16.22.2 Performance of Technical Activities:

The Activities under taken by ROHFW for the year 2016-17 (till September, 2016) are as below:-

- 183 Review meetings were held with State Programme Officers to review the implementation of National Health Programmes.
- Implementation of National Health Programmes was reviewed by field visits to districts & sub-district level health facilities.
- Officers from ROHFW participated in 152 National and 321 State level meetings.
- 94 training programmes were organized in which

1924 participants were imparted training in malaria microscopy, ICD-10 and other activities.

- 6 drug resistance studies, 56 entomological survey and 27 evaluation studies were undertaken by MOFRS, RET and CBHI teams.
- 301040 peripheral smears were cross examined for malaria. Of them, 1245 slides were found with discrepancies. Feedback was given to concerning health care facility and corrective action was taken.

16.23 NATIONAL MEDICAL LIBRARY (NML), NEW DELHI

16.23.1 Introduction

National Medical Library (NML) provides valuable

library information services/assistance to support the academic, research and clinical work of health science professionals in the country. It occupies important place in health care information delivery system in the country. Some of the valuable services provided by NML are:

- The library remains open 359 days of the year. Over 100 persons visit the library every day for reference and consultation obtaining photocopies of required articles as well as for information retrieval service.
- In this reporting year, NML has taken initiative to implement the Digital India campaign of Government of India and as a mission NML is committed to convert it from a traditional Library to Digital Library and connectivity to all States Medical Libraries.

Traditional	Digital	Achievements
Journals	ERMED Consortium (www.erved.in)	243 e -journals in 25 states to 70 Medical Institutes
Issue and Return	Computerised with bar code	Completed
Membership	Computerised	Completed
Catalogue	Computerised (OPAC)	65,000 Books (Work under process)
Library Security	Electromagnetic Security System	Installed & Functional

16.23.2 Digital Library Services

(a) Online Public Access Catalogue (OPAC):- In order to facilitate the medical professional visiting NML, retrospective conversion of 65,000 Books has been completed with Bar Code.

(b) Document Delivery System (Print and Electronic): A large number of requests for photocopy of articles were received from outside Delhi by post, e-mail and fax through Government as well as private photocopy counters. Photocopies of 33872 copies

(approx.) during the period were provided to medical research scholars across the country. No postal charges were taken for delivery of articles outside Delhi. Library also sent over 2000 sets of Periodicals for binding job to outsourced binding contractor and has also got repaired 1500 Books / Journals by the binding staff in house during the period

(c) Database of Theses: Bibliographic Database of Doctoral Thesis and Dissertation submitted to Medical Colleges/Institutes compiled by National Medical Library. (www.erved.in)

(d) Current Awareness Services (CAS): Current Literature in Health Sciences (CLHS) is a current Awareness Service compiled by National Medical Library, DGHS every month. It provides bibliographic details of the articles pertaining to new medical research and new techniques in Health Sciences journals, those subscribed by NML. CLHS covers mostly broad subject headings in the field of Health Sciences (www.erned.in).

(e) Newspaper clipping service: To keep the users abreast of latest news relevant to the medical science (www.erned.in).

16.23.3 Branch Library

National Medical Library maintains a branch library in Nirman Bhawan to cater to the library and information needs of staff and officers in the Directorate General of Health Services and the Ministry of Health and Family Welfare for reading purpose.

16.24 RURAL HEALTH TRAINING CENTRE, NAJAFGARH, NEW DELHI

Rural Health Training Centre, Najafgarh, New Delhi was set up as health unit in 1937 with the financial support and guidance of Rockefeller Foundation at Najafgarh to cover an area of about 162 sq. miles having a population of 44,000 scattered over 35 villages for rendering primary health care services through dispensary and team of Para-medical staff. Rural Health Training Centre, Najafgarh, PHCs of Najafgarh, Palam and Ujwa and 16 sub centres is spread over an area of 432.6 kms covering 73 villages. The Major Activities of RHTC Najafgarh are as follows:

1. Training

- Training to Medical Interns under ROME Scheme. Around 350 unpaid Medical Interns undergone rural posting from this Centre.
- Training to ANM 10+2 (Voc.) Students with intake capacity of 40 students per academic session.
- Community Health Nursing Training to

BSc/MSc/GNM students of various Nursing Institutions like College of Nursing, Safdarjung Hospital, RML Hospital, Lady Hardinge Medical College, Holy Family Hospital, Batra Hospital, Apollo Hospital and various other Govt./State Govt./Pvt. Institutions. Nearly 1000 trainees were trained during the period.

- Promotional Training to Nursing Personnel.
 - One Day Observation Visit.
2. **Delivery of Health Services:** Providing primary health care, preventive, promotive and curative services to the low socio-economic group of people of 64 villages and 9 town of Najafgarh area through its three Primary Health Centres and 16 Sub-Centres including 24x7 Emergency Services in PHC Najafgarh.
 3. **Field Studies:** Conducts field studies aspects of Health & Family Welfare, RCH, Nutrition, Health Education and Communicable Diseases and also provides field services for research work to the various health institutions, i.e. NIHAJ, AIIMS in public health.

The following programmes were organized by RHTC Najafgarh.

RCH Camps: Two RCH camps were organized under PHC Najafgarh in Gopal Nagar and Qutab Vihar. For making vast publicity of the camps, pamphlets, banners were printed and distributed via Newspapers. Following services were provided by RHTC Najafgarh in the RCH Camps: (i) General OPD (ii) Antenatal care including immunization (iii) Immunisation to the children below five years of age (iv) Family Planning Services (v) Female Genital Tract Diseases (vi) Contraceptive Counseling (vii) Laboratory Investigations (viii) Drug/Medicine distribution to the patients (ix) Specialist services of Dental, Ophthalmology and Paediatrics.

Village Health Nutrition Days: Village Health Nutrition Days were organized in different sub-centres under PHC Najafgarh and PHC Ujwa. VHNDs were organized with the help of Anganwari workers at Sub-centre level. Key services provided by RHTC Najafgarh in the VHND: (i) Maternal

Health check-up, (ii) Check-up of infant upto 1 year, Children aged 1-3 yrs. and all children below 5 yrs. (iii) Family Planning, RTI/STDs, (iv) Sanitation (v) Communicable Disease (vi) Health Promotion (vii) special emphasis on Nutritional Demonstration-Diseases due to malnutrition and its precaution (viii) Hygienic & correct cooking practice (ix) weighing of infants & children and (x) Importance of nutritional supplement. Nutritious food items also demonstrated to the community keeping in view the above points. So far 21 VHND camps have been organized.

Janani Suraksha Yojana: Janani Suraksha Yojana has already been implemented in PHC Najafgarh. Rs. 600/- are earmarked to be paid to all the eligible deliveries, which are conducted at this centre. The criteria for which is (i) The age of the lady should not be below 19 yrs. of age, (ii) The lady should belong to SC/ST/BPL family upto two children only, (iii) Necessary certificate of Local Leader/MLC/ MLA confirming the residential address is required to be submitted and (iv) The lady should have visited the PHC for regular check-up for at least three times.

Well Baby Show: Well Baby Show organized in PHC Najafgarh during the Immunization Week celebrated and children were checked for immunization, height-weight and their IQ were also judged. The main motive of the show was to educate the parents regarding the immunization and nutritional food.

Upgradation of OT: Operation Theatre of this centre has been made fully air conditioned with the financial assistance of GNCT under NRHM.

Strengthening of ANM Training School: ANM Training School has been strengthened with the construction of two lecture halls in ANM School and construction of three rooms and attached toilets in hostel. The funds were released by CDMO (SW) Govt. of NCT Delhi under NRIIM.

Future Vision and Mission: Funds already released by the union government and the project is likely to start in the current year for construction and developing this centre to that of National Institute of Allied Health Services.

16.25 LADY READING HEALTH SCHOOL, DELHI

Lady Reading Health School, Delhi is considered as one of the pioneer institutions and first of its kind for training Health Visitors. It was established in 1918 under the Countess of Dufferin Fund for training Nursing personnel for M.C.H. service program. In 1931 it came under the administrative control of the Indian Red Cross Society (Maternity & Child Welfare Bureau). In 1952 the Government of India took over the school and attached Ram Chand Lohia MCH Centre to it. Total capacity of the school was 24 Health Visitor trainees from all over India, even these candidates were not available at that time. Duration of the course was one and a half year for matriculates who were qualified midwives, which was replaced by two and half years integrated course for health visitor in 1954.

The School aims at providing training facilities to various categories of Nursing Personal in community health as well as M.C.H. and family welfare services through the attached Ram Chand Lohia MCH and Family Welfare Centre.

The Institution is imparting the following courses at present

(i) **Auxiliary Nurse-Cum-Midwife Course:** This course is under Indian Nursing Council and eligibility criteria for the course is 12th pass. 38 students completed their training in August, 2016. This year 40 students have been admitted for session 2016-18. Total number of students are 80 i.e. 40 students for 2016-18 and 2015-17.

(ii) **Certificate Course for Health Workers (Female) under multipurpose workers scheme:** This course is of six months duration. Students are admitted twice a year i.e. in January and July every year with admission capacity of 20 in each batch. 35 students were selected for January, 2016 batch and completed their training in June, 2016. 26 candidates were selected for July, 2016 to December, 2016 batch.

(iii) **Post Basic B.Sc (Nursing):** Administrative approval of the Ministry has been granted for conducting post basic B.Sc (Nursing) at this institution.

16.25.1 Clinical Experience

The students are sent for their clinical experience in Rural and Urban Health Centre, different Hospitals like Safdarjung Hospital, RML Hospital, Lady Hardinge Medical College and Kalawati Saran Children's Hospital in New Delhi.

16.25.2 Ram Chand Lohia MCH and Family Welfare Centre

Students are also posted for urban health experience through Ram Chand Lohia MCH and Family Welfare Centre. The Centre gives integrated MCH Family Welfare Services to over 45,000 population. Weekly clinics are conducted like Antenatal Care, Post Natal Care, Well Baby Immunization, Family Planning Clinics, door to door services are also imparted to the community by the students. Exhibition and Health education are also organized in the community by MCH centre through students & staff.

16.25.3 Other Activities

Health Education Programme is organized in the school, centre as well as in the community. Regular SNA activities are also undertaken.

16.26 HOSPITAL SERVICES CONSULTANCY CORPORATION (INDIA) LIMITED, NOIDA

Established in 1983 in Delhi, now a Mini Ratna-1 Public Sector Enterprises of Government of India, HSCC is a multi-disciplinary renowned project executing and procurement management service organization in the health care and other social infrastructure development sectors. Its scope of work covers feasibility studies, design engineering, detailed tender documentation, construction supervision, comprehensive project management, procurement support services in all areas of civil, electrical, mechanical, information technology and auxiliary medical service areas. Its important clients include

- Ministry of Health & Family Welfare and its Hospitals/Institutes
- Ministry of External Affairs and other Ministries

- State Governments and their Hospitals / Institutes
- PSUs / Other Institutes such as ICMR, CSIR, ICAR, DOBT, PIMS, PGI Chandigarh, Govt. of Punjab, Govt. of Haryana and other Business Associates.

HSCC, being Project executing company, in health infrastructure sectors, employs competitive and highly skilled cadres of Architects, Engineers, Economists, Chartered Accountants, Cost Accountants, MBAs and a pool of Consultants in the areas of Medicines and Corporate Planning, etc. HSCC enjoys a good working employee's relationship at levels.

In order to develop into a world class organization, thrust is on diversifying and expanding the operations and also the client base of the company. Further, the Company has also been exploring business operations abroad through Ministry of External Affairs.

The Company is an ISO 9001 accredited company. The Company has from time to time, taken various step to upgrade quality assurance system and degree of client satisfaction. The Company is "ISO 9001:2008" certified Company and has internal quality control as required for its various projects and assignments.

The Company follows good Corporate Government practices. Corporate Government Practices in the Company focus on transparency, integrity, professionalism, accountability and proper disclosure, Knowledge Management System, E-tendering, E-Procurement and Internal cum Concurrent Audit.

16.26.1 Major on-going Projects

- Super-Specialty & Emergency Blocks at Safdarjung Hospital, New Delhi
- National Cancer Institute at AIIMS Jhajjar (Hospital Work)
- Redevelopment of Lady Harding Medical College & associated Hospitals, New Delhi

- Upgradation of Nursing College – RAK, Delhi
- Expansion of Trauma Centre, AIIMS, New Delhi
- New Paid Ward at AIIMS, New Delhi
- Hostel Block at AIIMS, New Delhi
- Construction of Housing work at AIIMS Raebareilly
- Surgical Block at AIIMS, New Delhi
- Mother & Child Block at AIIMS, New Delhi
- New OPD Block at AIIMS, New Delhi
- Kalpana Chawla Medical College (Hospital Work), Karnal
- Satellite Unit of Post Graduate Institute of Medical & Educational Research at Sangrur (OPD & Main Work)
- Development of Cancer Hospital at Bathinda, Punjab
- Indian Institute of Integrative Medicine, Jammu
- Hospital Block at Fatehabad (Design & Engineering Work), Haryana
- NRHM- Chattisgarh NRHM- Uttar Pradesh & NRHM- Kerela & NRHM- Himachal Pradesh
- Construction of Super speciality Block in Neuro Sciences at NIMHANS Bangalore
- Mother & Child – Metro Block for Bangalore Metro Rail Corporation
- National Institute of Animal Biotechnology, Hyderabad
- Vaccine processing facilities for Institute of Veterinary Biological Products, Pune
- Construction of 750 Bedded Hospital (Phase I – 400 bedded) for IIT, Kharagpur
- Residential & Hostel Complex for New AIIMS, Bhubaneswar
- Construction of Super Speciality Block, OPD & Academic Block at Kolkata Medical College, Kolkata under PMSSY
- North Eastern Institute of Ayurveda & Homeopathy (NEIAH), Shillong, Meghalaya
- Upgradation of Govt. Hospital at Naharlagun, Arunachal Pradesh Medical College at Nahan, Hamirpur & Chamba, Himachal Pradesh
- Regional Institute of Paramedic & Nursing Sciences (RIPANS), Aizwal
- Upgradation of LGBRIMH at Tezpur (Main Building)
- Implementation for increase of UG seats from 100 to 150 intake P.A. for RIMS, Imphal
- Nurses Hostel & Auditorium work at LGBRIMI-Tezpur
- PMSSY Upgradation Phase III Projects at

<i>Rewa</i>	<i>Berhampur</i>	<i>Udaipur</i>
<i>Gwalior</i>	<i>Patiala</i>	<i>Bikaner</i>
<i>Jabalpur</i>	<i>Burla</i>	<i>Aurangabad</i>
<i>Vijayawada</i>	<i>Dibrugarh</i>	<i>Jhansi</i>
<i>Kota</i>	<i>Guwahati</i>	<i>Shimla</i>
<i>Allahabad</i>	<i>Latur</i>	<i>Panaji (Goa)</i>
<i>Darjeeling</i>		
- New AIIMS at Nagpur, Kalyani and Guntur
- Mizoram Institute of Medical Education and Research, Falkawn, Mizoram
- Lokopriya Bordoloi Institute of Mental Health, Tezpur, Assam
- 100 intakes Medical College at Pali, Rajasthan
- Housing & Hostel for Dr. R.P. Medical College, Kangra

16.26.2 Procurement Management Services

- Medical Equipment for Super Speciality & Emergency Block, Safdurjung Hospital, New Delhi.
- Medical Equipment for Kalpana Chawala Government Medical College, Karnal, Haryana
- Procurement of Equipment for Alla Sarita Vihar
- Medical Equipment for NEIGRIHMS, Shillong
- Medical Equipments for Bir Hospital, Kathmandu, MEA
- Medical Equipments for Yangon & Sittway Myanmar

16.27 HLL LIFECARE LIMITED (HLL)

16.27.1 Introduction

HLL Lifecare Limited (HLL), a Public Sector Enterprises of Government of India, under the administrative control of Ministry of Health & Family Welfare, was incorporated in the year 1966. HLL's first plant began operations on 5th April 1969 at Peroorkada in Thiruvananthapuram District in the State of Kerala, in technical collaboration with M/s

Okamoto Industries Inc. Japan. Today, with seven manufacturing plants, HLL has grown into a multi-product, multi-unit organisation addressing various public health challenges facing humanity. In 2003, when HLL had a modest turnover of INR 163 crores, it had set its sights on becoming a INR 1000 crore company by 2010. HLL not only surpassed this figure by 2010 but also drew a clear road map to achieve ten-fold growth by 2020.

Now, HLL is a Mini Ratna, Schedule B Central Public Sector Enterprise. HLL is the only company in the world which manufactures and markets such a wide range of contraceptives. Today, HLL has a capacity to produce 1.9 billion condoms annually, making it one of the world's leading condom manufacturers, accounting for nearly 10 percent of the global production capacity.

With a vast array of innovative products, services and social programmes to meet the country's healthcare needs, HLL Lifecare Limited is firmly on track, with its motto of 'Innovating for Healthy Generations'.

16.27.2 Financial Results 2015-16

The Company's financial performance, for the year ended March 31, 2016 is summarised below:

Financial particulars	Standalone (Rs. in lakhs)		Consolidated (Rs. in lakhs)	
	2015-16	2014-15	2015-16	2014-15
Revenue from operations (gross)	107208.46	106438.70	113825.19	111363.76
Excise duty	917.27	633.74	1089.54	810.69
Revenue from operations (net)	106291.19	105804.96	112735.65	110553.07
Other income	876.89	398.37	816.33	455.49
Total income	107168.08	106203.33	113551.98	111008.56
Profit before tax	3803.04	3752.79	4202.48	3903.12
Tax expense	914.77	597.65	1153.68	589.22
Profit for the year	2888.27	3155.14	3170.04	3313.90
Dividend (including tax on distributed profits)	465.87	465.87	465.87	465.87
Transfer to General Reserve	2422.40	2689.31	2631.49	2801.22

16.27.3 Performance Review and Outlook

HLL is witnessing an exciting phase of growth and is working on a long term plan "Vision 2020" which will steer the Company towards meeting its strategic objectives. HLL is on its path to building capabilities in the identified focus areas and has initiated various steps for augmenting production capacity and product

line apart from diversifying business activities with enhanced stress on market penetration, which will position the Company among the high performers in the industry.

16.27.4 Physical Performance: 2015-16

A review of HLL's manufacturing activities is given below:

Sl. No.	Product	Unit	Installed Capacity	Quantity Manufactured (Previous year)	Capacity utilization (%)
1	Condoms	M.pcs	1892.00	1795.45 (1819.00)	95%
2	Blood Bags	M.pcs	12.50	11.80 (12.52)	94%
3	Suture	L. Doz	6.00	1.91 (1.74)	32%
4	Cu- T	M.pcs	5.50	5.95 (4.87)	108%
5	Steriodal OCP	Million cycles	98.67	44.32 (41.25)	45%
6	Non-Steroidal OCP	Million Tablets	30.00	29.77 (38.81)	99%
7	Sanitary Napkin	M.pcs	392.00	228.48 (126.44)	58%
8	Pregnancy Test Card	M.pcs	26.00	8.55 (13.67)	33%

16.27.5 MAJOR MARKETING INITIATIVES AND ACHIEVEMENTS

HLL plans to implement the modern marketing practices viz. Digital marketing, E-commerce strategy, M-Commerce in the ensuing years to strengthen the Company's domestic and global presence.

The significant marketing initiatives and achievements of the company during the year 2015-16 are stated below:

➤ Moods was identified as POWER BRAND 2016 "the most recognized brand of India" featuring in the

➤ "the most recognized brand of India" featuring in the selected 67 brands from India.

- Moods Deos has become a 2 cr brand.
- Happydays has become a 1 cr brand.
- Hinglact became 9 crore brand.
- Five pharma brands reached 1 crore mark (Xoom, M-care, Novex, Mifepro and Emily).
- Improved the blood component yield through Ilicare CX in 7 places in TN

- Launched OB kit sutures and soft hernia kits and medigard-I
- Pharma Division Achieved 100% of the target and registered a growth of 45%.
- Velvet – Latex based Female condom was launched during the National Family Planning Summit on 5th April 2016 at New Delhi by the Hon'ble Health Minister of India, Shri J. P. Nadda.
- MOODS Silver launched in Domestic Market.
- Installed 2117 Vending machines (MINI) and 1034 Sanitary Napkin Incinerators till date. These vending machines have sold 1.72 million Sanitary Napkins (IHappy Days) till date.
- VENDIGO- Sanitary Napkin Vending Machine and Incinerators are approved by SWACHH BHARAT MISSION, Ministry of Urban Development - Government of India.
- HLL is ranked 41st company among 425 Gynec companies (improved by 11 ranks).
- Export Division gained entry in 17 new markets globally.
- MOODS GOLD now available in UAE, Oman, Kingdom of Saudi Arabia, Qatar, Bahrain, Zambia, Namibia, Botswana, Bangladesh.
- Expanded business with IDA foundation. (21.28 Crs).
- Long Term Agreement (LTA) signed with UNFPA for supplying IUD, Female Condoms & Male Condoms.
- Launched AMRIT pharmacy in AIIMS Delhi on 16th November 2015.
- 18915 patients benefited from AMRIT Pharmacy in AIIMS, New Delhi with an average patient footfall of 161 patients per day till 31st March 2016.
- 14 AMRIT Pharmacies to be functional before 30th June 2016.
- Free Generic Pharmacy (FGP) at AIIMS serviced

4,46,740 patients during 2015 - 16.

- We are in process of setting up 39 “Jansanjivani” outlets in Karnataka.
- The LCC operations showed an annual growth of 52%.
- The LCCs at Cuttack and Trivandrum achieved a monthly sales figure of more than 100 Lakhs. LCC Cuttack achieved an annual turnover of Rs.11.88 crore.

16.27.6 Subsidiaries and Joint Ventures

HLL has three subsidiary companies and one joint venture Company. The summary of performance of the subsidiary and joint venture companies is provided below:

a) HLL Biotech Limited (HBL)

HLL Biotech Limited (HBL) is a wholly owned subsidiary company has completed fourth year of its incorporation on 12th March 2016. The Authorized Share capital of the Company stood at `285 Cr. as the same of previous year. The paid up Capital of the Company has been increased from `178.01 Cr. to `274.89 Cr. During the year the Company received equity infusion of 96.88 Cr.

During the year under review HBL has successfully accomplished mechanical completion of the facility in Feb'2016. The Infrastructure systems for water & HVAC are ready for the validation activities which are expected to start by May 2016. The production of trial batches of vaccines is expected to commence by January 2017 and the commercial production by April 2018 after clinical trials.

HBL has successfully developed Vero cell culture derived Rabies vaccine by in-house research. Preclinical studies followed by two years real time and accelerated stabilities of the laboratory scale vaccine was performed successfully demonstrating the safety, efficacy and stability of the vaccine.

HBL has started R&D activities for in-house process development of JE vaccine seed isolate sourced from NIV, Pune. Methods for adapting JE virus isolate on Vero cells is being carried out in the R&D Lab.

b) Goa Antibiotics & Pharmaceuticals Limited (GAPL)

The authorized and paid up share capital of GAPL is `25 Cr. and `19.02 Cr. respectively as on 31st March 2016. The shareholding of HLL Lifecare Limited (holding company) in GAPL is 74% and balance 26% is held by EDC Limited. During the year under review the Revenue from operations has grown by 2.34% as compared with the previous year. The net profit of the Company has grown by 28% as compared with the year before.

GAPL is a Pharmaceutical formulation manufacturing Company and manufactures drugs in the range of Allopathic, Ayurveda and Homeopathic systems of medicine. Considering the future business plans, business prospects from overseas markets, contract manufacturing opportunities, and to meet WHO-GMP a independent production block for manufacturing of Cephalosporin range of tablets/capsules and Dry powder parenteral products(DPP) is proposed to establish at GAPL factory location. The proposed new block for Cephalosporin range of formulations will not only facilitate compliance with cGMP norms but also will enhance scope for additional business prospects in the range of Cephalosporin injections, tablets as well as capsules. Further, installation of a state of the art new facility will also support product contract manufacturing as well as product export to regulated and non-regulated markets and thus enable the Company to explore new business avenues.

c) HLL Infra Tech Services Limited (HITES)

HITES was incorporated on 3rd April 2014 as a wholly owned subsidiary of HLL Lifecare Limited to carry on the business of providing services viz., Infrastructure Development, Facilities Management, Procurement Consultancy and allied services, foreseeing the enormous scope of business in these segments.

During the year 2015-16 HITES achieved a commendable Turnover of `1953.81 lakhs. The Profit after tax was increased to `116.46 lakhs and the Net Worth has grown to `77.66 lakhs.

HITES is primarily operating in healthcare infrastructure development and allied field. With the

government favorable policies, the Company is expected to increase the performance in all fields in the coming years.

d) Life Spring Hospitals (P) Limited (LSH)

In 2015-16, the business income of LifeSpring Hospitals (P) Ltd (LSH), the 50:50 joint venture between HLL Lifecare and Acumen Fund, had grown by 12.41% as compared with business income for year 2014-15. LSH has facilitated delivery of 6461 babies during the year under review.

Presently, the JV is running a cluster of 12 hospitals in Hyderabad and one hospital at Vishakhapatnam in Andhra Pradesh. Among these, 4 hospitals have completed 8 years, 3 hospitals have completed 6 years, remaining 6 hospitals have completed 4 years of operations and the hospital at Vishakhapatnam has completed 8 months as on 31.03.2015. Normally, for hospital business the gestation period is fairly long. As the services at LifeSpring Hospitals are offered at very affordable rates, aimed at meeting social commitments, it would normally take 5 - 7 years to achieve breakeven level in operations. Among the 6 - 8 year old hospitals, 6 hospitals are generating profits from 2013-14. Out of the 12 hospitals in Hyderabad, 6 hospitals have reported profit before tax during the year, 2 hospitals made cash profits and 2 hospitals made profits at Unit level.

In the current year 2015-16, the performance at the Enterprise level has been steadily improving. The Company recorded a profit of `5.60 lakhs during 2015-16.

16.27.7 Procurement of goods from MSMEs

During the year 2015-16, HLL has procured goods of value of Rs.7,401.00lakhs from Micro, Small and Medium Enterprises (MSMEs) out of the total procurement of Rs.26,117.00 lakhs which is 28.34% as against the target of 20%. The Company has also conducted 14 Vendor Development Programmes for MSMEs.

16.27.8 Research & Development

Corporate R&D Centre (CRDC) of HLL is dedicated to carrying out multi-disciplinary research and

development aimed at creating scientific knowledge for new technology development and value addition of existing technologies in the healthcare field. CRDC is committed to achieving the vision through generation of knowledge base for novel technologies in healthcare field, value added R&D services that meet/exceed customer expectation and human resource development through quality improvement programmes along with safe and healthy work environment.

During the year 2015-16 HLL R&D received Drugs Controller General of India (DCGI) approval for conducting phase II clinical trial of coated copper T in India for a randomized, single blind, multi-center, parallel-arm, pilot scale study to ascertain the efficacy of coated copper T in reducing bleeding side effect as compared with Copper T 380 A for a maximum 1 year. The study will be carried out in 200 subject across 10 different sites spread nationally. CRDC also received state drug controller license to manufacture Coated copper T Intra uterine device for the purpose of examination, test or analysis for a period of 1 year.

16.27.9 Hindustan Latex Family Planning Promotion Trust (HLFPPT): HLFPPT is a not-for-profit professional health service organization set up by HLL Lifecare Ltd, carried out projects under the following thematic areas:

- i. RMNCH+A
- ii. HIV/AIDS Prevention, Care & Support
- iii. Health System Strengthening
- iv. Primary Healthcare through CSR initiatives
- v. Livelihood Generation
- vi. Strategic Partnerships

HLFPPT has been rendering support in implementation of Reproductive and Child Health, HIV and AIDS Prevention, Care and Support Programmes in partnership with the Ministry of Health & Family Welfare, Government of India, several State Governments and International Development Agencies.

With an active presence across 21 states/UTs and through 35 programmes, HLFPPT has been working on the entire spectrum of RMNCH+A (Reproductive, Maternal, Newborn, Child & Adolescent Healthcare) and HIV Prevention & Control. It has been an active contributor towards the goals of the National Health Mission, NACP, FP2020, MDGs and post-2015 SDGs, and a chosen collaborator for implementation of programmes for the Ministry of Health & Family Welfare, Government of India, State Government bodies, National & Global Development Agencies, top PSUs and corporate sector. In the last 24 year, HLFPPT has emerged as a pioneer in Social Marketing & Social Franchising and gradually evolved technical expertise on thematic areas of its work.